

2020 | EIGHTH
EDITION

ART OF THE POSSIBLE

U.S. Chamber International IP Index



U.S. CHAMBER OF COMMERCE
INTERNATIONAL
IP INDEX



GIPC

GLOBAL INNOVATION POLICY CENTER



The U.S. Chamber of Commerce's Global Innovation Policy Center (www.theglobalipcenter.com) is working around the world to champion intellectual property rights as vital to creating jobs, saving lives, advancing global economic growth, and generating breakthrough solutions to global challenges.

The U.S. Chamber of Commerce is the world's largest business federation representing the interests of more than 3 million businesses of all sizes, sectors, and regions, as well as state and local chambers and industry associations.



This report was conducted by Pugatch Consilium, (www.pugatch-consilium.com) a boutique consultancy that provides evidence-based research, analysis, and intelligence on the fastest growing sectors of the knowledge economy. Authors of this report are Meir Pugatch and David Torstensson.

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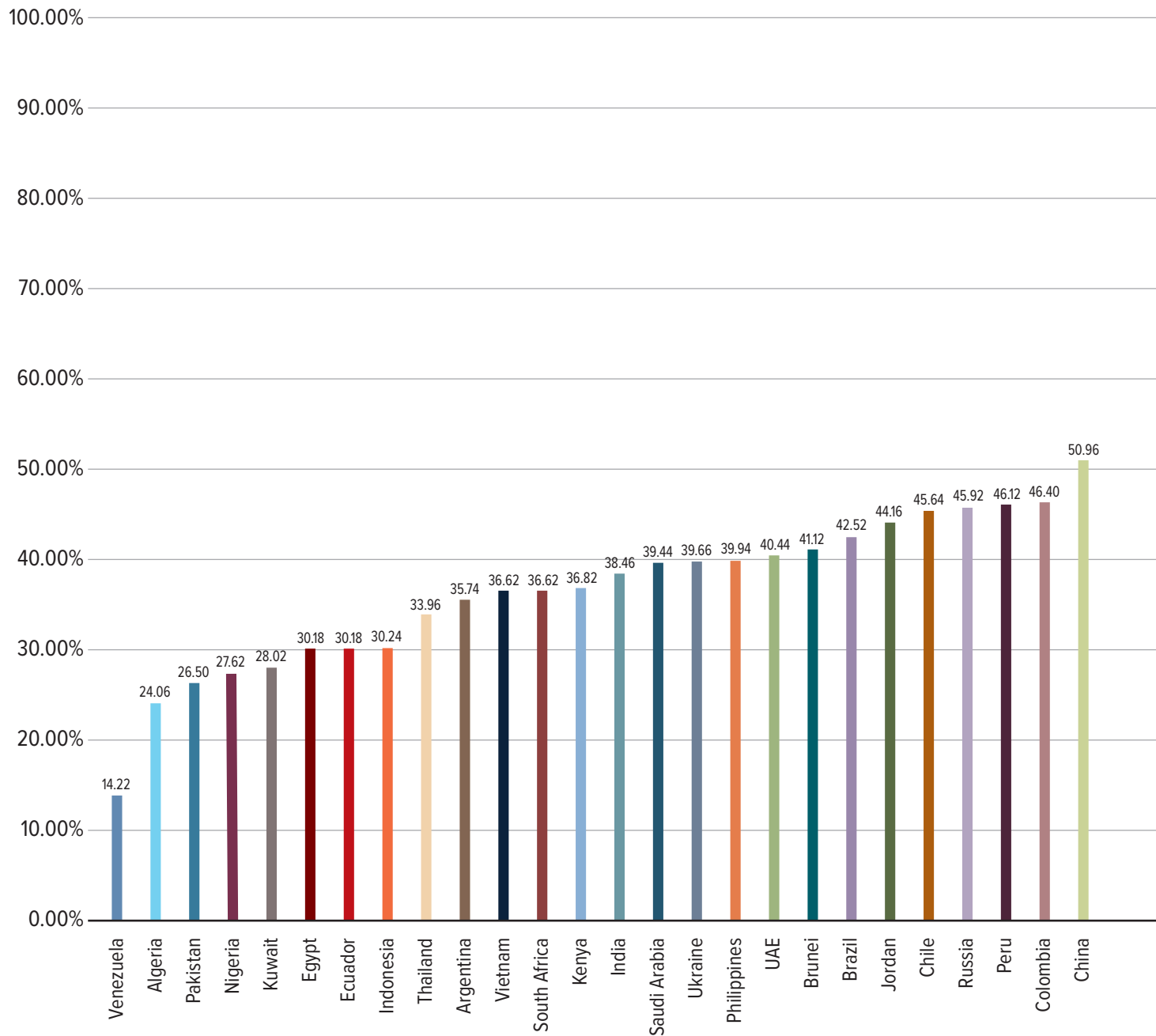
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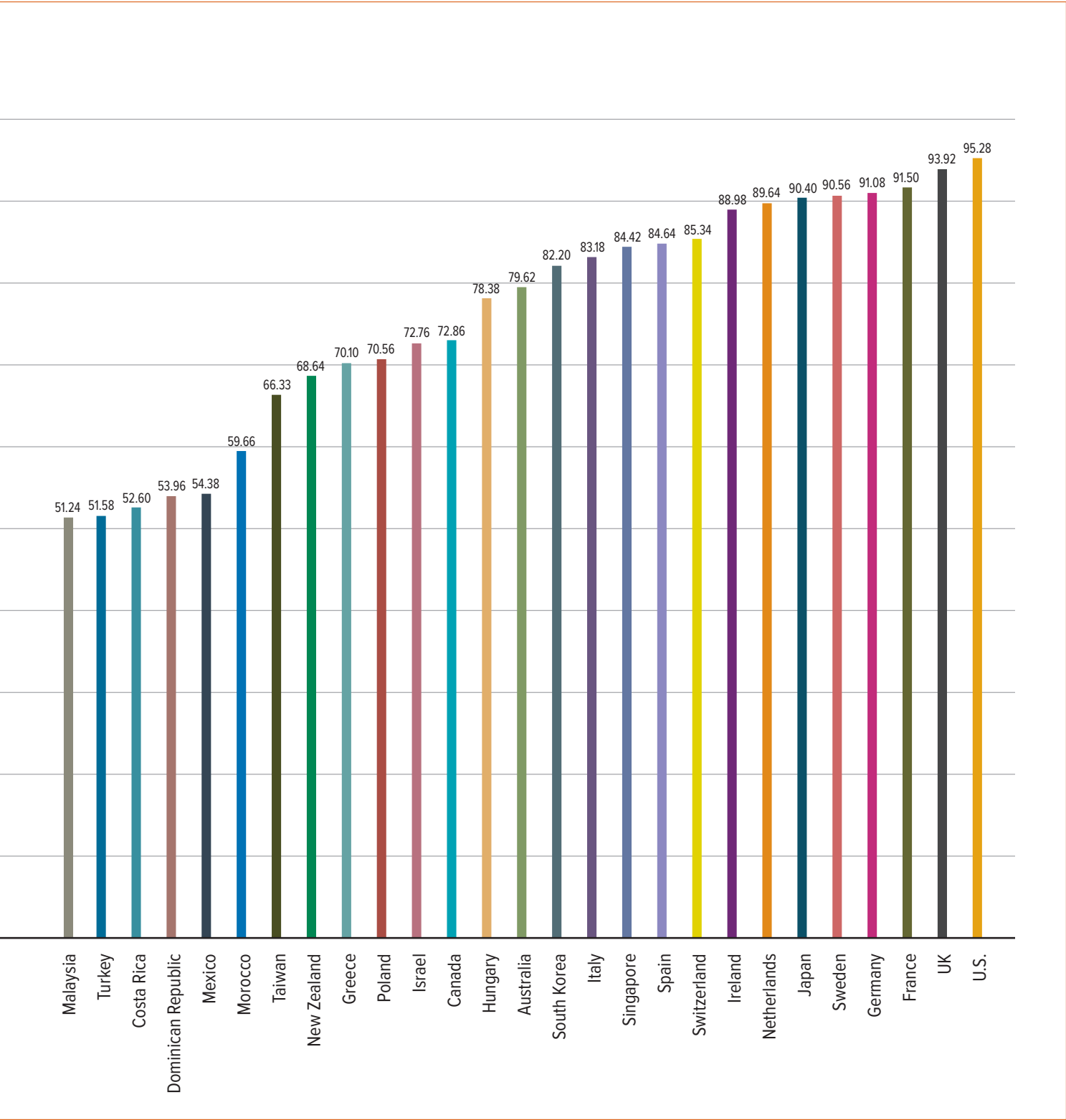
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2020 OVERALL SCORES





1. FOREWORD



At the start of a new decade, we celebrate the art of the possible.

Since the first edition of the U.S. Chamber International Intellectual Property Index (IP Index) in 2012, countless new life-changing technologies, life-saving medicines, and life-enhancing creative works have improved our human experience.

Our smartphones are millions of times more powerful than the Apollo spacecraft that took humans to the moon many years ago. Breakthroughs in gene sequencing have delivered personalized medicine for some of our sickest patients. New therapies for previously untreatable diseases – from Hepatitis C to cystic fibrosis to sickle cell anemia – have turned grim prognoses into optimistic ones. Music, movies and artwork have created cultural shifts and inspired a better understanding of the world around us.

To sum it up, we can do so much now that we couldn't do before.

And it's all because innovators everywhere strove toward the art of the possible. They recognized that the possible isn't an immovable fixture; it's elastic, it's evolving, and it's constantly bounding forward. The possible isn't easy or plain; it's hard-fought and speculative.

Innovators relentlessly chase innovation wherever it is welcomed, putting together the brightest and most creative minds with the resources to try, fail, and try again. They combine sweat equity with financial resources. And, they invest in making sure that innovation reaches consumers all around the globe. It is the virtuous circle of IP-enabled progress – that makes the next decade even more promising than the last.

IP protections show innovators that their investments are valuable and that their work is worthy. IP protections allow those investments to disrupt markets, spur economic growth, and stimulate competitiveness.

Now, the Index helps track new opportunities to strengthen those protections even further, because as the global IP ecosystem becomes more robust, so does global innovative and creative output.

What will the next decade of innovation and creativity hold?

The impossible is what's possible.

David Hirschmann
President and CEO
Global Innovation Policy Center
U.S. Chamber of Commerce

2020 INTERNATIONAL IP INDEX EXECUTIVE SUMMARY

The 2020 U.S. Chamber International IP Index creates a template for economies that aspire to become 21st century, knowledge-based economies through more effective IP protection. With a robust IP ecosystem, economies can unleash the Art of the Possible, taking the ideas and creations of the mind and transforming them into the next generation of technologies, medicines, and creative works that enrich our lives. Economies large and small and developed and developing can leverage effective IP standards to foster innovation and creativity, attract greater foreign direct investment (FDI), and stimulate economic and global competitiveness.

Geographic Coverage

In its eighth edition, the Index maps the IP ecosystem in 53 global economies, representing over 90% of global GDP. Three new economies added this year are in bold.

Algeria	France	Mexico	Spain
Argentina	Germany	Morocco	Sweden
Australia	Greece	Netherlands	Switzerland
Brazil	Hungary	New Zealand	Taiwan
Brunei	India	Nigeria	Thailand
Canada	Indonesia	Pakistan	Turkey
Chile	Ireland	Peru	U.S.
China	Israel	Philippines	UAE
Colombia	Italy	Poland	UK
Costa Rica	Japan	Russia	Ukraine
Dominican Republic	Jordan	Saudi Arabia	Venezuela
Ecuador	Kenya	Singapore	Vietnam
Egypt	Kuwait	South Africa	
	Malaysia	South Korea	

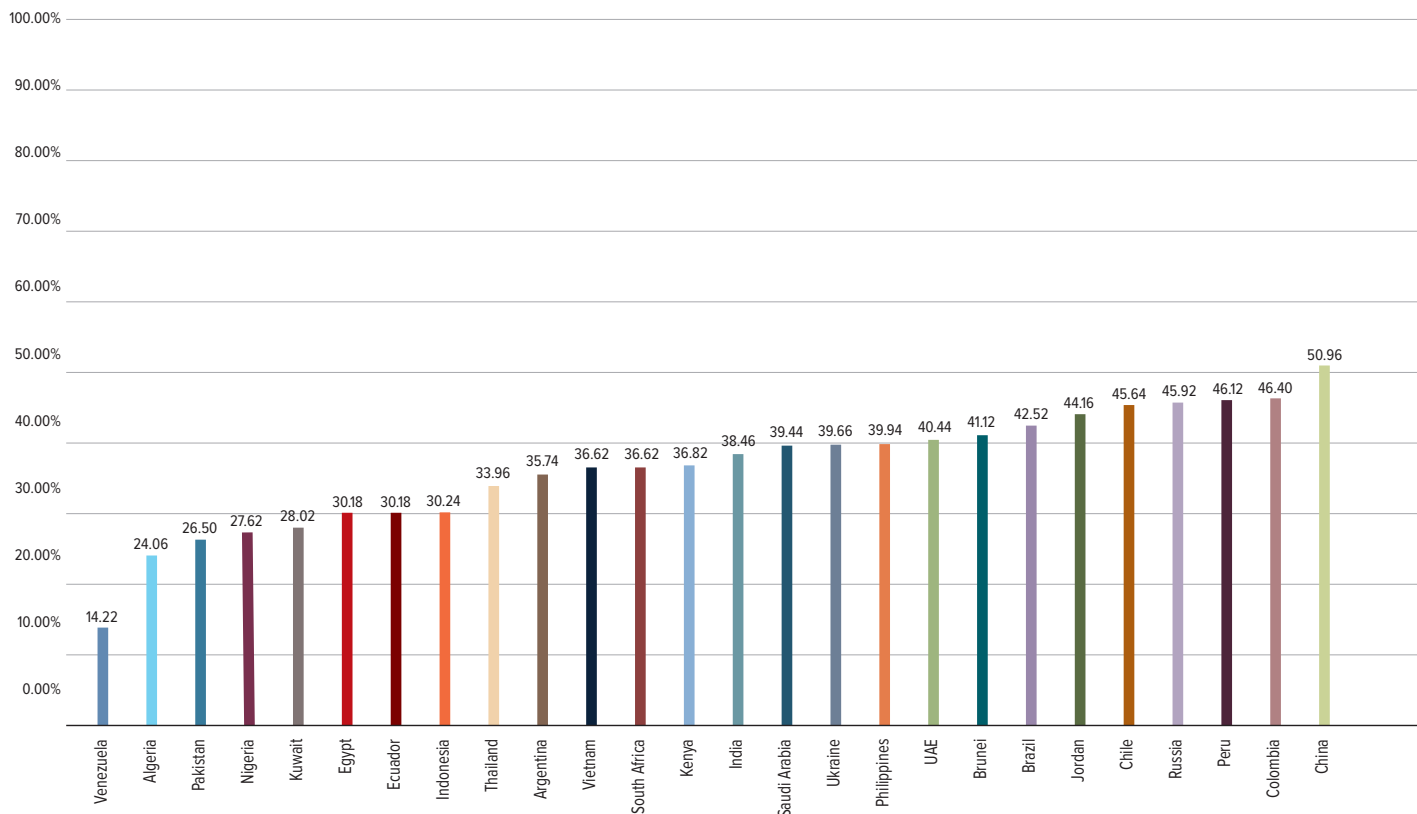
The Index evaluates the IP framework in each economy across 50 unique indicators which industry believes represent economies with the most effective IP systems. The indicators create a snapshot of an economy's overall IP ecosystem and span nine categories of protection: patents, copyrights, trademarks, design rights, trade secrets, commercialization of IP assets, enforcement, systemic efficiency, and membership and ratification of international treaties.

New Indicators

The Index is a continuously evolving tool that seeks to benchmark the emerging challenges IP owners face in global markets around the world. The 2020 Index includes five new indicators and two additions to existing indicators:

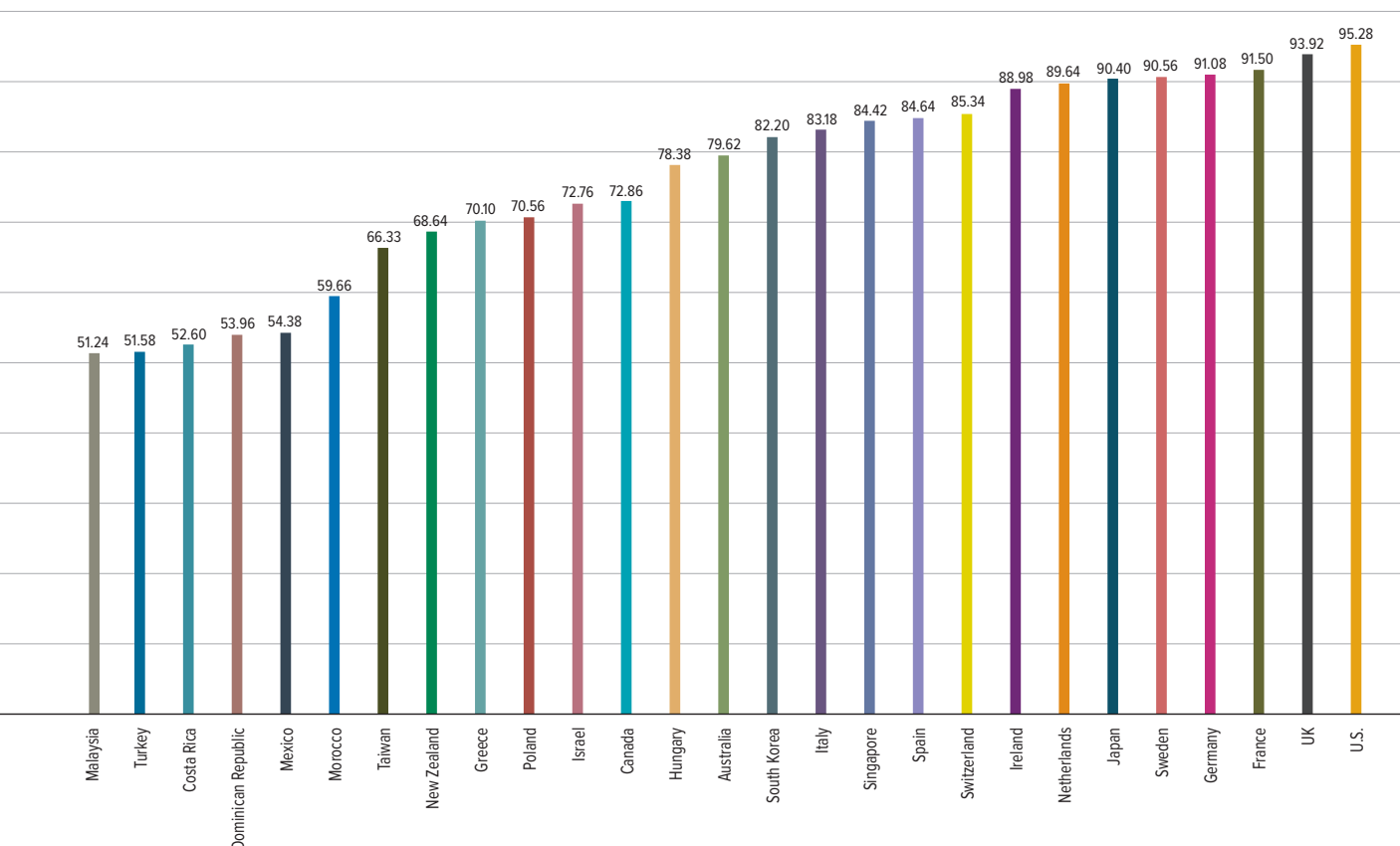
- Plant variety protection, term of protection (Indicator 4)
- IP-intensive industries, national economic impact analysis (Indicator 43)
- Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991 (Indicator 47)
- Membership of the Convention on Cybercrime, 2001 (Indicator 48)
- The Hague Agreement Concerning the International Registration of Industrial Designs (Hague Agreement and Geneva Act) (Indicator 49)
- Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks (Added to Indicator 45)
- Patent Cooperation Treaty (Added to Indicator 46)

2020 Overall Scores



Key Findings

- **IP remained at the crux of the China trade dispute.** The United States and China signed a Phase One trade agreement on January 15, 2020. The agreement includes reforms to better protect against trade secrets theft, pharmaceutical-related IP and patent infringement, and bad faith trademarks. The agreement also includes provisions to strengthen judicial enforcement of IP and commitments to combat counterfeiting and piracy. The Phase Two agreement is expected to focus on IP reforms—many of which are noted in the Index—and will create an opportunity to continue to improve IP protection globally.
- **Several emerging markets made progress towards implementing a range of pro-IP measures in order to attract investment, though challenges remain.**
 - In anticipation of the Phase One agreement, China introduced a number of IP reforms, including measures to strengthen the licensing and technology transfer environment, amendments to increase fines for bad faith trademark applications, and new legal protections for trade secrets.
 - In addition to IP reforms in China, both **India** and **Brazil** passed a series of reforms and issued precedential court rules that strengthen IP enforcement, address administrative inefficiencies, and increase penalties for IP infringement.

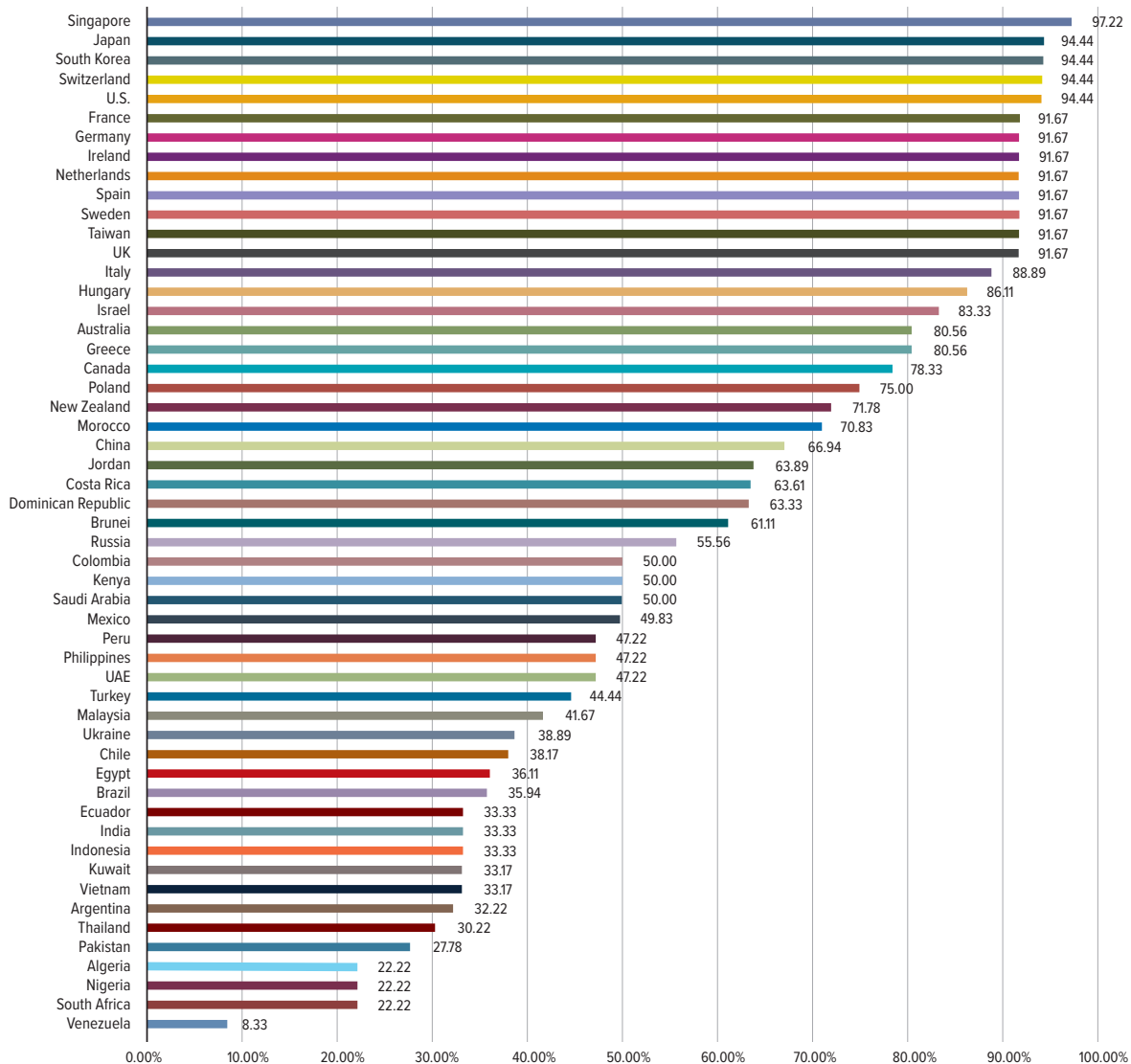


- **Peru** achieved the greatest overall score improvement of the Latin American economies benchmarked in the report. Additionally, **Vietnam's** score increased the most out of the Asian economies as a result of legislation to increase damages awarded for IP infringement and participation in a number of international IP treaties.
- **Developed and developing economies alike are undermining biopharmaceutical innovation, which reduces access to life-saving medicines and technologies and is the wrong approach to address health care costs.**
 - In the **EU**, the Supplementary Protection Certificate (SPC) manufacturing and export exemption entered into force in July 2019, resulting in a .25 point drop for the EU economies benchmarked in the Index. Designed specifically to bolster the European generics industry, in practice, the export exemption will significantly undermine the investment in developing new treatments and cures in the EU.
 - Economies of all levels of development – from the **Netherlands** to **Greece** to **Chile** – expanded the grounds on which compulsory licenses can be issued. Utilizing compulsory licenses as a tool for domestic cost containment fundamentally undermines the legal certainty which effective IP systems provide.
 - Recent proposals by some **U.S.** policymakers to use compulsory licenses as a cost-containment tool risk killing the model of innovation that since the mid-1980s has been providing Americans, and patients around the world, with new and better health technologies and medicines. Taken together with proliferating proposals for artificial price controls, such as HR 3, and importation of international pricing indexing and foreign-sourced medicines, the use of these licenses poses an existential threat to the United States' position as the undisputed global leader in biopharmaceutical innovation.
- **Recent free trade agreements (FTAs) have failed to strengthen global IP standards, and future agreements must do more to raise the bar for IP protection.**
 - The final **United States-Mexico-Canada Agreement** represented a significant missed opportunity to elevate IP protection for innovators and creators across North America. While the original USMCA included many critical, high-standard IP protections, key life sciences IP protections were removed from the final deal struck in December 2019.
 - A number of FTAs passed in recent years – including the **EU-Mercosur Association Agreement**, the **Indonesia Australia Comprehensive Economic Partnership Agreement**, and the **Comprehensive and Progressive Agreement for Trans-Pacific Partnership** – omit many IP standards included in other 21st century, post-TRIPS FTAs.
- **Emerging markets are increasingly using international treaties to signal that their economy is willing to engage and abide by international IP standards.**
 - Several major emerging economies – including **Argentina, Brazil, India, and Peru** – joined Patent Prosecution Highway (PPH) agreements to expedite patent examination and address backlogs.
 - Nearly all the economies benchmarked in the Index are a contracting party to one or more of the treaties benchmarked in the Index, sending a strong signal that economies of all levels of development are willing to participate in the global IP system.

Category-by-Category Results

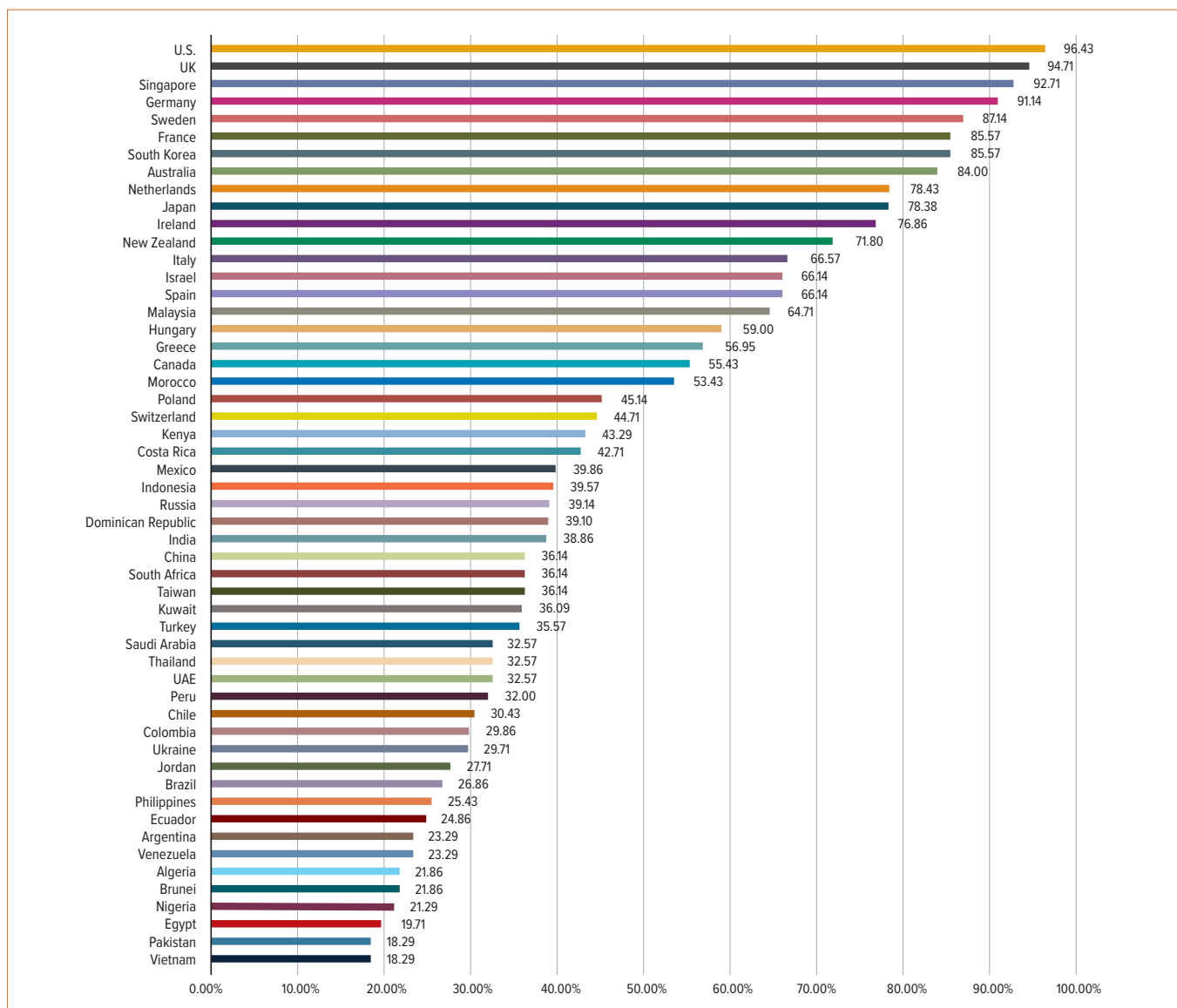
Patents, Related Rights, and Limitations

- While 13 high-performing economies receive over 90% of the overall score, with Singapore leading the way, challenges remain to securing effective patent protection in even the most developed economies.
 - In the **United States**, U.S. Patent and Trademark Office Director Andrei Iancu sought to address long-standing uncertainty through new guidelines on patentable subject matter and reform of the inter partes review (IPR) process.
 - Canada's** Patented Medicine Prices Review Board (PMPRB) guidelines and the limited patent term restoration framework weaken the environment for biopharmaceutical innovators seeking to invest in R&D and undermine access to the newest innovative medicines in Canada.



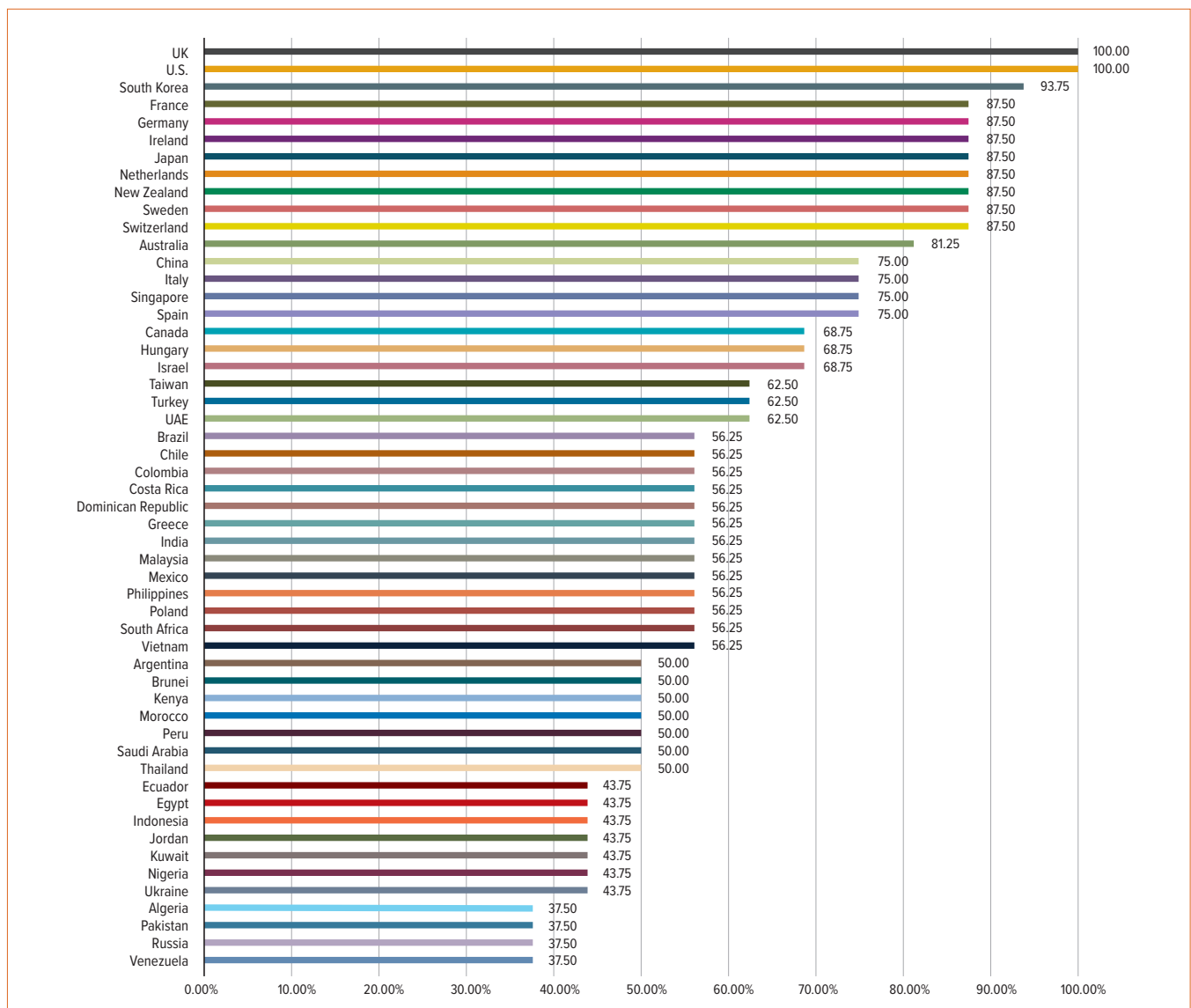
Copyrights, Related Rights, and Limitations

- Creators continue to face significant obstacles to securing effective copyright protection in global markets, with 33 of the economies benchmarked failing to achieve 50% of the available score.
- However, a number of economies took steps to bolster protection for copyrighted content online. **Ecuador**, **Greece**, **India**, **Israel**, and **Peru** utilized injunctive relief, anti-piracy legislation, or administrative orders to disable access to pirated content provided through copyright-infringing sites.
- In **Malaysia**, the government used its broad authority to censor content to disable access to infringing-content provided through set-top boxes, which are an increasingly prevalent means to share pirated content throughout Asia.



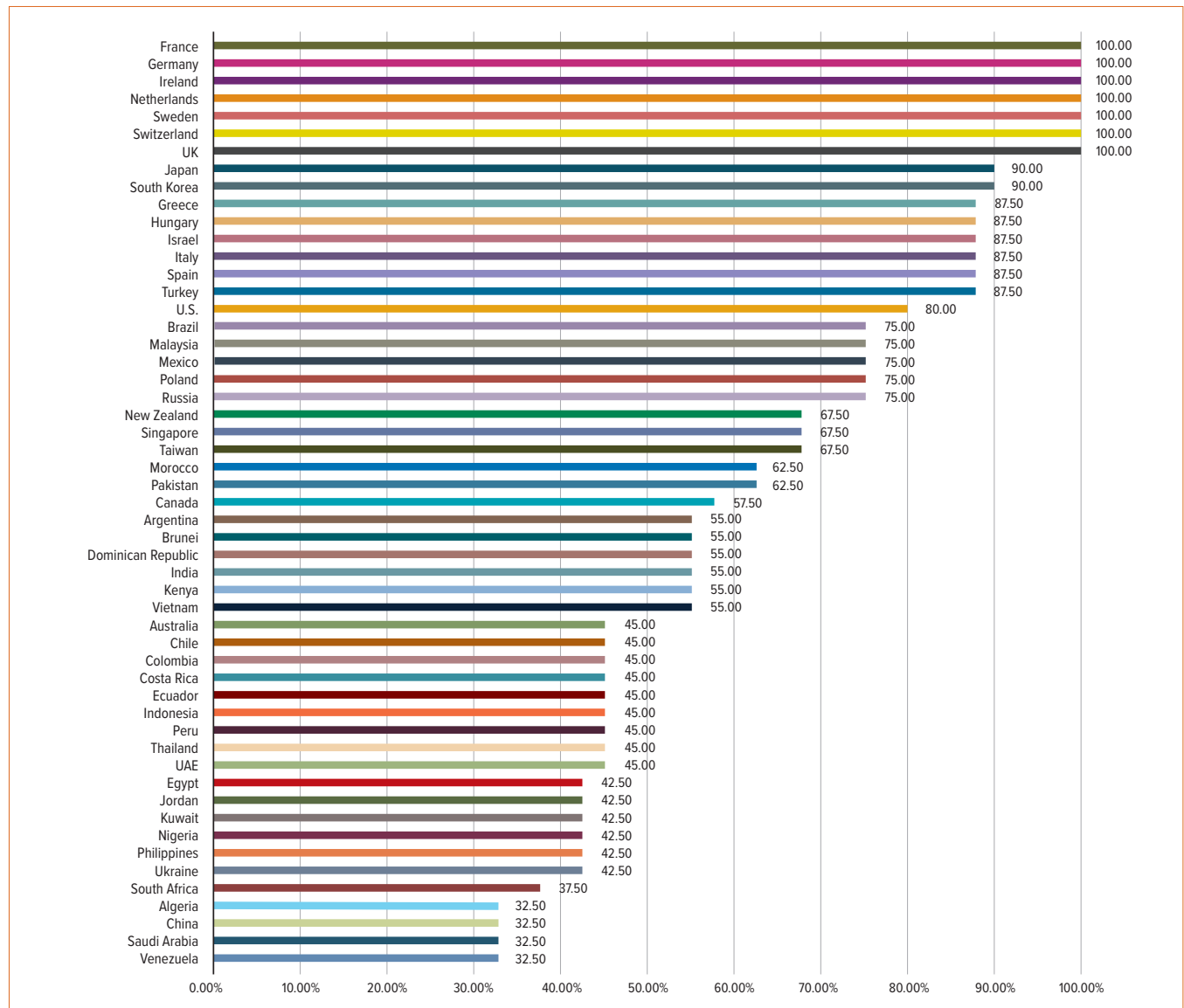
Trademarks, Related Rights, and Limitations

- While many of the Index economies have basic forms of trademark protection in place, the proliferation of counterfeit goods in the online ecosystem continues to create challenges for rights-holders in markets around the world. In order to better protect consumers, courts and governments in key global markets advanced stronger trademark enforcement mechanisms online.
 - In the **EU**, two European Court of Justice rulings established an obligation for online merchants to take down IP-infringing material in online auction houses.
 - In **India**, two Delhi High Court cases established a potential precedent that intermediaries and online marketplaces must remove patent-, copyright-, and trademark-infringing content upon notification from the rights-holders.



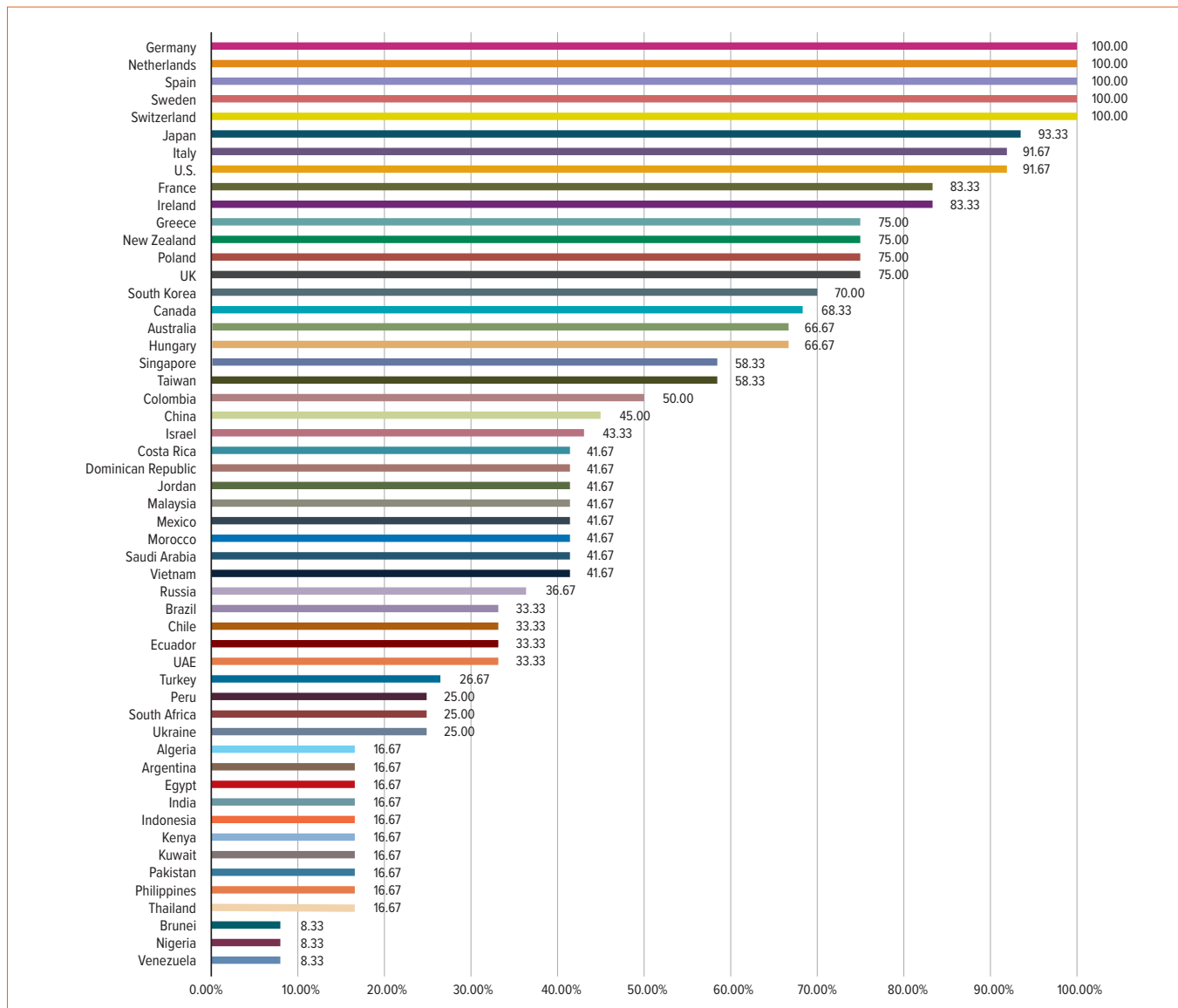
Design Rights, Related Rights, and Limitations

- IP rights pertaining to industrial design are becoming increasingly important to IP owners, with the number of design applications increasing from less than 200,000 in 1995 to over 1 million in 2018.
- Given the growing prevalence of design rights, many of the economies benchmarked in the Index have some protection in place, with an average score of 64.20% for all the economies benchmarked.
 - Over the last year, both **Chile** and **Taiwan** extended the design rights term of protection while **Kenya** eliminated burdensome registration requirements for design rights applications.



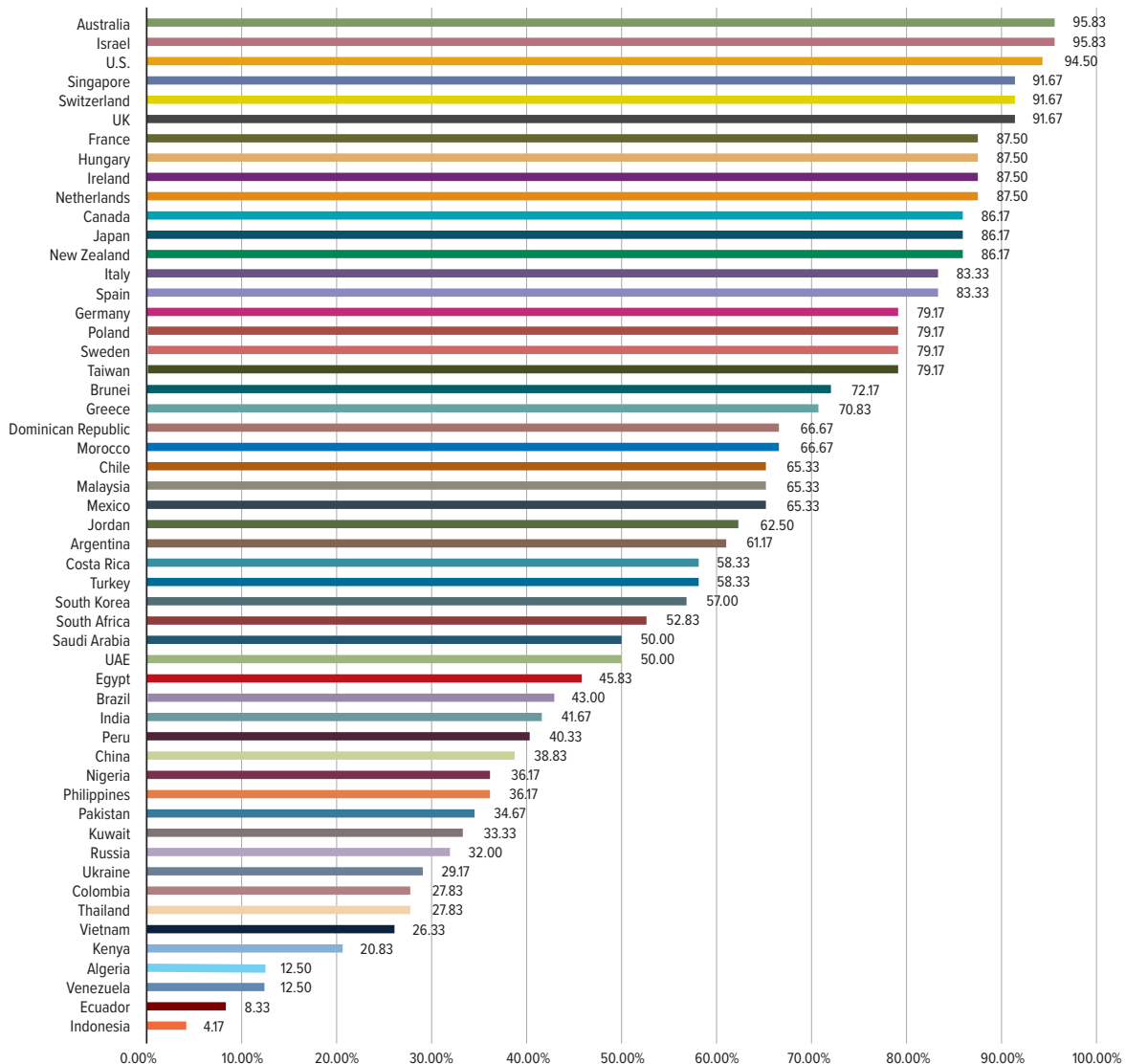
Trade Secrets and the Protection of Confidential Information

- Many economies do not have specific trade secrets legislation in place but instead rely on laws relating to employment contracts and disclosure of confidential information. However, a number of economies have recognized this gap and taken steps to better protect trade secrets.
 - In the **EU**, the Trade Secrets Directive sets common minimum standards for trade secrets protection and enforcement. However, the directive does not include criminal sanctions for trade secrets theft, leading to a wide variance in the availability of or absence of criminal sanctions across the EU.
 - In Asia, both **South Korea** and **China** introduced measures to bolster trade secrets protection. In South Korea, new legislation strengthened penalties for trade secrets theft while Chinese amendments to the Anti-Unfair Competition Law included a more comprehensive definition of trade secrets and increased the penalties for theft. The Phase One China agreement with the United States also has fulsome provisions on trade secrets.



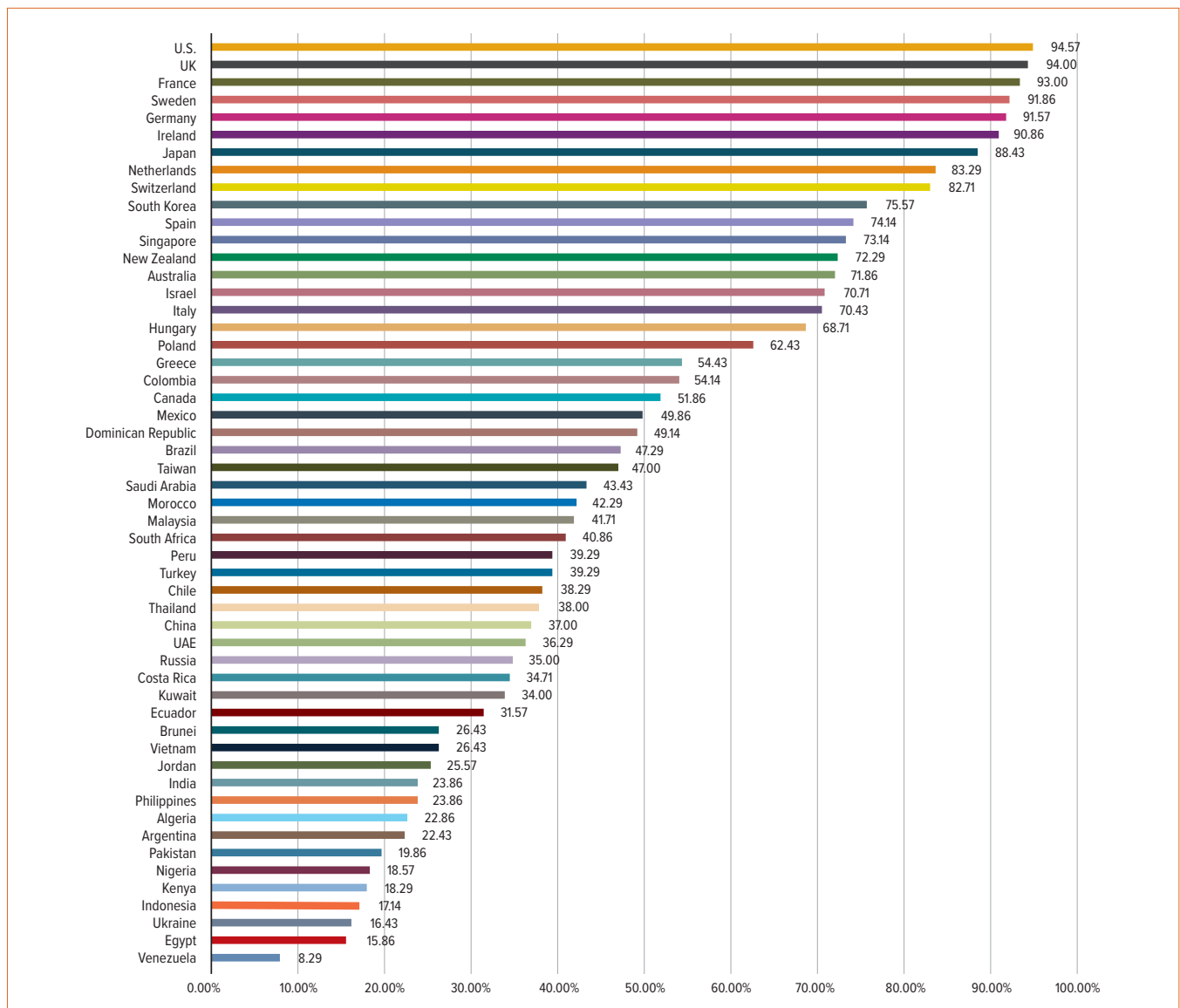
Commercialization of IP Assets

- Technology transfer and licensing policies are critical mechanisms that translate the newest innovative and creative ideas into commercially available products. The most effective technology transfer systems are underpinned by IP frameworks that minimize barriers and facilitate market-based partnerships.
 - Recognizing the importance of an efficient technology transfer framework, both **China** and **UAE** introduced reforms to eliminate barriers to market entry in order to facilitate voluntary technology transfer and licensing agreements.
 - Additionally, **Singapore** and **Switzerland** introduced new R&D and IP-based tax incentives to facilitate investment in innovative and creative goods and services.
 - However, a number of economies' governments – including **Algeria, Indonesia, Nigeria, Russia, Thailand, and Turkey** – continue to intervene in the setting of licensing terms, which create barriers for foreign innovators and creators seeking to operate in the market.



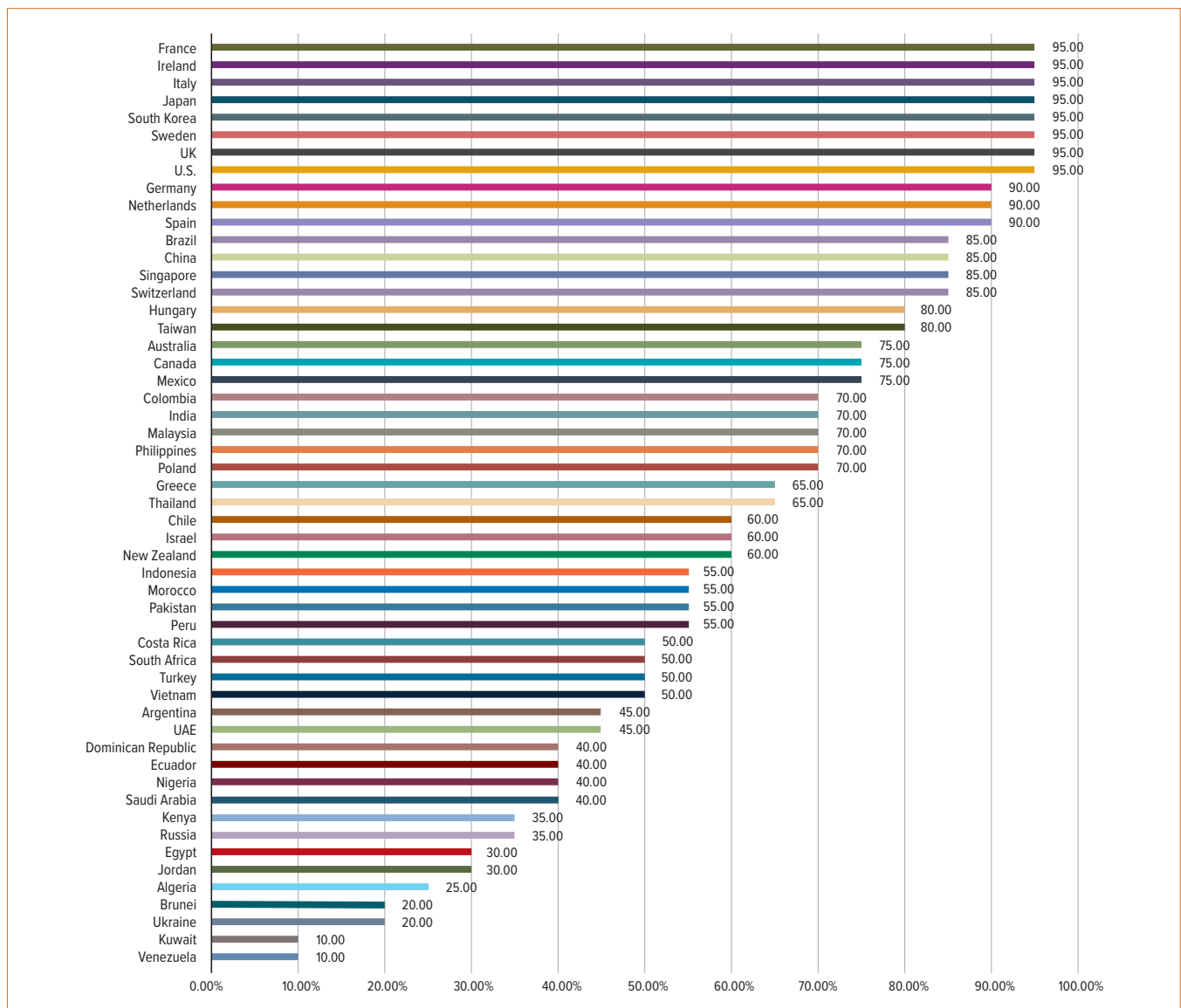
Enforcement

- Enforcement of IP rights continues to be a challenge across global markets, with only 21% of the economies included achieving a score of 50% or more. However, a number of markets took steps to strengthen IP enforcement in 2019.
 - While the government of **Brazil** introduced a new criminal enforcement initiative, the government of **India** strengthened civil enforcement measures and awarded substantive damages in two IP infringement cases.
 - In **South Korea**, the government further strengthened its IP enforcement framework with amendments that increased the basis for which damages can be awarded for patent infringement and trade secrets theft.



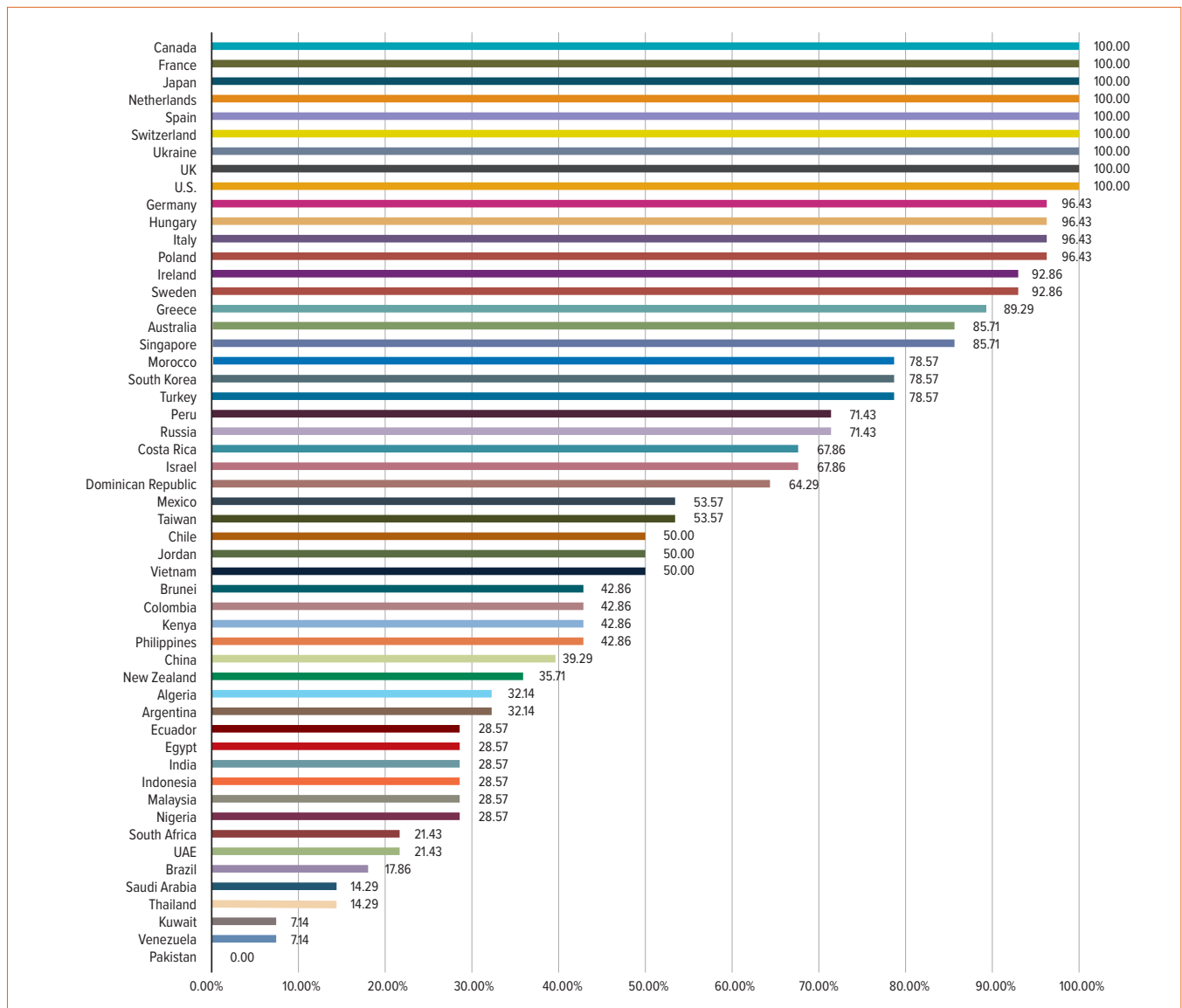
Systemic Efficiency

- Many economies benchmarked in the Index have committed to implementing a strong foundation for IP policy through measures to enhance systemic efficiency.
 - In **Saudi Arabia**, the government introduced new IP awareness campaigns and held public consultations on IP policy. Similarly, in **Brazil**, the government created an Interministerial Group on Intellectual Property to coordinate the government's IP policy and conduct public consultations on the policy-making process.
 - While many of the developed Index economies benchmark the economic impact of IP-intensive industries, a number of emerging markets – including **Argentina, Malaysia, Mexico, Morocco**, and **Taiwan** – also measure the relationship between IP rights and economic activity.



Membership and Ratification of International Treaties

- Participation in international treaties reflects an economy's willingness to join the international IP community and embrace high-standard IP protection.
 - While many countries struggle to provide adequate copyright protection, 77% of the economies included in the Index have signed and ratified the **WIPO Internet Treaties**, illustrating that the effective implementation of the tenants of the treaty continues to create challenges for copyright-intensive industries operating in global markets.
 - Less than half of the economies benchmarked in the Index have signed and ratified the **Membership of the Convention on Cybercrime** and the **Hague Agreement Concerning the International Registration of Industrial Designs**, two of the new treaties added to the Index in 2020.



Conclusion

As economies aspire to stimulate economic growth and foster greater global and region competitiveness, effective IP protection will be key to achieving this goal. With a robust IP framework, economies can unleash the Art of the Possible and harness the limitless benefits that effective IP systems provide.

ECONOMIES WITH EFFECTIVE IP PROTECTION



39% more open for business and attractive to foreign investment



70% more likely to produce more innovative output



33% more likely to have greater private-sector investment in R&D activities



38% more likely to attract venture capital and private equity



Have 26% greater global competitiveness



Have 14 times more clinical trial activities and 12 times more clinical research on biologic therapies



Provide 2-3 times greater access to licensed music content



Have 6 times more high-skilled researchers and 78% increase in the competitiveness of human capital.

3. OVERVIEW OF THE EIGHTH EDITION

Now in its eighth edition, the U.S. Chamber of Commerce's International Intellectual Property (IP) Index continues to provide an important industry perspective on the IP standards that support growth in innovative and creative industries in economies around the world. The Index is a unique and continuously evolving instrument. It not only assesses the state of the international IP environment, but also provides a clear roadmap for any economy that wishes to be competitive in the 21st century knowledge-based global economy. Large or small, developing or developed, economies from around the world can utilize the insights about their own national IP environments as well as those of their neighbors and international competitors to improve their own performance and better compete at the highest levels for global investment, talent, and growth.

Economies included

This edition of the Index covers 53 economies, with the Dominican Republic, Greece, and Kuwait added as three new economies in 2020. Together, these economies represent both a geographical cross-section of the world and most global economic output, together contributing over 90% of global gross domestic product (GDP).

As Table 1 shows, the Index includes economies from all major regions of the world and is truly a global measure.¹

Table 1: Eighth edition Index economies by World Bank region

Asia	Latin America and the Caribbean	Africa and the Middle East	Europe and Central Asia	North America
Australia	Argentina	Algeria	France	Canada
Brunei	Brazil	Egypt	Germany	U.S.
China	Chile	Israel	Greece	
India	Colombia	Jordan	Hungary	
Indonesia	Costa Rica	Kenya	Ireland	
Japan	Dominican Republic	Kuwait	Italy	
Malaysia	Ecuador	Morocco	Netherlands	
New Zealand	Mexico	Nigeria	Poland	
Pakistan	Peru	Saudi Arabia	Russia	
Philippines	Venezuela	South Africa	Spain	
Singapore		UAE	Sweden	
South Korea			Switzerland	
Taiwan			Turkey	
Thailand			UK	
Vietnam			Ukraine	

Source: World Bank (2019)

In addition to geographic diversity, the Index includes economies from a broad spectrum of income groups

as defined by the World Bank which is illustrated in Table 2 below.

Table 2: Eighth edition Index economies by World Bank income group

Lower-middle-income economies	Upper-middle-income economies	High-income economies	High-income OECD Members
Egypt	Algeria	Brunei	Australia
India	Argentina	Kuwait	Canada
Indonesia	Brazil	Saudi Arabia	Chile
Kenya	China	Singapore	France
Morocco	Colombia	Taiwan	Germany
Nigeria	Costa Rica	UAE	Greece
Pakistan	Dominican Republic		Hungary
Philippines	Ecuador		Ireland
Ukraine	Jordan		Israel
Vietnam	Malaysia		Italy
	Mexico		Japan
	Peru		Netherlands
	Russia		New Zealand
	South Africa		Poland
	Thailand		South Korea
	Turkey		Spain
	Venezuela		Sweden
			Switzerland
			UK
			U.S.

Source: World Bank (2019)

What's new in the eighth edition?

New categories and indicators

A significant new feature of the eighth edition is the addition of five new indicators, bringing the total number of indicators to 50. Over the past eight editions, the number of indicators included in the Index

doubled from 25 in the inaugural edition in 2012 to today's 50. Consequently, the maximum possible score on the Index has increased from 25 to 50.

Table 3 provides a summary of the five new indicators and the Index categories to which they have been added.

Table 3: New indicators added in 2020

Index category	New indicator
Category 1: Patents, Related Rights, and Limitations	1 new indicator: <ul style="list-style-type: none"> Plant variety protection, term of protection
Category 8: Systemic Efficiency	1 new indicator: <ul style="list-style-type: none"> IP-intensive industries, national economic impact analysis
Category 9: Membership and Ratification of International Treaties	3 new indicators, but 5 new treaties: <ul style="list-style-type: none"> Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks (joins current indicator) Patent Cooperation Treaty (joins current indicator) Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991 Membership of the Convention on Cybercrime, 2001 The Hague Agreement Concerning the International Registration of Industrial Designs (Hague Agreement and Geneva Act)

The methodology section at the back of this report fully defines and describes the new indicators. Below is a summary overview of each new indicator and what it seeks to measure.

The new indicator added to Category 1: Patents, Related Rights, and Limitations measures the extent to which plant varieties are protected and the maximum term of protection offered, with a baseline term of protection of at least 20 years (25 years for trees and vines) in accordance with the International Convention for the Protection of New Varieties of Plants, act of 1991.

The new indicator added to Category 8: Systemic Efficiency measures the extent to which the relevant authorities in a given economy seek to map and measure the economic impact and importance of IP-intensive industries to their national economies. Whatever the stage of development, IP-intensive

industries are of increasing importance to all economies around the world. The first step in recognizing their importance is to actively seek to identify, categorize, and measure the size and economic impact of these industries domestically.

Finally, three new indicators covering five new treaties have been added to Category 9: Membership and Ratification of International Treaties. The addition of these treaties doubles the number of treaties included in the Index. This ensures that the Index measures participation in both treaties with substantive IP provisions as well as treaties that seek to make the international registration and prosecution of IP rights applications easier for inventors, such as the Patent Cooperation Treaty and the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks.

4. THE GLOBAL IP ENVIRONMENT IN 2019

How the United States-China trade negotiations continue to dominate the international policy environment

In some respects, the major macro trends affecting the global IP environment in 2019 are the same as in 2018. Most obviously, the trade dispute and negotiations between the **United States** and **China** remained at the heart of international politics and policymaking. Throughout the year, China made substantive improvements to its IP system proactively as the two countries worked on a settlement of the trade dispute. This culminated in the January 15, 2020 signing of Phase One of the Economic and Trade Agreement between the United States of America and the People's Republic of China (Phase One agreement²) that will strengthen the national IP environment in China and better define and protect rights-holders' legal interests in some key areas.

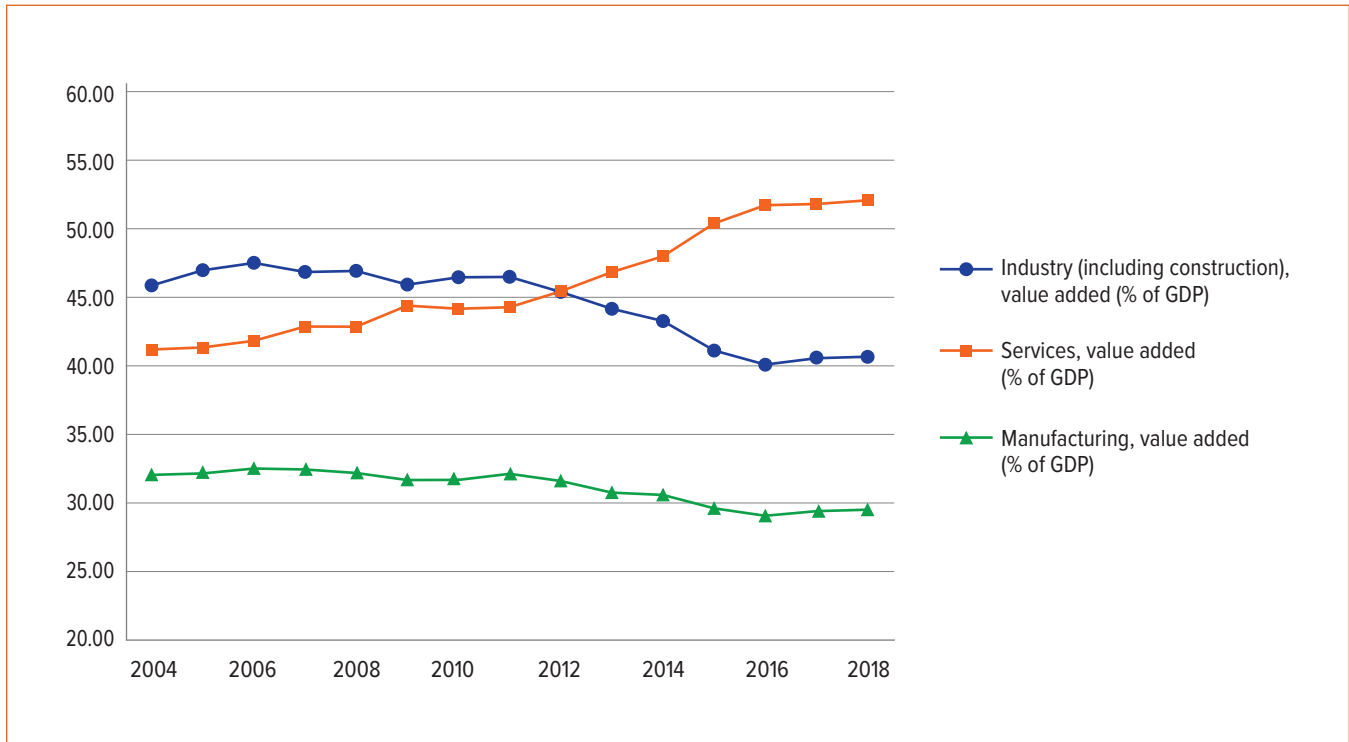
Together, the Chinese and American economies constitute close to 40% of total global economic output and are the world's biggest trading partners. These two nations recognized that IP rights form the foundation of the innovative and creative ecosystem to the benefit of both countries. There is a need around the world to modernize IP protection and enforcement, yet this Phase One agreement is the only agreement reached since the last edition of the Index³ with substantive IP provisions, resulting in an increase in China's score on indicator 50.

The first two chapters of the Phase One agreement include much needed improvements to the protection and enforcement of IP rights in China. The first chapter exclusively covers IP protection and includes reforms to better protect against trade secrets theft, pharmaceutical-related IP and patent infringement, and bad faith trademarks. The chapter also includes a

series of provisions to strengthen judicial enforcement of IP and commitments to combat counterfeiting and piracy. The second chapter addresses some of the United States' concerns on forced technology transfer practices in China.

The Chinese economy is increasingly becoming more technology and innovation dependent. The Chinese government has long recognized the need to shift domestic economic activity away from low-added-value industrial production into higher-value knowledge creation and high-tech, advanced manufacturing and R&D. Successive Chinese administrations have emphasized the need to invest in R&D capacity, technology development, human capital, and incentivizing innovation. As Figure 1 illustrates, when looking at value added as a percentage of GDP in China, both industrial production and manufacturing have decreased over the past 15 years while the services sector has increased by 25%, growing from 41.18% of GDP in 2004 to 52.16% in 2018.

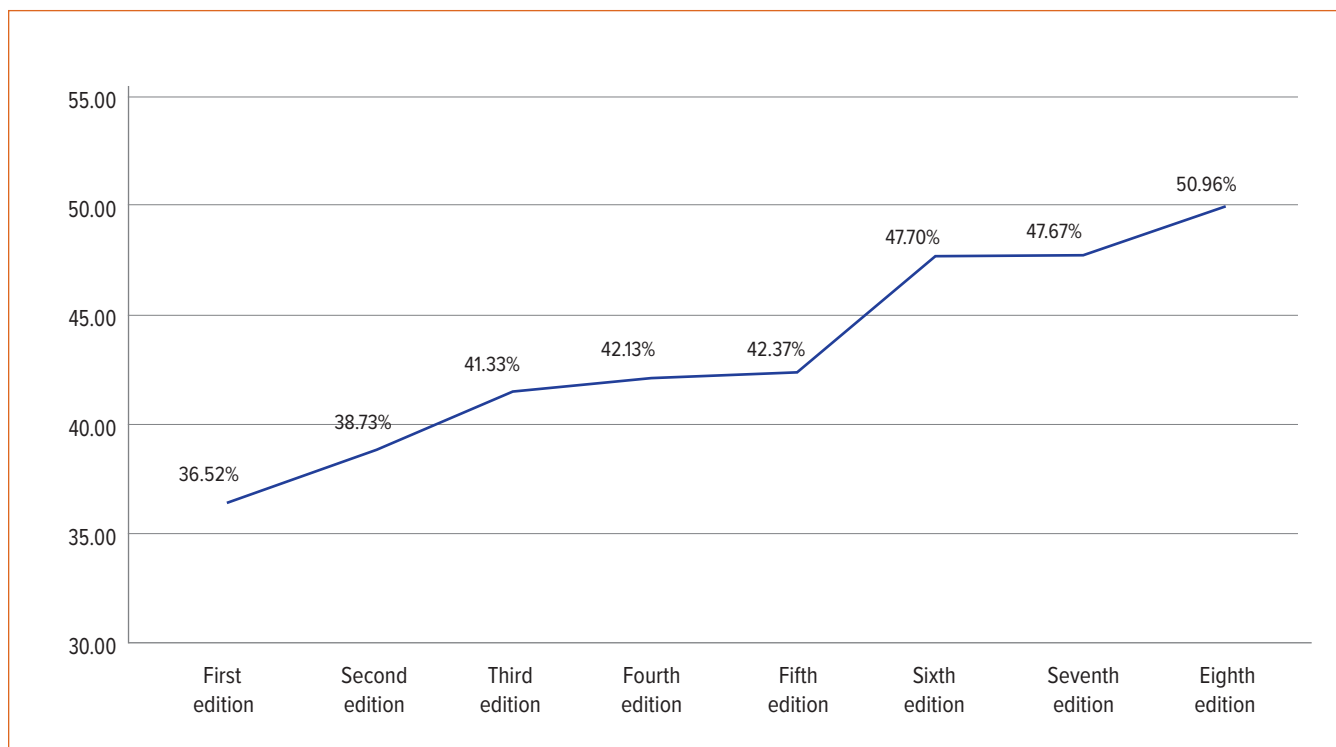
Figure 1: Industry (including construction), value added (% of GDP); services, value added (% of GDP); manufacturing, value added (% of GDP), China, 2004-18⁴



Similarly, the focus on R&D and innovation in the Chinese economy is growing. In 2018 the number of Patent Cooperation Treaty (PCT) patent applications from China almost matched the number of applications in the United States, at 53,345; this has more than doubled since 2014, when the number of Chinese applications was less than 25,000.⁵ Over the past decade both the public and private sectors have been dedicating an ever-growing share of economic resources toward R&D and high-tech manufacturing. As a percentage of GDP, China invested 2.13% in R&D in 2017, which is virtually the same as the average spent in the European Union and more than double its rate of expenditure in 2000.⁶ China is also home to the largest number of science and engineering graduates in the world.⁷

Over the past decade, Chinese policymakers have also recognized the necessity of IP reform to enable this restructuring of the economy. As Figure 2 shows below, over the past eight years China's score on the IP Index has increased. However, despite this receptivity to more effective IP protection, China has traditionally underperformed in many indicators, particularly those at the center of the trade dispute, such as enforcement, trade secrets, market access.

Figure 2: IP Index, China overall score, first through eighth edition, percentage available score



Chapter Two of the Phase One Agreement addresses technology transfer. Rights-holders have for many years faced a mix of regulatory barriers, procedural barriers, and inflexible terms to licensing in China that impede technology flows and R&D cooperation. Specifically, China has imposed restrictions on the legal and practical rights of foreign IP rights-holders to freely negotiate market-based contractual terms in licensing and other technology-related contracts concerning the transfer of technology to China. The Technology Import/Export Regulations (TIER) have included discriminatory conditions for foreign licensors, including indemnification of Chinese licensees against third-party infringement and transfer of ownership of future improvements on a licensed technology to the licensee (whereas a Chinese IP owner is able to negotiate different terms). This has restricted the ability of foreign companies to negotiate licensing and technology contracts on market terms

and to fully commercialize their technology in China. Similarly, under the Joint Venture regime, licenses and technology transfer contracts cannot last more than 10 years, after which the licensee has retained the right to use the transferred technology even though it might still be under a term of exclusivity. The Working Measures for Outbound Transfer of Intellectual Property Rights adopted in 2018 tightened the scrutiny on outbound transfer of technology and IP. In the context of standards setting, there has also been a trend toward greater administrative involvement in determining patent licensing terms and the ability to secure relief from infringement. The National Security Law, Cybersecurity Law, Security Assessments for Network Products and Services, and several standards (e.g., secure and controllable standard) all have product reviews that require IP disclosure. Both the United States and the European Union (EU) have filed complaints with the World Trade Organization (WTO)

against China over its technology licensing practices, and this has been a central point of contention and negotiation in the current trade negotiation between the United States and China. Given this backdrop, China's technology transfer and licensing environment experienced positive changes in 2019. The Foreign Investment Law, the TIER, and the Regulations for the Implementation of the Law of the People's Republic of China on Chinese-Foreign Equity Joint Ventures were changed, with many of the most onerous provisions described above now removed. Specifically, Article 22 of the Foreign Investment Law states explicitly that the IP rights of foreign entities and investors should be protected and there should be no coercion or forced technology transfer. Similarly, the revised TIER regulations have removed and/or amended provisions relating to indemnification and ownership and usage of improvements made to a licensed technology. These changes hold the promise of changing the way licenses can be drafted and executed between foreign and Chinese entities. Although it remains to be seen if and the extent to which these changes are implemented in practice, these are noteworthy developments to the innovative ecosystem in China.

Pressure from the trade dispute with the United States as well as their own domestic interests has led China's overall score to increase from 47.67% of the total available score in the seventh edition of the Index to 50.96% in this year's edition. This improvement was the result of the substantive changes to licensing and technology transfer laws and regulations, laws relating to trademarks and trade secrets, and the signing of a substantive IP agreement.

In contrast to China's positive steps, a more surprising development in 2019 was the backtracking and active weakening of the IP environment by several traditional high performers on the Index. The following sub-sections discusses this with reference to developments in the European Union and in international trade.

Abandoning ship? Is the European Union turning its back on IP-intensive industries?

Over the last decade, the European Patent Office (EPO) and the European Union Intellectual Property Office (EUIPO) have dedicated an increasing amount of time and resources to map and measure the economic impact that IP-intensive industries have on Europe's economy. In 2019 the two offices jointly produced and published the third edition of a pan-European assessment (including for non-EU EFTA economies) of the importance of IP-intensive industries to Europe's GDP and employment. The report, *IPR-Intensive Industries and Economic Performance in the European Union*, found that, in aggregate, across the EU, IP-intensive industries were responsible for almost 45% of economic output and generated almost 30% of all jobs (29.3%).⁸ Furthermore, looking at industries and sectors that provide services and goods to IP-intensive industries, the total number of jobs supported directly and indirectly jumps to almost 40% at 83.8 million jobs. Although there is some variation across the EU regarding the importance of IP-intensive industries to economic activity and employment, IP-intensive industries are the proverbial engine of the European economy. In a top performer, **Ireland**, fully 65% of GDP came from IP-intensive industries. Yet, curiously, over the past year European policymakers have taken concrete steps to weaken the protections and incentives that have built these IP-intensive industries.

No longer wanted? The research-based biopharmaceutical industry in Europe

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, through changes to "Supplementary Protection Certificates" (SPCs). An SPC, and patent term restoration in general, is a mechanism whereby biopharmaceutical

innovators are compensated for delays during the regulatory review and market authorization for their products which can take years to complete. During this review period rights-holders cannot commercialize their products and so cannot benefit from the patent protection they have been lawfully granted. SPCs and patent term restoration seek to compensate rights-holders with a portion of this lost exclusivity. One option put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption (SPC exemption). The overriding purpose of the exemption was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for European innovators.⁹ This proposal was broadly based on an academic study which argued that an SPC exemption would result in substantial economic gains in the EU.¹⁰ The underlying logic of the commission's proposal was highly dubious, and several studies subsequently questioned the claims of economic gains.¹¹ Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry.¹ Despite this criticism, the European Commission, European Parliament, and the European Council all approved of the policy; Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States.

Although the full ramifications for Europe's research-based biopharmaceutical industry will not become clear for many years, the decision to move ahead with the SPC manufacturing and export exemption is highly damaging to one of Europe's most competitive IP-intensive industries. European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only

does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of patients, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal and subsequent law. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers' products. Yet it is not at all clear what this market is or where the demand for generic and follow-on medicines produced in Europe would come from. The markets that per definition would be targeted by such manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European manufacturers as opposed to their own domestic ones? In many cases, these markets already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences for local producers in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. For those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European follow-on manufacturers to gain a competitive advantage, it is much more likely that over time other

economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU's SPC exemption is other economies asking themselves, "If the European Union is weakening IP standards to benefit its domestic industries, why shouldn't we do the same?" Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, **Denmark, Sweden, and the UK**, all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish Government's perceptive criticism of the policy:

While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal.** [Emphasis added]¹³

As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on Indicator 7 (Patent term restoration for pharmaceutical products) has been reduced for all EU Member States.

In addition to its negative actions on biopharmaceutical IP incentives, the European Commission's long history of embracing a largely pro-IP rights position in trade negotiations has come into question in 2019.

Are international trade agreements no longer an avenue for raising international IP standards?

As noted in previous editions of the Index, historically, trade agreements have been fundamental in setting international standards for the protection and enforcement of IP rights. When it entered into force in 1994, the North American Free Trade Agreement (NAFTA) was widely considered to be the first international trade agreement that included specific obligations to protect IP rights. NAFTA included and set the standard in most major areas of IP protection. Many multilateral, plurilateral, and bilateral trade agreements that followed in the quarter century—including TRIPS—built on NAFTA's standards and helped raise the international floor for IP protection. In this respect, both the **EU** and **United States** have been leading advocates for stronger IP standards, with strength being measured in terms of the scope, duration, ease of access to, and reliability of the right. In virtually all post-TRIPS free trade agreements (FTAs) concluded by either of the two governments, IP rights and IP standards were central. The benefits have been felt across the world, with inventors and creators from the Andes to North Africa to the Middle East to Asia seeing the positive impact a stronger IP environment has on economic activity, trade, development, and job creation. Unfortunately, several negative developments in 2019 could spell an end to this positive cycle.

First was the EU-Mercosur Association Agreement. In June 2019 the European Commission and the South American trade bloc Mercosur announced that they had reached a trade agreement as part of a wider Association Agreement. Then President of the European Commission Jean-Claude Juncker called the agreement "a historical moment" and "the largest

trade agreement the EU has ever concluded.”¹⁴ The agreement is now subject to final legal revisions and approval by all parties. Although technically the EU-Mercosur Agreement is a post-TRIPS FTA that does contain a separate IP chapter, its IP provisions are notably weaker compared with current international standards and other post-TRIPS agreements concluded by the EU.¹⁵ The treaty does not include any substantive provisions regarding patent rights. Copyright provisions are relatively limited. Similarly, border measures are notably weak: Parties are largely exempt from taking effective border measures and the treaty does not require customs officials to be provided with *ex officio* authority to act against suspected goods. Moreover, in-transit goods are explicitly exempt from any action under Article X.58(2). Although the agreement includes clear language on civil and administrative enforcement (including the need for an established calculation for damages), there are no corresponding provisions relating to criminal enforcement. Trade secret provisions are relatively strong and do include clear language and definitions of trade secrets and infringement. But looking at IP-intensive industries more specifically, there are no provisions relating to the biopharmaceutical sector. This stands out compared with previous EU post-TRIPS FTAs with Latin American economies, such as the EU-Andean Community FTA that included a requirement for a five-year regulatory data protection (RDP) term. Overall, this agreement is notably weaker than preceding EU FTAs, including recent agreements such as the EU-Japan Economic Partnership Agreement, the aforementioned EU-ANDEAN Community FTA, and the Canada-European Union Comprehensive Economic and Trade Agreement.

The EU-Mercosur agreement is the latest in a string of agreements that lack substantive provisions on the protection of IP. Among bilateral treaties concluded in 2019, the Indonesia Australia Comprehensive Economic Partnership Agreement (CEPA) is an example. Like the EU-Mercosur agreement, the CEPA is technically a post-TRIPS FTA, but it does not include **any** substantive

provisions relating to the protection of IP. The CEPA does not have a separate IP chapter and overall is a substantively weaker agreement than many existing bilateral or plurilateral efforts.

As has been noted in past editions of the Index, the terms of the revised Trans-Pacific Partnership (TPP; the Comprehensive and Progressive Agreement for Trans-Pacific Partnership [CPTPP]), foreshadowed this negative development. In the CPTPP, numerous critical provisions of the original TPP were suspended, including the provisions for patentable subject matter, biopharmaceutical-specific IP rights such as regulatory data protection, copyright protection and enforcement, and protections relating to satellite and cable signals. As a result, the CPTPP does not conform to the modern standards of other post-TRIPS international trade agreements. Still, the text of the CPTPP does retain some important aspects of the TPP’s IP chapter, including the following key provisions and requirements on contracting parties:

- I Commitments to ratify IP-related international treaties (Article 18.7, International Agreements)
- II Mechanisms for (i) notification to a patentee and resolution of patent disputes, or (ii) preclusion of marketing approval in conjunction with market authorization review process (Article 18.53, Measures Relating to the Marketing of Certain Pharmaceutical Products)
- III Design rights (Article 18.55, Protection of Industrial Design)
- IV Copyright (Article 18.64, Application of Article 18 of the Berne Convention and Article 14.6 of the TRIPS agreement; and Article 18.65, Limitations and Exceptions)
- V IP rights enforcement section (Articles 18.71-18.78, including Article 18.76, Special Requirements Related to Border Measures,

which requires providing national customs officials with *ex officio* powers to seize and detain suspected goods, including goods in transit)

VI Trade secrets (Article 18.78, Trade Secrets)

VII Government use of licensed software (Article 18.80, Government Use of Software)

In 2019, several economies ratified the CPTPP and introduced new implementing legislation, including for IP rights. These economies include **Australia**, **Canada**, and **New Zealand**, whose legislatures have all passed new laws to conform, implement, and ratify the CPTPP. However, it is unclear whether the laws implementing the CPTPP actually include and comply with the above IP-related provisions and requirements, most notably regarding anticounterfeiting border measures. The CPTPP provides a clear and unambiguous requirement that border officials in all contracting parties have the right to take *ex officio* action against suspected infringing goods, including against goods in transit destined for export and not intended for the domestic market. Article 18.76(5) of the treaty states, “Each Party shall provide that its competent authorities may initiate border measures *ex officio* with respect to goods under customs control that are: (a) imported; (b) destined for export; or (c) in transit.” Yet Australia’s, Canada’s, and New Zealand’s CPTPP implementing laws do not provide such a clear requirement. In Australia, the Customs Amendment (Comprehensive and Progressive Agreement for Trans-Pacific Partnership Implementation) Bill 2018 does not include any provisions relating to *ex officio* powers or goods in transit. At the time of research, neither the Australia Border Force (ABF) nor Australia’s IP office, IP Australia, had provided any public indication that the Australian customs regime had changed or would be changing. In the current iteration of the fact sheet “Protecting Intellectual Property” available on its website, the ABF states that it “can only seize goods suspected of infringing intellectual property rights if there is a

valid Notice [of Objection] in place.” Consequently, it is unclear how Australia will abide by its commitments under the CPTPP. There is a similar level of uncertainty in both Canada and New Zealand. As has been noted in previous editions of the Index, Canadian border officials have traditionally not had *ex officio* powers to search and seize goods suspected of infringing IP rights, and customs officials require a court order to seize and detain suspected goods under both the Copyright Act and the Trade-Marks Act. In 2014, new legislation in 2014 (Bill C-8) introduced more robust border measures, including new civil and criminal options as well as expanded powers for customs officials by enabling the detention of goods suspected of copyright or trademark infringement. However, while customs officers were given a right of detention, at the time of enactment it was not clear whether in practice this right extended to goods for which rights-holders had not made a “request for assistance.” During the June 2015 10th WTO review of the trade policies and practices of Canada the Canadian Government clarified this point. In its official, published written responses to questions from other WTO Member States, the Canadian government stated that the newly enacted and in force legislation did in fact provide an *ex officio* authority to customs officers. However, these laws did not extend to counterfeit goods in transit, which, provided they were not destined for the Canadian market, would continue to pass through Canadian customs largely unimpeded. In late 2018 Canada introduced and passed CPTPP implementing legislation amending a range of relevant statutes, including the Customs Act and Trade-marks Act. However, the new law, The Act to Implement the Comprehensive and Progressive Agreement for Trans-Pacific Partnership between Canada, Australia, Brunei, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam, does not include any provisions relating to *ex officio* powers or goods in transit. Consequently, just as with Australia it is also unclear how Canada will abide by its commitments under the CPTPP to provide border officials with the power to act against suspected goods in transit or destined for export. The situation is similar

in New Zealand. The New Zealand Customs Service has traditionally had in place a notification system whereby rights-holders can record their registered trademarks and copyrighted goods. This recording system formed the basis for customs authorities to act against suspected infringing goods. Amendments to the Trade Marks Act in 2011 introduced a concept of “Enforcement Officers,” which includes customs authorities. Under these amendments, enforcement officers were granted powers of search, examination, and seizure. As noted in previous editions of the Index, it was not clear whether these powers amounted to an *ex officio* authority for customs officials to seize goods suspected of infringing IP rights and if they applied also to goods in transit. As part of its CPTPP ratification process in late 2018, the New Zealand Parliament passed the Trans-Pacific Partnership Agreement (CPTPP) Amendment Act 2018. Sections 9-10 of the amending legislation (the Principal Act) do provide a clear *ex officio* authority for New Zealand customs officers to detain and seize suspected infringing goods. Regarding copyright-infringing goods, the act states, “Any item in the control of the Customs may be detained in the custody of the chief executive or a Customs officer if a Customs officer has reasonable cause to suspect that the item is a pirated copy.” The act provides for similar language for suspected trademark-infringing goods. While these positive steps have resulted in a score increase on relevant indicators on the Index for New Zealand this year, it is still not clear whether these powers apply also to goods that are in transit and not intended for the domestic New Zealand market.

Finally, the final United States-Mexico-Canada Agreement (USMCA) is a significant missed opportunity to elevate IP standards through an FTA with the two largest U.S. trading partners. The seventh edition of the Index highlighted the potential of Chapter 20 of USMCA to set a new global IP standard. Indeed, the USMCA as originally signed by the parties included many critical 21st century IP provisions, such as

- stronger pharmaceutical-related IP protection, including RDP terms of five years for new chemical entities and 10 years for biologics;
- more effective trade secret protection, including criminal sanctions;
- *ex officio* border enforcement against all suspected counterfeit goods, including goods in transit; and
- strengthened copyright provisions, including a longer term of protection, digital rights management/technological protection measures, and exceptions and limitations limited to the long-standing, internationally recognized three-step test.

The Agreement, signed in 2018, was a significant improvement over NAFTA, TRIPS, and the original TPP agreement. However, as was noted last year, the agreement was not perfect and fell short of the standard measured by the IP Index, lacking for instance many provisions relating to a 21st century copyright regime. Specifically, the agreement was unclear about the required type of notification and safe harbor regime. On the one hand, Article 20.J.11 clearly stated that a notice-and-takedown regime should be in place that includes a clear requirement that to be exempt from any secondary liability, internet service providers (ISPs) should “expeditiously remove or disable access to material residing on their networks or systems upon obtaining actual knowledge of the copyright infringement or becoming aware of facts or circumstances from which the infringement is apparent, such as through receiving a notice of alleged infringement from the right holder or a person authorized to act on its behalf.” On the other hand, the annex to Section J provided a substantial carve-out for Canada’s existing notice-and-notice regime. Similarly, the agreement did not include a requirement for one of the most forward-looking and effective means of limiting access to infringing

content: injunctive-style relief. First pioneered in Europe, injunctive-style relief allows rights-holders to get immediate and effective relief against online infringement. As has been detailed in the Index over the past few years, a growing number of EU Member States, Australia, Singapore, Russia, and now India have introduced some system of injunctive-style relief. Illegal, often foreign-based, websites such as *The Pirate Bay* have been effectively disabled and piracy rates have decreased measurably in the economies that have introduced these measures. The USMCA did not contain any language or thinking on such a mechanism.

Still, despite gaps, overall the IP standards in the original USMCA would have set a new, higher benchmark that would lead to more innovation, more job creation, and more economic growth across North America. Unfortunately, the original agreement signed in November 2018 has since been substantively revised. In December 2019, Speaker of the House Nancy Pelosi announced that a revised USMCA had been agreed upon with the White House, Canada, and Mexico. The text of the final agreement revealed that important parts of the original USMCA had either been completely removed or fundamentally altered. This included critical provisions relating to biopharmaceutical IP protection and incentives. Specifically, the revised agreement is said to have

- removed provisions relating to a 10-year term of RDP for biologic medicines;
- weakened patentability standards by not allowing second and additional use claims;
- weakened administrative mechanisms that link the registration and market approval of a follow-on product to the exclusivity status of a reference product; and
- weakened provisions relating to term restoration for biopharmaceutical products.¹⁶

These amendments fundamentally reshaped the agreement by removing many of the provisions which would have strengthened life sciences IP protection across North America. The weakening of the final agreement further contributes to an alarming global trend of IP standards being abandoned or undermined through international trade agreements.

While developments in 2019 raise questions about whether international trade agreements remain an avenue for raising global IP standards, it is also notable how many of the Index's economies have in the past few years chosen to sign up to high IP standards through their participation in international treaties and patent prosecution highway (PPH) agreements. For emerging markets, this is increasingly becoming an important marker and a signal of whether a given economy is willing to engage and abide by international IP standards.

Paths to prosperity—international IP treaties and patent prosecution highways

As mentioned, this year's edition of the Index added five new international IP treaties, bringing the total number of international treaties included in Category 9: Membership and Ratification of International Treaties to 10. The new treaties added are as follows:

- Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks
- Patent Cooperation Treaty
- International Convention for the Protection of New Varieties of Plants, act of 1991
- Convention on Cybercrime, 2001
- Hague Agreement Concerning the International Registration of Industrial Designs (Hague Agreement and Geneva Act)

The addition of these new treaties and the doubling of the number of treaties measured ensure that the Index is an excellent gauge of (1) the extent to which an economy seeks to adhere to international IP standards as captured in the substantive requirements of many of these treaties, and (2) the extent to which economies also seek to harmonize and simplify the international registration of IP rights such as patents, trademarks, and design rights. Becoming a contracting party to an international IP treaty is a strong signal of the extent to which an economy chooses to participate in the international IP system. For example, looking at one of the new treaties, the PCT, virtually all 53 economies included in the Index are contracting parties. Only two economies—**Pakistan** and **Venezuela**—are not contracting parties and have not signed the agreement. A third, **Argentina**, signed the PCT in 1970 but has not ratified the agreement, which now has 153 contracting parties. As such, Argentina remains the only major economy in the world that chooses not to be a full contracting party to the PCT. Looking at the overall results for the 53 economies included in the Index, virtually all are contracting parties to one or more of the treaties included in the Index. The average aggregated score for Category 9: Membership and Ratification of International Treaties is 59.37%. Only one economy, Pakistan, has not signed any of the treaties included in the Index and has a score of 0.

It is a similar story for efforts to harmonize and increase the speed and efficiency of international patent applications through patent prosecution highways. PPH initiatives and increased cooperation between IP offices are one of the most tangible ways in which the administration and functioning of the international IP system can be improved and harmonized to help inventors and rights-holders. Since the sixth edition, the Index has sought to measure the extent to which an economy actively participates in international efforts to harmonize and accelerate patent prosecution in a dedicated indicator. This indicator (Indicator 8, Membership of the Patent Prosecution Highway) measures whether

an economy's relevant IP or patent office has joined international efforts toward streamlining and improving patent prosecution by membership in a PPH. Given the three main tracks of international PPHs—PPH, Global Patent Prosecution Highway, and IP5 Patent Prosecution Highway—economies are scored differently depending on their level of participation and membership in the different tracks. Economies that are members of either (or both) the Global Patent Prosecution Highway or IP5 Patent Prosecution Highway score higher than economies that are only members of an individual PPH through a bilateral or multilateral agreement. As with treaties, most Index economies are members of a functioning PPH. Only 10 of the 53 economies included in the Index are not members of any PPH initiative. Unfortunately, the majority—seven out of 10—of these economies are from the Middle East and Africa region. These are **Algeria, Jordan, Kenya, Kuwait, Nigeria, Pakistan, South Africa, UAE, Ukraine, and Venezuela**. Income and level of economic development do not seem to be driving causes of this lack of participation, as neither Kuwait nor the UAE—both high-income economies—are parties to a PPH. This is slightly surprising since both economies are founding members of the Gulf Cooperation Council (GCC). Since the late 1980s and early 1990s, the GCC has sought to harmonize and unify IP laws and the registration of IP rights in the region. Since 1992 the GCC Patent Office has issued unified patents for the region. The GCC itself and its members have made engaged in efforts to also harmonize trademark law. In a positive move the newly formed Saudi Authority for Intellectual Property (SAIP) signed two PPH agreements in 2019. The first agreement was signed in April 2019 with the Korean Intellectual Property Office. The second agreement was signed with the U.S. Patent and Trademark Office (USPTO) in late 2019 on the sidelines of the 59th World Intellectual Property Organization (WIPO) General Assembly held in Geneva. This is a significant step to support innovators and inventors in all affected economies. Until these announcements **Saudi Arabia** did not have a functioning PPH with any major IP office.

More broadly, several major emerging economies included in the Index have made a concerted effort to sign up to PPH initiatives over the past few years. These include, for example, **Argentina**, **Brazil**, **India**, and **Peru**. In 2017 Argentina initiated PPHs with the USPTO and the Japan Patent Office (JPO). Similarly, since 2016-17 the Brazilian Patent Office, INPI, has had in place PPHs with both the USPTO and the JPO. While initially both programs were limited to certain arts—the PPH with the USPTO is open only to petrochemicals and related fields and the program with the JPO targeted the ICT sector—this has been expanded somewhat in 2019 with the JPO PPH now also covering certain fields of chemistry. Brazil is also an active participant in the Latin American PROSUR initiative. Similarly, in late 2018 Indian and Japanese authorities agreed to begin a PPH program in the first quarter of 2019. Until this announcement India did not have a functioning PPH with any major IP office. Finally, in January 2019 Peru’s IP office, National Institute for the Defence of Competition and the Protection of

Intellectual Property (INDECOPi), joined the Global Patent Prosecution Highway (GPPH) Pilot Program that provides the opportunity to request accelerated examination and secure an early patent grant in its 24 participating states.

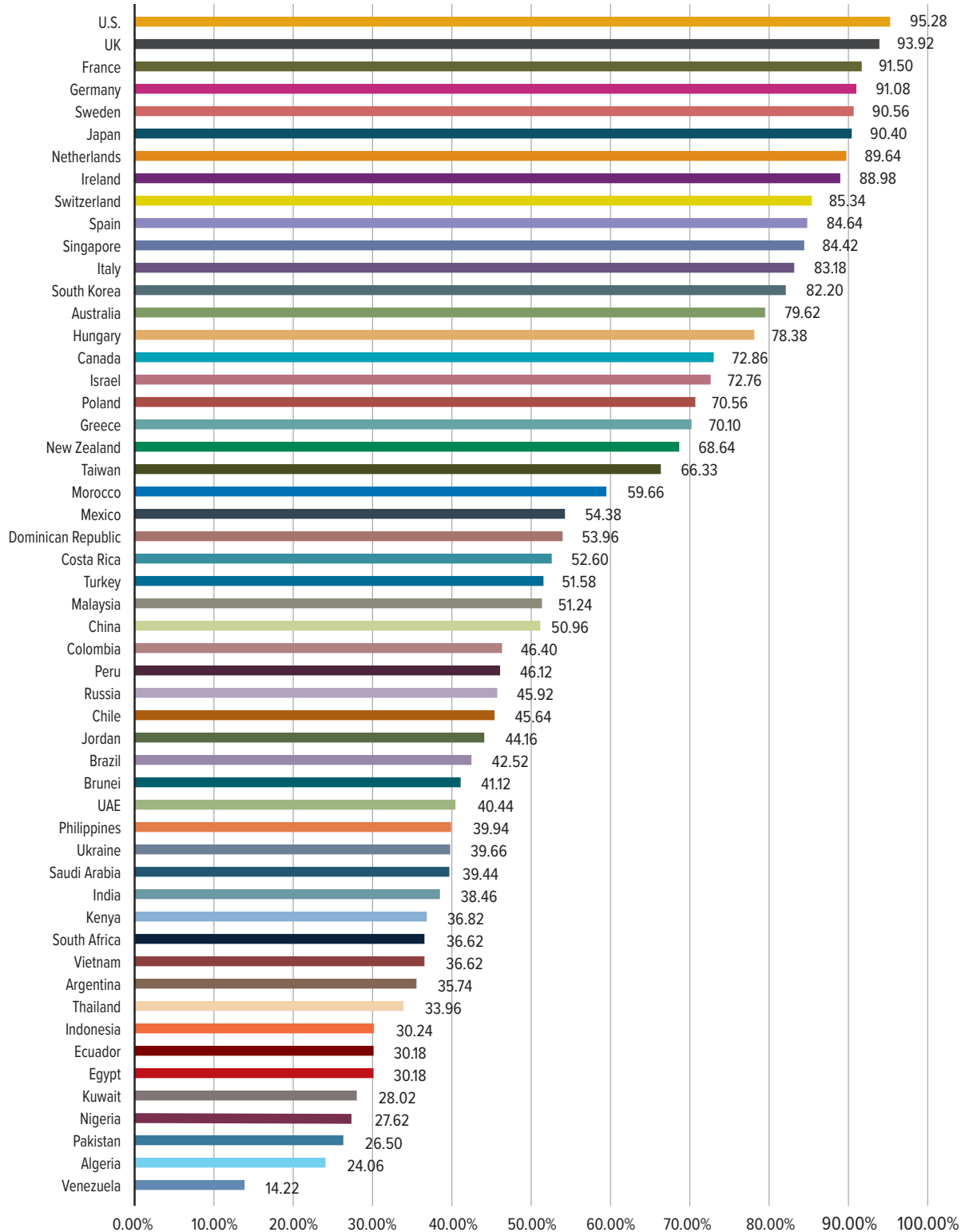
It is notable how many of the Index’s largest emerging markets have chosen to sign up to high IP standards through international treaties and PPH agreements in the past few years. For instance, in addition to the PPH initiative, **India** has also over the past two years become a contracting party to the WIPO Internet Treaties. And while, as noted, **Pakistan** remains the sole economy included in the Index that is not a member of any international treaty, the government of Pakistan has announced that it will seek to join both the Madrid Protocol and the Patent Cooperation Treaty as part of a long-term reform process of its national IP environment. For all economies, joining international treaties and PPHs is a positive first step in reforming their national IP environment.

5. OVERALL RESULTS AND CATEGORY-BY-CATEGORY SCORES

Up or down? How have economies fared in this edition of the Index? And what do the results of the 2020 Index tell us about the state of the global IP environment? Figure 3 shows the overall results for the eighth edition of the Index.*

* This year all scores (overall and category by category) have been standardized to a percentage of 100. Given that the Index is a constantly evolving social scientific tool with new indicators added every edition, standardizing scores to a percentage allows users to more easily understand the Index scores and potential changes over time. Please note that the use of a standardized percentage score does not impact the scores or performance of any given economy on any given category of the Index.

Figure 3: U.S. Chamber International IP Index 2020, overall scores, percentage available score



As Figure 3 shows, European economies dominate the top of the Index, taking eight of the top 10 positions. However, the gap between the **United States** and the **EU** economies has increased, and **Japan** has moved firmly ahead and is now ranked sixth, ahead of the **Netherlands, Ireland, Switzerland, and Spain**.

What has caused this?

Most obviously, the United States' has continued to deliver a strong performance overall including in the five new indicators added to this edition. As discussed below, while the patenting environment continues to be an area of deep concern to rights-holders, the U.S. national IP environment continues to be the most competitive in the world. Of note, the **UK** and other EU Member States continue to fall behind relative to the United States. Two years ago, in the sixth edition of the Index, the UK and United States were in a virtual statistical tie, with the UK achieving an overall score of 94.93% and the United States a score of 94.95%. Sweden and France were just behind at 92.58% and 91.85%, respectively. While the UK remains a high performer across the Index—and is still the clear number two and ahead of other EU Member States

and Japan—the UK has seen its score drop due to the EU-wide introduction of a manufacturing and export SPC exemption for biopharmaceutical products as with all EU Member States this year. Given that the UK is in the process of leaving the EU and will no longer be bound by EU laws, the distinct possibility remains that the SPC exemption will not be applied in the UK. This would be a positive move and result in a score increase. It is also worth noting Japan's positive movement over the past few years of the Index. In 2018 Japan's overall score was 86.45% and it ranked eighth out of 50 economies. This year its overall score has increased to 90.40% and Japan is now ranked sixth out of 53 economies. This follows consecutive years of positive reform efforts—including copyright reform in 2019—and a strong performance on the new indicators added over the past two editions.

Outside the top 10, what stands out on this year's edition of the Index is the overall positive performance of the vast majority of economies benchmarked. As Table 4 shows, of the 50 economies included in the seventh edition of the Index, 43 saw positive movement in 2020.

Table 4: Change in overall score, seventh edition versus eighth edition

	Eighth edition	Seventh edition	Change in overall score
United States	95.28%	94.80%	0.48%
UK	93.92%	93.82%	0.10%
France	91.50%	91.10%	0.40%
Germany	91.08%	90.09%	0.99%
Sweden	90.56%	91.18%	-0.62%
Japan	90.40%	87.73%	2.67%
Netherlands	89.64%	89.04%	0.60%
Ireland	88.98%	89.42%	-0.44%
Switzerland	85.34%	82.78%	2.56%
Spain	84.64%	82.38%	2.26%
Singapore	84.42%	82.49%	1.93%
Italy	83.18%	81.29%	1.89%
South Korea	82.20%	80.13%	2.07%
Australia	79.62%	80.13%	-0.51%
Hungary	78.38%	75.96%	2.42%
Canada	72.86%	66.40%	6.46%
Israel	72.76%	66.42%	6.34%
Poland	70.56%	66.53%	4.03%
Greece	70.10%	NA	
New Zealand	68.64%	68.07%	0.57%
Taiwan	66.33%	62.33%	4.00%
Morocco	59.66%	54.30%	5.36%
Mexico	54.38%	53.20%	1.18%
Dominican Republic	53.96%	NA	
Costa Rica	52.60%	49.73%	2.87%
Turkey	51.58%	46.87%	4.71%
Malaysia	51.24%	49.70%	1.54%
China	50.96%	47.67%	3.29%
Colombia	46.40%	45.99%	0.41%
Peru	46.12%	40.13%	5.99%
Russia	45.92%	43.24%	2.68%

Table 4: Change in overall score, seventh edition versus eighth edition (*continued*)

	Eighth edition	Seventh edition	Change in overall score
Chile	45.64%	44.38%	1.26%
Jordan	44.16%	42.40%	1.76%
Brazil	42.52%	40.56%	1.96%
Brunei	41.12%	38.46%	2.66%
UAE	40.44%	40.49%	-0.05%
Philippines	39.94%	36.00%	3.94%
Ukraine	39.66%	33.44%	6.22%
Saudi Arabia	39.44%	36.60%	2.84%
India	38.46%	36.04%	2.42%
Kenya	36.82%	32.60%	4.22%
Vietnam	36.62%	30.69%	5.93%
South Africa	36.62%	34.56%	2.06%
Argentina	35.74%	33.24%	2.50%
Thailand	33.96%	32.22%	1.74%
Indonesia	30.24%	28.60%	1.64%
Ecuador	30.18%	27.44%	2.74%
Egypt	30.18%	26.29%	3.89%
Kuwait	28.02%	NA	
Nigeria	27.62%	30.11%	-2.49%
Pakistan	26.50%	26.67%	-0.17%
Algeria	24.06%	22.84%	1.22%
Venezuela	14.22%	15.80%	-1.58%

What conclusions, if any, can be drawn from this positive movement of over 85% of the economies benchmarked compared with last year?

In all honesty, the complex picture tracked by the Index of each economy are not conforming to one storyline.

While there are always outliers and economies that *did*, in fact, see a notable and substantial improvement in their national IP environments, much of this positive score movement comes from the inclusion of five new treaties. Most of the economies included in the Index are contracting parties to one or more of the new treaties benchmarked. It is thus not surprising that so many should see a positive change in score. Still, this does not discount the fact that signing up to international treaties and actively participating in setting and adopting international IP standards as enshrined in these treaties is a net positive and economies should be encouraged to do so.

For example, **Canada**, which achieves the greatest overall score increase compared with the seventh edition of the Index, has seen a dramatic improvement in its performance on Category 9: Membership and Ratification of International Treaties. This is due to a dedicated commitment from the Canadian Government to join several major IP treaties over the past half-decade as well as the addition of new treaties to the Index. In the first edition of the Index, published in 2012, Canada achieved a score of 1 out of a total available score of 5 (20%). In this year's edition of the Index, Canada achieves a score of 7 out of a possible 7 (100%). In 2019 Canada acceded to three international treaties included in the Index: the Singapore Treaty on the Law of Trademarks, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, and the Patent Law Treaty. This is a remarkable achievement which will strengthen the environment for IP rights holders in Canada.

But in other economies a score rise on Category 9: Membership and Ratification of International Treaties has been coupled with reform efforts in other areas.

For example, like Canada, **Israel** achieves a substantial overall score increase from the seventh edition and passed substantive copyright reforms in 2019. The protection of copyright online has long been a challenge for rights-holders, and for many years Israel has remained an outlier among OECD economies because it had no specific legal framework in place regarding notice-and-takedown mechanisms or other administrative or regulatory mechanisms to effectively enforce copyright and related rights in the online environment. In January 2019 this changed when the Israeli Parliament, the Knesset, passed a series of amendments to the Copyright Law. Specifically, these new amendments introduce liability for indirect online infringement as well as a court-based injunctive-style relief mechanism. Overall, these amendments strengthen Israel's copyright regime and have resulted in scores rises on three separate indicators.

Similarly, **Peru**, which also achieved a substantive increase in its overall score, made tangible efforts to improve its national IP environment. To begin with, in January 2019 the Peruvian IP office INDECOPI joined the Global Patent Prosecution Highway. Furthermore, while Peru's copyright laws and regulatory framework remain quite basic, INDECOPI has begun more forcefully tackling online piracy and acting against copyright-infringing sites. In 2019 the agency disabled access to six websites at the request of Spanish football division *La Liga*. INDECOPI is also reportedly considering *ex officio* actions and measures targeting websites established outside Peru. Additionally, the Copyright Commission of INDECOPI ordered the e-commerce platform Mercado Libre remove the links to 28 advertisements offering counterfeit products linked to the Pan American Games of 2019. In another positive step, INDECOPI was a key player in drafting legislative language for tougher penalties on the unauthorized camcording of films in movie theaters.

Conversely, a mix of both high-income, developed OECD and lower-income economies saw their scores drop: the **UAE, Pakistan, Ireland, Australia, Sweden,**

Venezuela, and **Nigeria**. Venezuela and Nigeria saw the steepest drops of 1.58% and 2.49%, respectively.

Rights-holders in Venezuela face a highly uncertain and challenging business environment. Political conditions remain fraught, with portions of the Venezuelan government effectively ceasing to operate. The Venezuelan IP Office (SAPI) in 2018 suspended its services and ceased operations for a period of months. Although the agency appears to be operational, in 2019 several announcements were made regarding the processing of payments and fees. In February 2019 SAPI published a new set of official fees and stated that only the government-sponsored cryptocurrency, Petro, could be used as a method of payment. This unusual arrangement presents international rights-holders with distinct legal and logistical challenges. Venezuela failed to achieve any points on the five new indicators introduced in this year's Index.

Similarly, Nigeria also performed poorly on the Index's five new indicators. For example, regarding Indicator 4 (Plant variety protection, term of protection), there is currently no law or regulation in place for plant variety protection. At the time of research, the Nigerian Parliament was debating the Plant Variety Protection Bill of Nigeria with the view of depositing this and acceding to International Union for the Protection of New Varieties of Plants (UPOV).

Both the UAE and Pakistan performed poorly on Category 9: Membership and Ratification of International Treaties.

And similarly, Australia's performance regarding international treaties was weaker than in previous editions as it is not a contracting party to the Hague Agreement Concerning the International Registration of Industrial Designs.

New Index economies in 2020

There were three new economies added to the Index this year, the **Dominican Republic**, **Greece**, and **Kuwait**.

Greece achieved the highest overall score of the three. In particular, Greece performs well on Category 1: Patents, Related Rights, and Limitations as it benefits from being a contracting state to the European Patent Convention. This does not mean that Greek patent law has no gaps. In 2019 Greece amended its patent law and provisions relating to compulsory licensing. Under Article 14 of Law 4605/2019 a compulsory license may now be issued "for compelling reasons of public interest." These amendments insert a new criteria of price considerations and use cost as a basis for issuing a compulsory license. Yet cost is not a relevant justification or basis for compulsory licensing under the TRIPS agreement. Article 31 and the Doha Declaration suggest that compulsory licensing represents a "measure of last resort," intended primarily for public health and humanitarian emergencies such as pandemics, and should be used only after all other options for negotiating pricing and supply have been exhausted. Local Greek legal analysis suggests that the purpose of the new legislation is to make compulsory licensing as a public policy tool more attractive.¹⁷

For the Dominican Republic, its national IP environment benefits from its participation as a contracting party to the CAFTA, although, like other Central American economies, a lack of implementing the agreement is holding back its score. For example, rights holders continue to face grave challenges to enforcing their copyrights as there is no notification regime in place under existing copyright statute. Article 15.11, Paragraph 27 (Limitations on Liability for Service Providers) of the CAFTA provides a detailed description of a notification regime for rights holders and provides safe harbor to ISPs upon "expeditiously removing or disabling access, on receipt of an effective notification of claimed infringement" to infringing content. This has, however, not been implemented. Similarly, the issue of signal piracy has been brought up numerous times by international rights-holders and the U.S. government. This was, for example, made in a side letter between the United States and the Dominican Republic in 2004 during the conclusion of the CAFTA. Authorities

in the Dominican Republic have repeatedly made a commitment to more effectively enforce copyright and address this issue but have thus far failed to do so; consequently, the infringement of copyright through signal piracy remains highly pervasive and constitutes a major source of illegal content in the Dominican Republic.

Finally, Kuwait achieves one of the weakest scores on the Index, at 28.02% of the total available score, and an overall rank of 49 out of 53. This score is just ahead of Nigeria and Pakistan and behind Ecuador, Egypt, and Indonesia. Kuwait displays both legislative and enforcement weaknesses across the board in all categories of the Index. As one of the most developed economies in the region and with one of the highest levels of per capita income in the world, this is somewhat surprising.

2020 results for the BRICS

Some of the world's fastest-growing emerging markets still have work to do. As discussed in the previous section, **China** has consistently seen its Index score improve over the past few years. This continued in 2019, with important reforms to its technology transfer and licensing environment standing out. However, China receives just over half of the available score at 50.96%.

Similarly, **India** has shown real improvement over the past few years. It has made a string of positive efforts which resulted in a score increase because of stronger enforcement efforts and precedent-setting court cases involving copyright and trademark infringement. Nevertheless, rights-holders in India continue to face substantive challenges, particularly regarding the patenting environment, in which India's policy framework continues to deny patent eligibility to a broad range of innovations.

Although less pronounced than China and India, **Brazil** has also taken some positive steps in recent years

to strengthen its national IP environment. In 2019, the Brazilian Government continued taking several administrative steps that directly and indirectly seek to make the patent registration and prosecution process less bureaucratic and time consuming. The Brazilian Patent Office (INPI) has a long-standing backlog of patent applications ranging from 10 to 13 years depending on the field of technology; applications in the biopharmaceutical and ICT fields are traditionally the worst affected. In 2019 a new INPI initiative was announced, the Backlog Fight Plan (*Plano de Combate ao Backlog de Patentes*). The INPI's goal is to both reduce the existing patent application backlog substantially by 2021 and, moving forward, reduce the average patent prosecution timeline to about two years. More broadly, the new government led by President Jair Bolsonaro has taken substantive action in opening the Brazilian economy, improving public administration, and reducing bureaucracy and red tape. In 2019 the president signed into law the Declaration of Rights of Economic Freedom (Law No. 13,874, 2019) to elevate the right to free enterprise and economic activity as a guiding principle for the federal government. The law seeks to eliminate unnecessary rule-making and governmental barriers to economic activity. For IP rights-holders—both for patents and for other registerable IP rights—this could provide a substantively higher level of clarity and certainty with how relevant Brazilian authorities will deal with future applications and the timelines in which a decision must be made.

The picture was more mixed in **Russia** where an increase in its overall score as a result of a good performance on the new indicators added masked other negative developments. Amendments to Russian patent law and practices of the Russian patent office ROSPATENT were issued in late 2018. In a negative development, part of these amendments inserts new claim restrictions on second use patent claims for medicines. If implemented, over time these restrictions are likely to reduce the number of eligible applications and scope of available patent protection for second

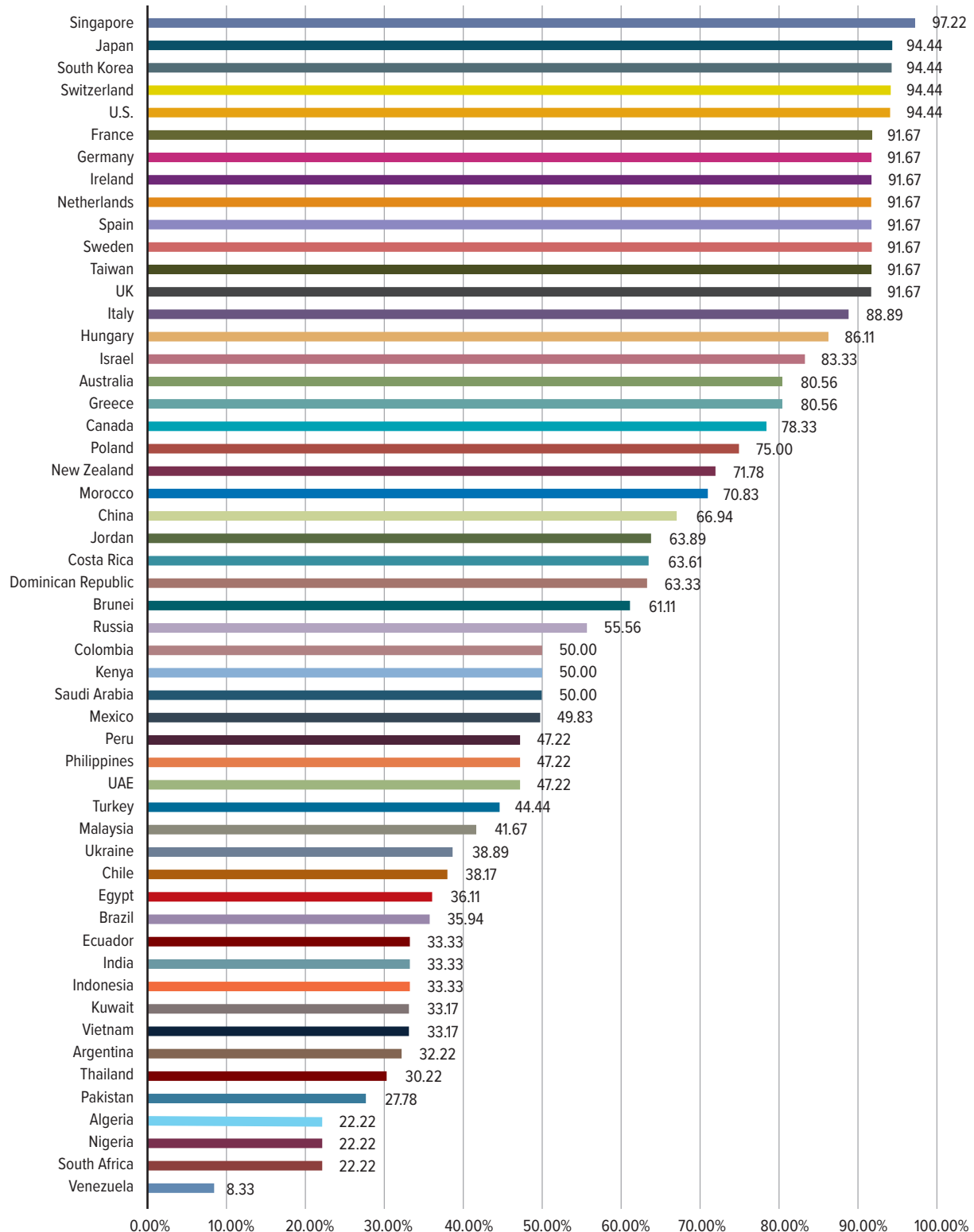
use innovations. Furthermore, some of the changes introduced in 2014 amendments to the Civil Code Part IV regarding patent term restoration came into effect in 2019. Specifically, the 2014 amendments introduced several new layers and requirements for rights-holders when applying for this restoration. The most significant of these was the requirement to apply for (and ROSPATENT to issue) an additional new and distinct restoration-specific patent. Unlike the pre-2014 regulations, these new requirements are more restrictive in both design claim and scope of the restoration-specific patent.

Finally, rights-holders continue to face real hurdles in protecting their IP assets in **South Africa**, particularly in light of draft amendments that contradict international copyright norms. South Africa's score remains the weakest of all the BRICS economies and has largely remained static over the past few editions of the Index. In 2018 South Africa achieved an overall score of 34.27% and ranked 39th out of 50 economies benchmarked. This year South Africa achieves a score of 36.62% and ranks 43rd out of the 53 economies included.

Category 1: Patents, Related Rights, and Limitations

Figure 4 summarizes the total scores for Category 1. This category measures the strength of an economy's environment for Patents, Related Rights, and Limitations. The category consists of nine indicators, with a maximum possible score of 9.

Figure 4: Category 1: Patents, Related Rights, and Limitations, percentage available score



This year one additional indicator has been added to this category. Indicator 4 (Plant variety protection, term of protection) measures the maximum term of protection for plant varieties in accordance with the International Convention for the Protection of New Varieties of Plants, act of 1991. The protection of plant varieties is an increasingly important area of IP rights. With new plant varieties, breeders seek to produce varieties that provide greater yields, and/or are pest-resistant, or have other beneficial characteristics, including longer shelf-life or higher nutritional value. Over the past half-century the use of both traditional plant breeding and new molecular-based genetic engineering has revolutionized agriculture and food production. The use of biotechnologies has enabled millions of farmers around the world to benefit from higher yields, more pest-resistant crops, and increased food production for growing populations. In 1996 biotech crops were grown on an estimated 1.7 million hectares of land.¹⁸ Today that total has grown exponentially and is close to 200 million hectares, with biotech crops being cultivated on an estimated 189.8 million hectares of land.¹⁹ Effective IP protection for plant varieties will be critical to ensuring this burgeoning industry continues to grow.

The overall results from Category 1 show a clear group of 13 high-performing economies, all with a score of over 90% of the available score. An additional seven economies achieve a score of 75% or more on this category, bringing the total number of economies with a score of 75% or more to 20. As in years past, **Singapore** is ranked number one, comfortably ahead of **Japan**, **South Korea**, **Switzerland**, and the **United States**. The patenting environment in the United States continues to be impacted by uncertainty over what constitutes patentable subject matter through the *inter partes* review (IPR), which occurs before the specialized Patent Trial and Appeals Board (PTAB) within the USPTO. Since the Supreme Court decisions in *Myriad*, *Mayo*, and *Alice*, there has been a high and sustained level of uncertainty about which inventions are patentable in the United States. Since 2014 the

USPTO has issued and updated patent examination guidelines almost on an annual basis. Lower and circuit court decisions in patent infringement proceedings have not always been consistent. The net result is that rights-holders are left without a clear sense of how decisions on patent eligibility will be made or, when granted patents are subsequently challenged or reviewed either through the courts or through the *inter partes* proceedings within the USPTO, which patent claims will be upheld. Under the leadership of USPTO Director Andrei Iancu, the USPTO has recognized this dilemma and over the past two years has sought to reformulate its position and the approach to be taken by its examiners. In January 2019 the USPTO released new draft guidance covering Section 101 and Section 112, the “2019 Revised Patent Subject Matter Eligibility Guidance” and “Examining Computer-Implemented Functional Claim Limitations for Compliance With 35 U.S.C. 112.” Overall, this is a very positive step. Regarding Section 101 patentability, the new guidance provides more of a principle-based analysis of how patentability will be judged and describes the stepwise approach examiners should follow to understand and apply the Supreme Court’s *Alice/Mayo* test. As the guidance rightly points out, the key challenge for USPTO examiners and courts has been to “consistently distinguish between patent-eligible subject matter and subject matter falling within a judicial exception.” The new guidance recognizes this and seeks, to the extent that is possible without further statutory changes, to clear this up with a revised procedure and process for examiners to follow. The Index commends USPTO Director Iancu for taking this action and working with all stakeholders to improve what is a challenging situation for rights-holders, applicants, and examiners alike. However, the USPTO guidance is not binding on the courts and the interpretation of the Supreme Court decisions in *Myriad*, *Mayo*, and *Alice* by lower courts remains inconsistent and difficult to apply. There continues to be considerable uncertainty for innovators and the legal community, as well as an overly cautious and restrictive approach to determining eligibility for patentable subject matter in areas

such as biotech, business methods, and computer-implemented inventions. This seriously undermines the long-standing world-class innovation environment and threatens the nation's global competitiveness.

Similarly, over the past two years the USPTO has recognized the unintended effects of the PTAB system and has publicly pledged to work with all stakeholders to address and remedy them. The USPTO has introduced several important changes in 2018 and 2019. In 2018 USPTO Director Iancu stated that the reform of IPR proceedings was one of the agency's "highest priorities," and the USPTO was considering "how and when we institute proceedings, the standards we employ during the proceedings, and how we conduct the overall proceedings. The goal, with whatever action we take, is to increase predictability of appropriately scoped claims." Following these remarks, important reforms were announced during the year. These included (1) changing the patent claim construction standard used, moving away from the broadest reasonable interpretation standard to the so-called "Phillips standard," the latter of which is the claim construction standard used by federal courts since the mid-2000s; (2) a new *Trial Practice Guide*; and (3) Standard Operating Procedure (SOP) changes. Using the Phillips standard has aligned IPR proceedings with the same claim construction standards that are used in patent infringement proceedings at U.S. district courts. The new *Trial Practice Guide* provides greater clarity on the grounds on which a review may be initiated. And the changes to both SOP 1 and SOP 2 sought to streamline how judges are assigned, how panels are composed, and how precedent-setting opinions are set. Specifically, SOP 2 set up a Precedential Opinion Panel (POP) headed by the director. These reform efforts continued in 2019. At the time of research, the POP had issued 13 decisions in 2019 alone. Several of these decisions are of high procedural importance and address issues relating to the USPTO director's decisions to institute IPR proceedings (see, for example, *Valve Corp. v. Electronic Scripting Products, Inc.*) and procedural rules, including the declaration of interested

parties (*Proppant Express Investments, LLC v. Oren Techs., LLC*). As with the issuing of new guidance on patentability, the USPTO should be commended for taking decisive action and attempting to create a greater degree of balance within the IPR system.

In other areas rights-holders continued to face uncertainty and a challenging environment.

In October 2017, China's central government committed to introducing a patent linkage mechanism and issued State Council Opinions on Deepening Regulatory Reforms to Encourage Drug and Medical Device Innovation—increasing China's score on this indicator from 0.0 to 0.5. The commitment was not subsequently implemented in 2018 and 2019. As a result, the score on this indicator has been reduced by 0.25 in this edition of the Index. In early 2020, China again committed in the Phase I Agreement (Article 1.11) to adopt a form of patent linkage. Upon implementation, China's score on this indicator will be reevaluated.

As has been noted over the past few editions of the Index, a growing number of economies are examining the use of compulsory licensing for medicines as a form of health policy and cost control mechanism. Traditionally, this has been the purview of developing economies such as India, Thailand, and Indonesia. However, in 2019 several high-income developed economies announced their intentions to explore the use of overriding granted periods of exclusivity to contain public health care spending. Of particular note is the **Netherlands**.

Since 2017 the Dutch Ministry for Medical Care has stated its intention to explore the use of compulsory licensing for medicines whose price is deemed excessive, acting on the advice included in a report by the Council for Public Health and Society (*Development of New Medicines – Better, Faster and Cheaper*) that encouraged the use of compulsory licensing to strengthen the government's position in price negotiations. Threats of the compulsory

licensing of medicines as a basis for price negotiations is something usually associated with low-income developing economies with underdeveloped health systems and limited financial resources, not a high-income EU and OECD Member State with one of the most sophisticated health systems in the world. The issuing of a compulsory license undermines the basic idea of the protection and sanctity of property rights, including IP rights in place to protect and incentivize biopharmaceutical innovation. As international law, including the TRIPS treaty, and existing Dutch and EU laws clearly state, although there are extreme circumstances involving national emergencies under which property rights may be overridden—including the issuing of a compulsory license for a medicine—cost is not a relevant justification or basis for compulsory licensing or the overriding of any granted form of biopharmaceutical exclusivity. Moreover, the use of these types of licenses threatens the very foundation of the Netherlands' and EU's position as global leaders in innovation and high-tech industries, including biopharmaceuticals. More broadly, the overriding of biopharmaceutical IP rights on the basis of cost and price negotiations sets a wholly negative precedent that may be applied to other industries and sectors. If the Dutch government wishes to pay less, or nothing, for medicines using compulsory licenses, what is to say that this will not be applied to the procurement of medical devices, software, trains, automobiles, or any other high-tech product that the public sector purchases?

Even in the **United States** there has been growing interest in the use of compulsory licenses to override patents or other forms of exclusivity for biopharmaceutical products. Usually justified on the basis of the perceived high cost of prescription drugs, these ideas are similar to what has been discussed, and, at times, implemented, in developing economies over the past three decades. As with the Dutch proposals, the issuing of a compulsory license on the basis of cost undermines the basic idea of the protection and sanctity of IP rights and is contrary

to existing U.S. statute. Moreover, the use of these types of licenses would threaten the very foundation of America's position as the undisputed global leader in biopharmaceutical innovation. Biopharmaceutical breakthroughs by American firms are improving health treatment for patients globally, providing a steady stream of new drugs and health technologies. Since 2000, American companies have developed more than 550 new medicines—roughly half of all drugs launched globally. American research-based biopharmaceutical firms spent an estimated USD58.8 billion in 2015 on R&D, more than 80% of which was spent domestically in the U.S. This leadership in global biopharmaceutical research and manufacturing also translates into large economic dividends for Americans. Revenues generated by a new blockbuster drug are comparable to the export of 1 million cars. The sector also accounts for and supports 4.5 million jobs. The basic economics of the biopharmaceutical industry show how critical IP rights are to incentivize and support the development of new medical technologies and products. In 1979 the total cost of developing and approving a new drug stood at USD138 million. Almost 25 years later, in 2003, this figure was estimated to have rocketed to USD802 million. A more recent estimate puts the total cost of drug development at approximately USD1.5 billion. On average, only one to two of every 10,000 synthesized, examined, and screened compounds in basic research will successfully pass through all stages of R&D and go on to become a marketable drug. Patents and other forms of exclusivity for biopharmaceuticals, such as RDP and special exclusivity incentives for the protection and production of orphan drugs, enable research-based companies to invest these vast sums in R&D and the discovery of new drugs, products, and therapies. It has been clear for many years that U.S. taxpayers and patients are concerned with the cost of prescription medicines and want their elected representatives to take appropriate action. However, the cost of drugs is a complex subject that does not lend itself to generalizing. It involves many different factors such as health system infrastructure; health financing; and how the U.S. health system itself is

organized, financed, and accessed by patients. Within this cost equation the protection of IP plays a relatively small role. Instead of achieving the goal of lowering costs, proposals on using compulsory licenses as a cost-containment tool risk killing the proverbial goose and model of innovation that since the mid-1980s have been providing Americans, and patients around the world, with new and better health technologies and medicines.

In addition to high-income developed economies, the compulsory licensing debate continued to percolate in many middle-income economies.

In **Chile** policymakers continue to push for the use of compulsory licenses in health policy. Congressional changes to a government-proposed bill (*Ley de Farmacos II*) have added new provisions that put IP rights at risk. Some provisions of this bill greatly extend the reach of nonvoluntary licenses, incorporating discretionary elements such as “shortage” or “economic inaccessibility” of products as a legitimate ground for issuing such licenses. Furthermore, members of the Chilean Congress continue to pressure the government to explore the use of compulsory licenses as a cost-containment tool.

In some economies the issue of compulsory licenses has fused with other cross-sectoral industrial policies on localization and technology transfer. As discussed previously in the Index, **Indonesia** continues to raise barriers to the registration, protection, and commercialization of IP assets. In 2016 the Indonesian Parliament (People’s Representative Council) passed a new, wide-ranging patent law (Law 13 2016). The law aimed to strengthen Indonesia’s innovation infrastructure and encourage more high-tech economic development through the creation and use of new technologies, but overall it did not improve what was already a challenging patenting environment. New restrictions on patentability for biopharmaceuticals were introduced together with provisions expanding the potential use of compulsory licensing and parallel

importation of medicines. Since the mid-2000s the Indonesian government has issued nine “government use” compulsory licenses overriding existing biopharmaceutical patents, primarily for hepatitis and HIV drugs. These licenses allow the government to exploit existing patent-protected products in the event of threats to national security or an urgent public need. The manner in which these licenses were issued and their justification were both in contradiction of Article 31 of the TRIPS agreement. TRIPS Article 31, including the amendments introduced in the 2001 Doha Ministerial Declaration and subsequent General Council decision allowing the export of medicines produced under a compulsory license (outlined in Paragraph 6), form the legal grounds for compulsory licensing for medicines. The chairman’s statement accompanying the General Council decision (concerning Paragraph 6 of the Doha Declaration) underscores that these provisions are not in any way intended for industrial or commercial objectives and, if used, it is expected that they would be aimed solely at protecting public health. In addition, Article 31 and the Doha Declaration suggest that compulsory licensing represents a “measure of last resort,” intended primarily for public health and humanitarian emergencies such as pandemics, and to be used only after all other options for negotiating pricing and supply have been exhausted. In December 2018 new Implementing Regulations (Regulation 38/2018) were released by the Indonesian government outlining the process and circumstances under which compulsory licensing could take place. These regulations go far beyond the stated goals and circumstances for the issuing of compulsory licenses under the TRIPS agreement. Specifically, the regulations allow the relevant authorities broad sway to issue a compulsory license when a patent has not been manufactured in Indonesia within a period of three years of grant or if the patent has been used in a manner that is viewed as detrimental to the public interest. It appears that not only do these regulations insert a local manufacturing requirement as a prerequisite for **not** issuing a compulsory license, but also there is no indication of what is meant by actions

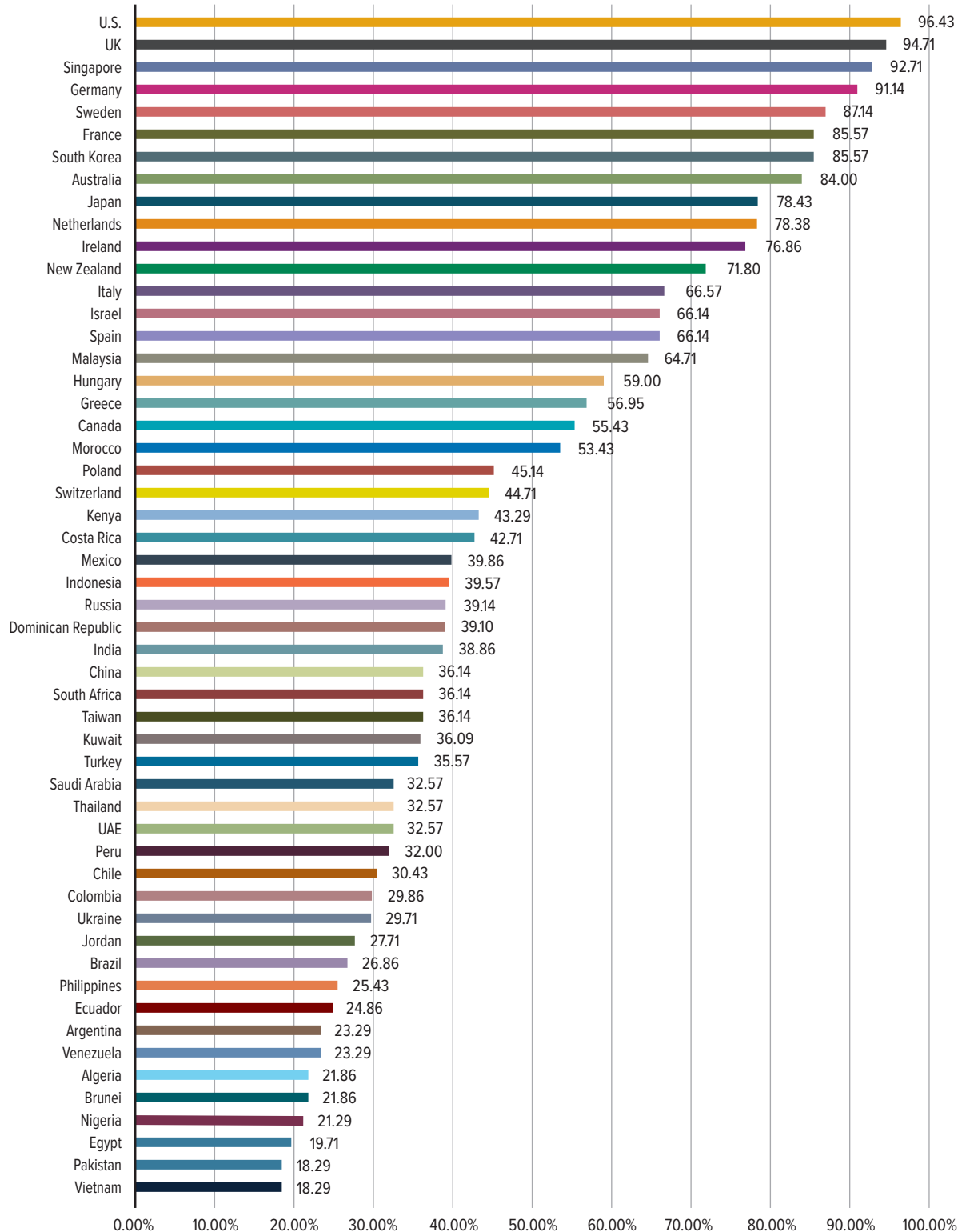
detrimental to the public interest. More broadly, Article 20 of the 2016 patent law seemed to make the granting of a patent conditional on localizing manufacturing and/or R&D in Indonesia. Specifically, it mandated that all patent rights-holders “make” the patented product or process within Indonesia. Subsection (2) of this article stated that this production should support Indonesia’s industrial and development policies, specifically the “transfer of technology, investment absorption and/or employment.” No further details were provided about the meaning or legal definition of “make” in this context. For many years Indonesia has had in place several mandatory localization requirements that target certain industrial sectors (most notably the biopharmaceutical sector), but this new requirement broadened this target to any patented technology. In 2018 long-awaited Patent Regulations were published that aimed to provide clarity on what Article 20 would mean in practice. On the one hand, the regulations affirm the meaning and intent of the original act that the “making” of a patent is an obligation on part of a given rights-holder to make products or use processes in Indonesia and that this must support technology transfer, investment, and/or employment in Indonesia. Upholding the sweeping localization requirements of the original law is not only firmly outside international standards but also likely to do very little to encourage and incentivize the transfer of new technologies or foreign direct investment into Indonesia. On a more positive note, the regulations do provide the possibility of indefinitely postponing these requirements. Article 3 of the regulations allows patent holders to apply to “postpone” the production or use of the patent in Indonesia for up to five years. Article 6 also provides that this five-year postponement may be extended “with reasons.” It is not clear what this application process will look like, what the government authorities will accept as reasons for granting postponement, and how in practice rights-holders will be able to avoid these onerous localization requirements. In early 2019 the government announced that it would be issuing new regulations describing the process for both the new compulsory licensing provisions and the broader

localization and technology transfer requirement. New regulations were released in December 2019. These regulations are an improvement on previous versions. With respect to compulsory licenses, they provide a narrower definition of under what circumstances a compulsory license could be issued and the time period under which a patented invention must be worked. They also provide greater clarity on how to postpone the localization requirement and applicable process. Still, the new regulations do not change the sweeping localization requirements of the original patent law. It also remains to be seen how these regulations are implemented and the net effect they regulations will have on inventors in Indonesia.

Category 2: Copyrights, Related Rights, and Limitations

Figure 5 summarizes the total scores for Category 2. This category measures the strength of an economy’s environment for Copyrights, Related Rights, and Limitations. The category consists of seven indicators, with a maximum possible score of 7.

Figure 5: Category 2: Copyrights, Related Rights, and Limitations, percentage available score



As in years past, the results for Category 2 show how challenging the environment is for creators and copyright holders in the vast majority of sampled economies. Thirty-three of the 53 economies sampled fail to reach 50% of the available score. Many economies have only the most basic forms of protection in place and enforcement remains wholly inadequate. Critically, this problem is not confined to lower-income economies.

For example, **Kuwait**, one of the new economies added this year, has challenges across the board. To begin with, Kuwaiti copyright law does not provide or define a notification system, safe harbor laws, or circumstances in which ISPs and internet mediators are liable for enabling copyright infringement. It also has no legally defined system of injunctive relief or the disabling of infringing content online—whether through a judicial or administrative authority. Some disabling of infringing content has taken place as, more broadly, Kuwaiti authorities review and censor all information and media on the internet. Since 2014-15 new laws relating to telecommunications and cybercrime have invested vast powers in a government regulator (the Communications and Information Technology Authority [CITRA]) to oversee and regulate the online space. Under Law No. 37 of 2014 on the Establishment of Communication and Information Technology Regulatory Authority, CITRA has the power to suspend operating licenses, access to online material, and individual accounts. News reporting and published reports by the U.S. State Department suggest that the Kuwaiti authorities have disabled access to a variety of web content, including sites that link or provide access to copyright-infringing material. CITRA also offers a dedicated web portal through which online requests for the disabling of content online can be requested. However, this portal is not aimed at copyright-infringing content but is much more broadly defined. CITRA describes this activity thusly: “The Communication and Information Technology Regulatory Authority (CITRA) receives requests to block web content that contradicts public interest. This includes public morals, the teachings

of the Islamic faith, public order, and other prohibited content under the laws of the state of Kuwait.”

Copyright enforcement—physical and online—remains challenging. Industry reports suggest that criminal prosecution is virtually nonexistent and that, until 2014, there had been no raids or serious enforcement activities against violators. Some improvements have been made over the past few years, but, as noted by the USTR, the situation remains challenging. Similarly, Kuwait struggles with relatively high rates of software piracy. The latest estimates from BSA | The Software Alliance published in 2018 estimated that 57% of software in Kuwait was unlicensed. This is virtually unchanged since 2011, when the estimated rate was 59%. Because Kuwait is one of the most developed economies in the region, with one of the highest levels of per capita income in the world, this figure stands out. Saudi Arabia and Qatar both have 2018 estimated rates of unlicensed software at 47% and the UAE at 32%—substantially lower than Kuwait. Also, industry reports suggest that government use of unlicensed software has historically been a problem. Over the past few years Kuwaiti authorities have begun to recognize this problem and have taken several measures to more effectively manage its overall use of ICT products and services. In addition to the telecommunications and digital infrastructure regulator CITRA, the Central Agency for Information Technology (CAIT) oversees the development of national IT infrastructure and e-government and is overseeing the development of the National Information Technology Governance Framework. Both CITRA and CAIT as well as the Ministry of Finance have developed procurement guidelines for software and ICT hardware. The Ministry of Finance publishes an annual “purchase guide” for ICT hardware to be used by all government agencies. Similarly, CAIT has overseen the establishment of an Enterprise Agreement (a volume licensing agreement designed specifically for governments and large organizations) with Microsoft for the provision of licensed software and ICT services. The latest publicly available agreement is for the period 2017-20.

Still, this does not mean that all economies on the Index are failing to more effectively address the issue of copyright piracy.

In what is otherwise a challenging copyright environment in **India**, a positive trend has emerged over the past few years with rights-holders increasingly being able to defend and enforce their copyrights through injunctive relief. Since 2012 there have been several cases whereby access to websites offering pirated and infringing content has been disabled through court orders, including notorious international sites like *The Pirate Bay*. Injunctions have been issued by both the High Court of Delhi and High Court of Bombay, with the Department of Telecommunications instructing Indian ISPs to carry out the orders. This positive trend continued in 2019. In an important precedent-setting case, in April 2019 the Delhi High Court issued a so-called “dynamic” injunction. Such an injunction addresses the issue of mirror sites and disables infringing content that re-enters the public domain by simply being moved to a different access point online. These types of dynamic injunction orders are becoming more commonplace, with similar mechanisms available in, for example, Singapore, the UK, and Russia. In the Delhi Court’s judgment the judge stated that the rationale behind the dynamic injunction was to help administer justice for the rights-holder as well as assist the authorities in their work: “It is desirable that the Court is freed from constantly monitoring and adjudicating the issue of mirror/redirect/alphanumeric websites and also that the plaintiffs are not burdened with filing fresh suits.” This marks a potential turning point in copyright enforcement in India. The growth and spread of broadband connectivity and the ubiquity of mobile phones has led to a substantive increase in accessing infringing content. This includes all types of content and affects all creative industries—foreign and Indian produced. The latest estimates on the impact of piracy on, for example, the music industry come from the national trade association The Indian Music Industry, which together with the accountancy firm Deloitte

published a report in September 2019 about the state of the music industry. The study, *Economic Impact of the Recorded Music Industry in India*, finds that piracy results in losses of approximately USD250 million a year and labels the growth of infringement as a “piracy epidemic.”

Similarly, one of the new economies included in the Index, **Greece**, which historically has been home to very high levels of online piracy with limited to no practical remedial action available to rights-holders, has seen some positive changes over the past few years. The Greek Government has attempted to address the growing issue of online piracy with new legislation. Article 52 of Law 4418/2017 sets up what is essentially an administrative tribunal to review online copyright infringement cases, the Committee for Online Copyright Infringement, which is housed under the Ministry of Culture and Sports. Under Article 52 the committee has the right to hear cases on alleged infringement and, where infringement is found, order the relevant parties and ISPs/internet mediators to remove and/or disable access to the infringing materials. Critically, the committee has the authority to order the disabling of access to infringing content within Greece even if the server or host is located outside Greece. In November 2018 the committee issued its first substantive ruling ordering the disabling of access to 38 websites enabling or hosting infringing content, including *The Pirate Bay*. The committee’s actions are positive and should be applauded by rights-holders inside and outside Greece. However, it remains to be seen how effective these orders will be. Unlike other economies in which a similar mechanism has been established, there is no dynamic element to these orders. In effect, infringing sites and hosts can simply change their domain names, forcing rights-holders to repeat a similar process. Still, with the establishment of this committee and the exercise of its powers, Greece joins the growing number of economies that are using judicial or administrative mechanisms to effectively disable access to infringing content.

In **Ecuador** too, the relevant authorities are taking more action against pirate websites. In June 2019 the Ecuadorian national IP authority (SENADI) ordered local ISPs to disable access to several websites hosting infringing and unlicensed content. The administrative order followed a request made by local rights-holders Fox Latin America and the Spanish national soccer league *Liga Nacional de Fútbol Profesional (La Liga)*. The order is a first in Ecuador and marks a positive step in what has traditionally been a challenging copyright environment for rights-holders. SENADI justified its decision and authority with reference to the 2016 *Código Ingenios* and the Telecommunications Act. Although no specific article in the *Código* pertains to the disabling of infringing content or describes how this administrative mechanism would work, SENADI cited the broad administrative enforcement powers given to it under Article 10 of the law.

Other economies are also embracing powers to disable access to infringing websites.

For instance, in **Malaysia** the Malaysian Communications and Multimedia Commission (MCMC) and the Ministry of Domestic Trade and Consumer Affairs have broad authority to censor all manner of content in Malaysia, including that suspected of infringing copyright. Data released by the MCMC suggests that between 2008 and 2016 access to close to 12,000 websites (11,684) were disabled. Most of these sites were pornographic, with a minority relating to other offenses, including copyright infringement. Copyright infringement and, specifically, the disabling of access to sites that provide infringing content through set-top boxes also increased in 2019. In February 2019 the MCMC disabled access to 246 such websites. In addition to acting on rights-holders' complaints about copyright infringement, the MCMC was also taking action on the sale of the hardware and set-top boxes themselves, as the majority on the market had not been certified or received regulatory approval for sale. Malaysia's positive actions on set-top boxes follow the actions of neighboring **Singapore**,

which continues to provide regional leadership on copyright enforcement.

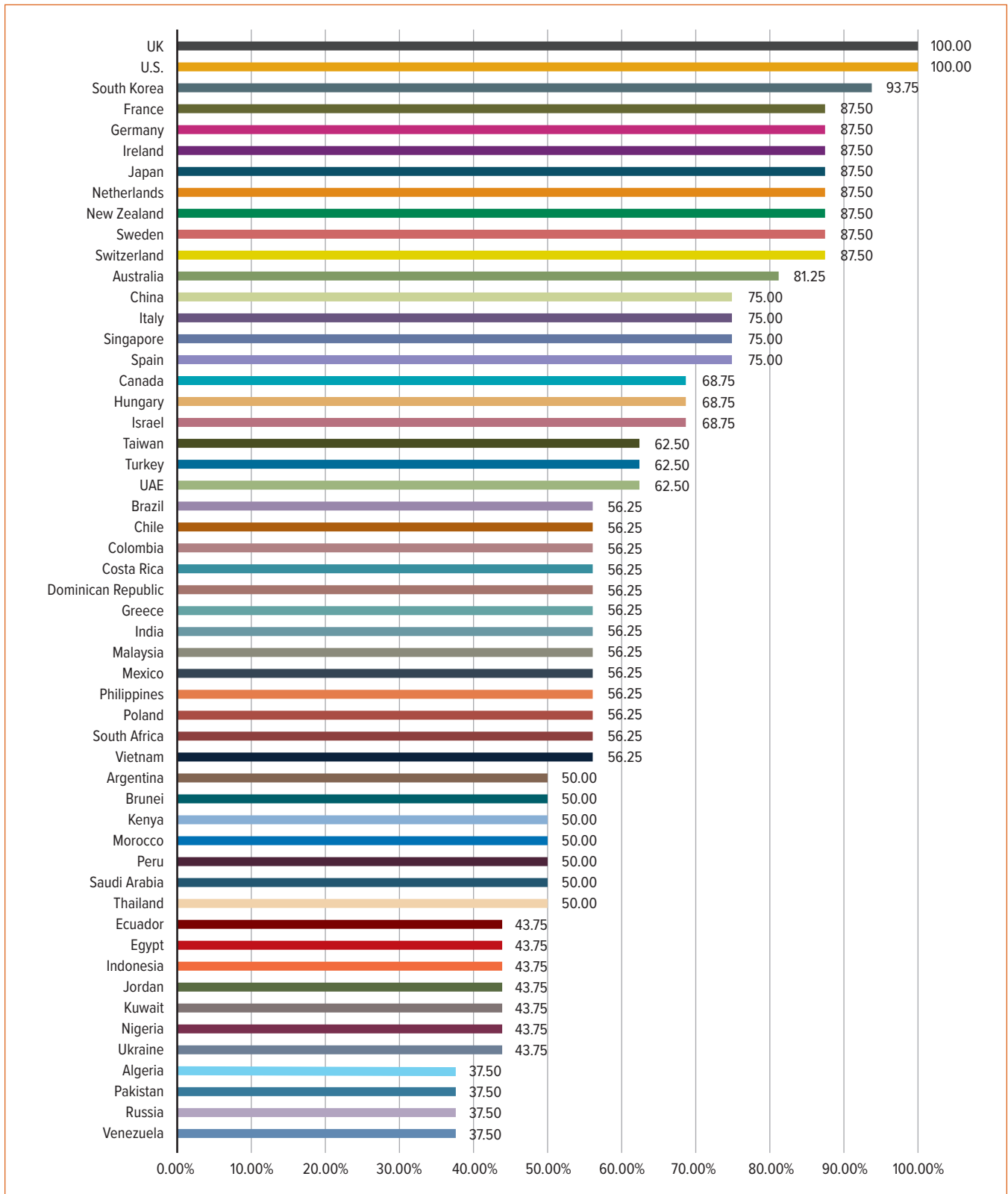
Asia, Singapore in particular, has seen an explosion in the growth and use of such boxes. A survey published in late 2018 commissioned by a local coalition of rights-holders, the Coalition Against Piracy, found that 15% of those surveyed used such a set-top box to access and stream illegal content. As part of a wide-ranging review of its copyright laws, the Ministry of Law and the Intellectual Property Office of Singapore in 2019 recognized some of the remaining gaps regarding enforcement capabilities and set-top boxes in particular. The agencies recommended passing new legislation that would introduce civil and criminal liability on any individuals who "willfully make, import for sale, commercially distribute or sell" such set-top boxes.

Recent academic research shows the efficacy of disabling of access to infringing content. In a 2019 study researchers with the Carnegie Mellon University's Initiative for Digital Entertainment Analytics examined the effects of three separate court-ordered injunctions in the UK in 2012, 2013, and 2014.²⁰ The authors found that the disabling of access to infringing content in 2013 and 2014 had a positive and notable impact on consumer behavior, reducing access to pirated content, and increasing the use of legal, paid-for subscription content. However, underlining the fact that injunctive relief must be wide-spanning and comprehensive, the study also found that disabling access to just one single site, as happened in the 2012 case study, was not in itself the most effective. The authors concluded that "to increase legal IP use when faced with a dominant piracy channel, the optimal policy response must block multiple channels of access to pirated content."²¹

Category 3: Trademarks, Related Rights, and Limitations

Figure 6 summarizes the total scores for Category 3. This category measures the strength of an economy's environment for Trademarks, Related Rights, and Limitations. The category consists of four indicators, with a maximum possible score of 4.

Figure 6: Category 3: Trademarks, Related Rights, and Limitations, percentage available score



Most economies sampled in the Index offer basic forms of trademark protection. However, challenges persist in the enforcement of trademark rights, especially through online merchants and auction sites. As more consumers are able to access and use the internet, online commerce is growing in popularity. In 2019 total e-commerce sales worldwide were estimated to be USD3.46 trillion, up by 17.9% from 2018.²² E-merchants and online platforms such as eBay, Amazon, Alibaba, Mercado Libre, and others today account for a growing share of global retail sales. Unfortunately, as online shopping becomes more popular and widespread, so too does the proliferation and sale of counterfeit goods. Several online merchants are included in the USTR's annual Notorious Markets Lists; these include some of the biggest in the world, such as DHGATE.com, Indiamart, and Taobao. Few economies offer effective mechanisms to combat the increased sale of counterfeit goods through these online auction houses and merchants. There are private initiatives—such as eBay's Verified Rights Owner Program—through which online merchants have in place measures to combat the sale of counterfeit goods. There are also some examples of jurisdictions in which relevant legislation or case law has established an obligation on the part of online merchants to take down IP-infringing material upon notification by a rights-holder. For example, in the 2011 European Court of Justice (ECJ) case *L'Oréal SA and others v. eBay International AG and others*, Case C-324/09, the ECJ established the principles and obligations regarding the E-Commerce Directive and online auction houses. Overall, the mechanisms in place are outweighed by the sheer quantity of counterfeit goods available online. However, like in 2018, there were some new, positive developments in 2019.

Like many other economies included in the Index, e-commerce and online shopping is growing fast in **India**. In 2018 the Indian e-commerce market was estimated to be valued at just under USD50 billion and is expected to more than quadruple by 2026. The growth of this market has brought with it an

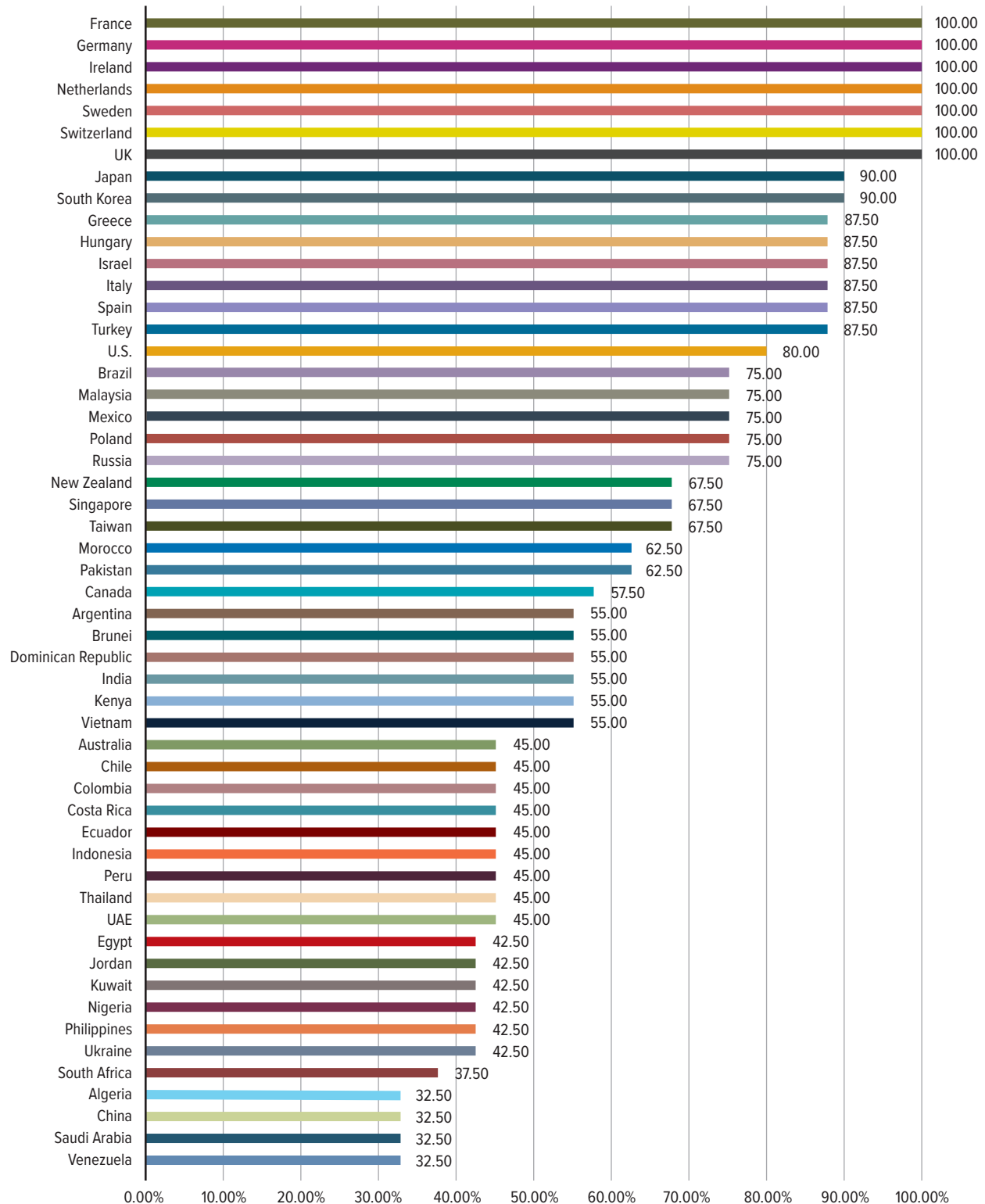
equally strong growth in the sale and availability of counterfeit goods online. Market research by local firm Velocity MR and published in *Quartz India* in 2018 estimated that one in three Indians had received a counterfeit good when shopping online. Historically, online retailers and platforms have been subject to the requirements of the Information Technology Act 2000, subsequent 2008 amendments, and Information Technology (Intermediaries Guidelines) Rules, 2011. These rules present a fairly clear process whereby internet intermediaries are required to take action against any illicit activity upon obtaining knowledge of the activity. Section 79 of the 2008 amendments clearly defines what network service providers' or intermediaries' responsibilities are to qualify for a safe harbor protection, including a responsibility to “upon receiving actual knowledge ... expeditiously remove or disable access” to any illicit or infringing activity. The 2008 amendments specifically included online commerce platforms and vendors; Section 2, Clause H of the amended act includes “online-auction sites” and “online-market places” under its definition of “intermediary.” Unlike for copyright, until 2018-19 there had been relatively little in the way of case law and guidance on how these requirements would operate within a trademark setting. The past 18 months have seen several important developments in both the case law and understanding of existing regulatory requirements as well as new proposals from the Indian government on strengthening current regulations. In November 2018 the Delhi High Court handed down a potential precedent-setting verdict in the case *Christian Louboutin SAS v. Nakul Bajaj and Ors*. In her judgment in favor of the plaintiff, The judge succinctly summed up the dilemma for rights-holders and the responsibilities of online sellers: “While Section 79 of the IT Act is to protect genuine intermediaries, it cannot be abused by extending such protection to those persons who are not intermediaries and are active participants in the unlawful act.” While only an interim judgment, further guidance on the meaning of Section 79 was provided in *Amway & Ors. v. IMG Technologies & Ors*. Here the judgment stated clearly that to qualify for the

safe harbor provisions of the IT Act, “any information, which infringes patent, trademark, copyright or other proprietary rights, would be required to be taken down as per the due diligence provisions of the Intermediary Guidelines, 2011.” Regarding online retailers, the verdict further stated, “If any content on the marketplace violates trademark or other proprietary rights, the same would have to be taken down upon receiving notice.” In a further development in 2019, the Ministry of Information Technology released several drafts of new Intermediary Guidelines Rules. Similarly, the Department for Promotion of Industry and Internal Trade released a draft *National e-Commerce Policy*, which also includes proposals on anticounterfeiting and IP protection. At the time of research neither the Intermediary Guidelines Rules nor the *e-Commerce Policy* had been finalized.

Category 4: Design Rights, Related Rights, and Limitations

Figure 7 summarizes the total scores for Category 4. This category measures the strength of the environment for design rights. The category consists of two indicators, with a maximum possible score of 2. These indicators measure the maximum term of protection being offered (including renewable periods) for design rights and the extent to which economies have in place and apply laws and procedures that provide necessary exclusive rights (including making, marketing, trading, and use of an industrial design), respectively.

Figure 7: Category 4: Design Rights, Related Rights, and Limitations, percentage available score



Most economies included in the Index have in place some form of design law and defined term of protection. The average score achieved on this category is the highest of all nine Index categories, at 64.20%.

Economies are increasingly realizing the benefits of strengthening the protection of rights relating to design and aligning national standards with international standards as captured in the Hague Agreement (for more on the Hague Agreement see the below discussion on Category 9: Membership and Ratification of International Treaties).

For example, in 2017 **Israel** passed a new design law (Designs Law, 1176-2017) that entered into force in August 2018. Through this legislation, Israel fulfills the conditions of the Hague Agreement concerning the International Registration of Industrial Designs, which provides protection of industrial designs in all member economies under a single registration. The new law increases the term of protection from 15 to 25 years and gives courts the authority to award statutory damages of up to ILS100,000 (about USD26,300) in cases of infringement. Rights holders will also be able to seek remedy in the form of injunctive relief, including seizures and destruction of infringing goods. Furthermore, the owner of a registered design may request customs detention of infringing goods suspected of importation for commercial purposes. An intentional infringement of a registered design for commercial purposes under the new law constitutes a criminal offense punishable by a fine of up to ILS226,000 (about USD59,500) for individuals or ILS452,000 (about USD119,000) for corporations. The law also provides protection for unregistered industrial designs. The term of protection is 3 years and unregistered designs have the same rights to potential damages claims. As a result, Israel's score on these indicators has increased. Capping off this reform process, Israel acceded to the Hague Agreement (Geneva Act) in October 2019.

Similarly, in **Taiwan** amendments to the Patent Act promulgated by presidential order on May 1, 2019 extend the term of protection for industrial design from 12 to 15 years (art 135 of the Patent Act), with the goal to better align the Taiwanese legal environment with the Hague Agreement.

And in **Mexico**, in September 2019 the Mexican Senate approved of Mexico's accession to the Hague System (Hague Agreement and Geneva Act). The accession was made possible by the reform of the Industrial Property Law, specifically the chapter related to Industrial Designs, carried out in 2018.

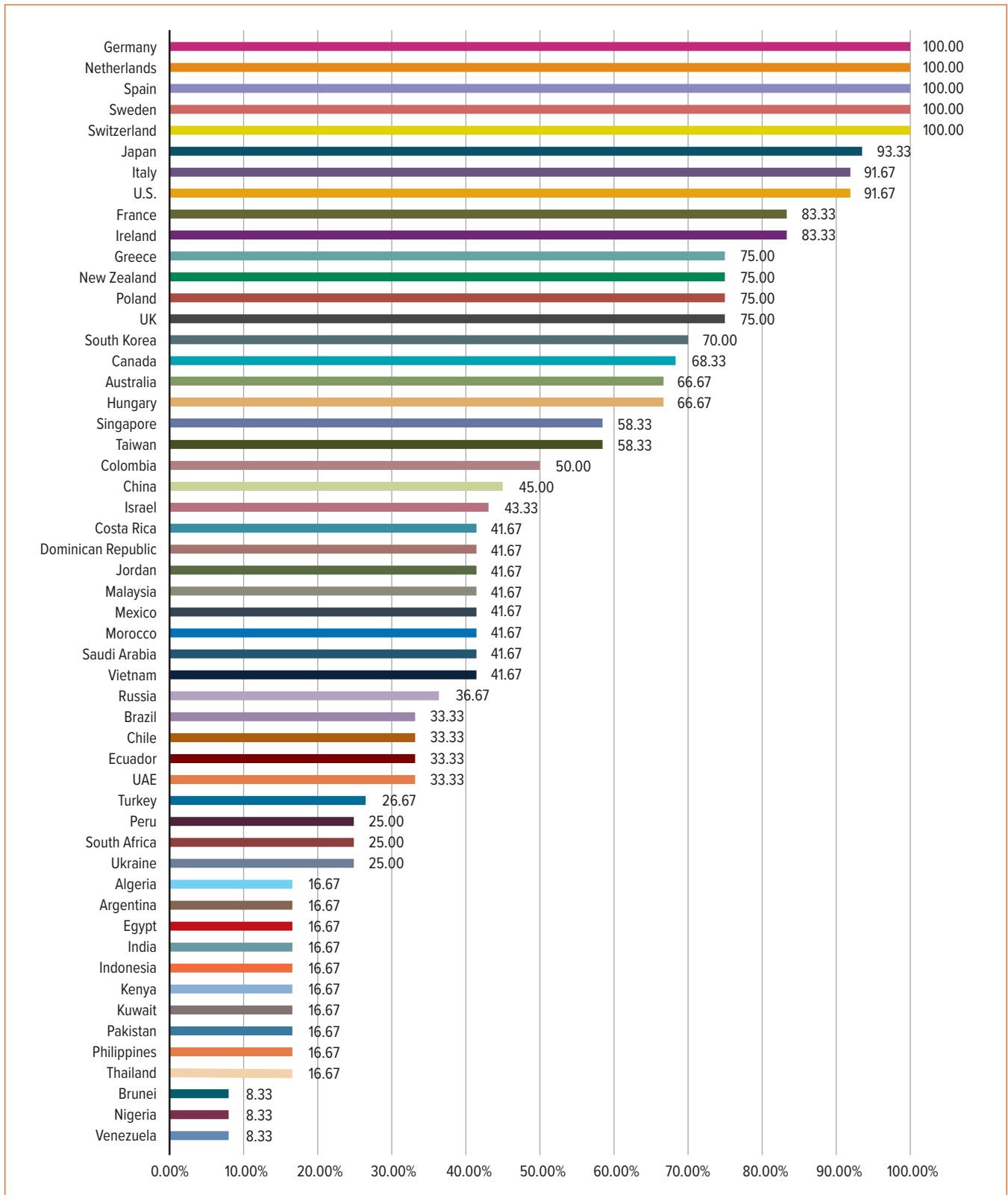
Design rights and IP rights pertaining to industrial design are becoming increasingly important to rights-holders across the world. Statistics from WIPO on total design applications (direct and via the Hague System) between the mid-1990s and today show the number of applications globally growing from less than 200,000 in 1995 to over 1 million in 2018. In the **United States** the number of design patent applications has shown similar growth, increasing from just over 15,000 applications in 1995 to over 45,000 in 2018. The increasing importance of design right protection is also reflected in the sharp increase in goods that infringe design rights. As the global economy becomes more connected, the spread and availability of counterfeit goods is also increasing. In 2016 the OECD estimated that the international trade in counterfeit and pirated goods represented almost half a trillion USD, the equivalent of 2.5% of global trade. Customs and enforcement data from around the world reveal that a large portion of counterfeit goods are designed goods. This includes different types of clothing and apparel, watches, sunglasses, handbags, and similar accessories. While most customs authorities have experience dealing with traditional trademark and copyright enforcement and in many economies offer right-holders the ability to record their rights with national customs authorities with respect to design rights this option is not always available. The EU is one of the few jurisdictions where it is possible to file

a request for customs action in individual Member States as well as all Member States specifying both registered and unregistered design rights as the right to be protected. This is currently not possible in the United States. As has been noted by a growing number of rights-holders, counterfeiters are increasingly becoming more sophisticated often bypassing trademark infringement when importing infringing products into the United States. The U.S. Customs and Border Protection has long provided a global leadership role when it comes to the enforcement of IP rights and fight against counterfeiting. The agency is currently undergoing a wholesale reevaluation of its strategic direction and operations through “The 21st Century Customs Framework” initiative. As the circulation of counterfeit designed goods shows no signs of abating, more customs jurisdictions should examine their procedures and find ways to more actively recognize and incorporate ways of working with rights-holders on enforcing design rights too. The Index will continue to monitor these developments in 2020.

Category 5: Trade Secrets and the Protection of Confidential Information

Figure 8 summarizes the total scores for Category 5. This category measures the strength of the environment for trade secrets and confidential information. For trade secrets the category includes two indicators measuring the availability of civil and criminal sanctions, respectively, in relation to the misappropriation, improper acquisition, use, or disclosure of trade secrets or confidential business information, and the application of this legislation and effective access to these remedies. In addition to the protection of trade secrets, this category also measures the existence of an RDP term of protection. In total, the category consists of three indicators, with a maximum possible score of 3.

Figure 8: Category 5: Trade Secrets and the Protection of Confidential Information, percentage available score



Many economies do not have specific trade secret legislation in place; instead, they rely on laws relating to employment contracts and disclosure of confidential information. In a positive development many economies have recognized this gap, and the protection of trade secrets is on the policy agenda in several contexts. For example, virtually all EU Member States have reformed their respective trade secrets laws to conform with Directive 2016/943, the Trade Secrets Directive. The directive is a positive, and necessary, piece of legislation that sets common minimum standards, a common trade secret definition, and court protective orders across the EU. The protection of trade secrets has also been included in many recent trade agreements, including the EU-Mercosur Association Agreement, USMCA, and CPTPP. Still, gaps in protection remain in many economies for which trade secrets are not adequately defined in relevant laws and regulations and courts have limited experience ruling on cases involving the misappropriation, improper acquisition, use, or disclosure of trade secrets or confidential business information. This gap is especially pronounced for criminal sanctions.

Competition between nations is increasingly becoming economic and technological in nature and blurring the lines between state actors and corporate entities. This is especially the case in economies that have heavy state involvement in the private sector. Under these circumstances, rights-holders that have been the victims of trade secret theft are limited in the type of legal actions they can take. Many economies—including developed OECD members—do not have statutory criminal sanctions in place for the theft and misappropriation of trade secrets. For example, while the Trade Secret Directive sets common minimum standards and a common trade secret definition for all EU Member States, it does not include or cover criminal sanctions. As a result, some Member States, such as **Germany** and **Sweden**, have in place fairly robust criminal sanctions against trade secret theft and misappropriation, while others, such as the **UK**, do not. Indeed, as noted last year, overall most economies

included in the Index perform poorly on this indicator:

- 33 of the 53 economies sampled, or 62%, achieve a score of 0.25 or 0; and
- only 7 economies, or 13% of the sample, achieve a score of 1 with relevant trade secret criminal sanctions in place and evidence of prosecution and enforcement.

Still, despite, there were some positive developments for both criminal and civil laws relating to trade secret theft and misappropriation in 2019.

In **South Korea** new amendments came into force strengthening criminal sanctions. The Unfair Competition Prevention and Trade Secret Protection Act contains criminal sanctions and penalties relating to the theft and misappropriation of trade secrets. The 2019 amendments to Article 18 of the act have strengthened penalties for the theft and misappropriation of trade secrets with prison sentences of up to 15 years and fines of up to KRW1.5 billion (about USD1.3 million).

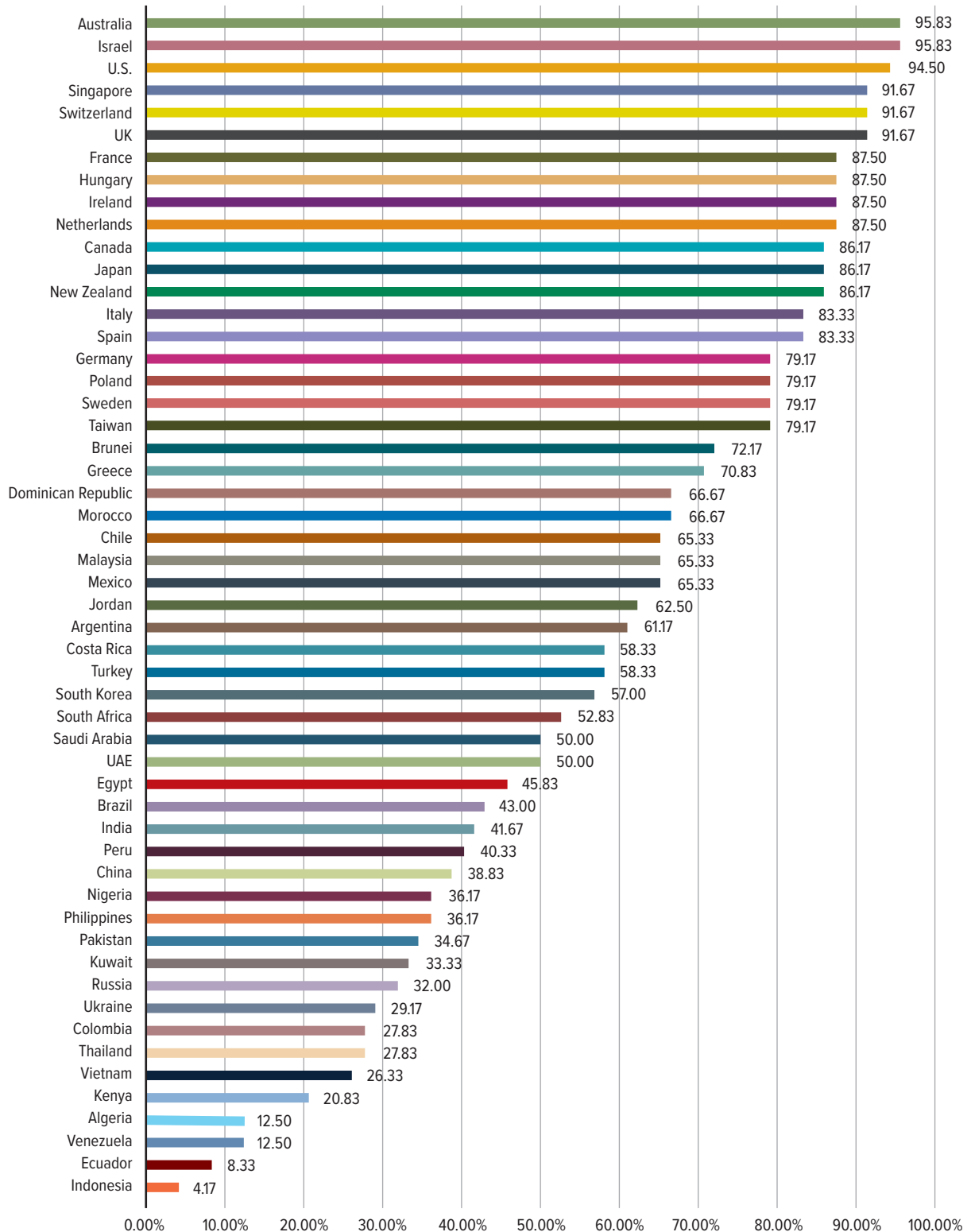
China also introduced changes to its trade secret laws. As noted in past editions of the Index, the protection of trade secrets has long been a challenge in China. Legal protection has been weaker than in other jurisdictions and practical enforcement has been hampered by the relatively low damages awarded. The Anti-Unfair Competition Law added new amendments in 2019. These include several important improvements: a more comprehensive definition of trade secrets; less of an onus on the rights-holder to prove the existence of a “secret,” cyber theft, abetting trade secret theft, and/or infringement; and, finally, an increase in penalties and statutory damages. It remains to be seen the effect these new laws will have on the legal environment and China and on rights-holders’ ability to effectively protect and enforce their rights pertaining to trade secrets and confidential information. Nevertheless, this is a notable improvement to China’s national IP environment and, as a result, its score has increased.

Category 6: Commercialization of IP Assets

Figure 9 summarizes the total scores for Category 6.

This category consists of six indicators, with a maximum possible score of 6. The indicators in this category seek to measure the extent to which a given national IP environment recognizes the value of IP as an asset and encourages the commercialization of IP regardless of its national origins.

Figure 9: Category 6: Commercialization of IP Assets, percentage available score



New technologies can contribute to economic activity only if they are successfully developed into real-life, useful products that can be commercialized in the marketplace. A brilliant invention or technology that sits on the proverbial shelf is unlikely to be economically productive. Technology transfer and licensing are critical mechanisms for commercializing and transferring research from public and governmental bodies to private entities and private-to-private entities for the purpose of developing usable products and commercially available technologies. They also provide a significant and distinct contribution to the economic strength and well-being of the economies in which they take place. For universities and public research organizations, the transfer process enables them to obtain access to commercial research funds, state-of-the-art equipment, and leading-edge technologies while allowing industry to benefit from the extensive knowledge and ingenuity of academic researchers. For less-developed economies, international licensing of technology can provide the basis for local technological development and building a more sophisticated absorptive capacity. Global technology flows and the commercialization of IP assets are thus crucial drivers of innovation. However, licensing and technology transfer relies on a supportive and efficient regulatory environment and IP frameworks that minimize red tape, facilitate market-based partnerships, and uphold the integrity of partnerships. Many governments—in developed and developing economies alike—understand this and dedicate significant resources to enhance innovation and technological development and transfer. Yet, in many respects, economies are failing to provide the necessary regulatory and IP-specific infrastructure to help incentivize and better facilitate domestic and cross-border licensing and technology transfer. In some cases, governments are doing the exact opposite and imposing new and additional hurdles and barriers. One of the most significant barriers that affects and impedes all facets of licensing and technology transfer—domestic and cross-border—is direct government intervention and setting of licensing

terms. Such intervention consists of a centralized, top-down approach that seeks to mandate when and how licensing and technology transfer takes place. These interventions can involve burdensome and costly administrative procedures or legal rules and policies that discriminate against rights-holders. The manner and extent of this intervention will vary from economy to economy, but it often involves the mandatory disclosure and review of all licensing agreements by a government authority. Usually, this review includes the setting of contractual terms (including royalty rates) and, in some cases, licensors are coerced into sharing their technology with local partners. As has been noted in previous editions, many of the economies benchmarked in the Index are introducing policies that make it more difficult to access their respective markets or commercialize IP assets. While such policies continued to be in place in many important markets, including **Algeria, Indonesia, Nigeria, Russia, Thailand, and Turkey**, all make use of and have intensified these efforts over the past few years. However, in a positive development both **China** and the **UAE** have, to some extent, reversed course. China's reform efforts are discussed above in section 4. Rights-holders in the UAE have historically faced barriers to entering the market without partnering with a local entity. As noted in the previous edition of the Index, in September 2018 the UAE government issued a new Foreign Direct Investment Law through Federal Legislative Decree No. 19 of 2018. The law offers the possibility of 100% foreign ownership by granting foreign investors a potential exemption from the requirement of having an Emirati partner that holds a minimum of 51% of a company's shares, established by the Commercial Companies Law. The law contained a "negative" list of sectors excluded from its scope, which included natural resource extraction and related industries, banking, insurance, postal services, telecommunication and other audiovisual services, roads, and transportation. At the time of publication, it was also stated that a separate "positive" list would be published that outlined which parts of the economy would be open to foreign ownership. In 2019 the government published

this positive list that describes the sectors and types of economic activity in which 100% foreign ownership would potentially be allowed. The list comprises over 100 types of economic activity and is divided up across three major areas: agriculture, industry, and services. Each area of activity has different capital and share-holding requirements. Although it allows varying degrees of foreign ownership, the list also contains additional requirements for local employment and technology usage and potential transfer. Each area of economic activity is also subject to local licensing (i.e., in one of the emirates). Given this local control, the permitted levels of investment and equity holdings are likely to differ from one emirate to another. At the time of research, it was not clear how the licensing procedures would work, what the permitted percentages of equity ownership would be in different industries, and to what specific technology transfer requirements (if any) foreign investors would be subject. Nonetheless, the publication of this positive list and the implementation of the Foreign Direct Investment Law are positive steps for the UAE.

Several economies also saw positive developments in R&D and IP-based tax incentives.

As mentioned in previous editions, since 2017 the government of **Singapore** has planned to introduce an OECD BEPS (Base erosion and profit shifting)-compliant IP-specific tax incentive provisionally titled the Intellectual Property Development Incentive (IDI). The IDI functions similarly to a patent or innovation box and provides a lower rate of income taxation (between 5% and 10%) on qualifying income derived from a qualifying IP asset. There had been some uncertainty about when and how the incentive would be made available to inventors in Singapore. Local reports suggest that the IDI is now fully operational and available.

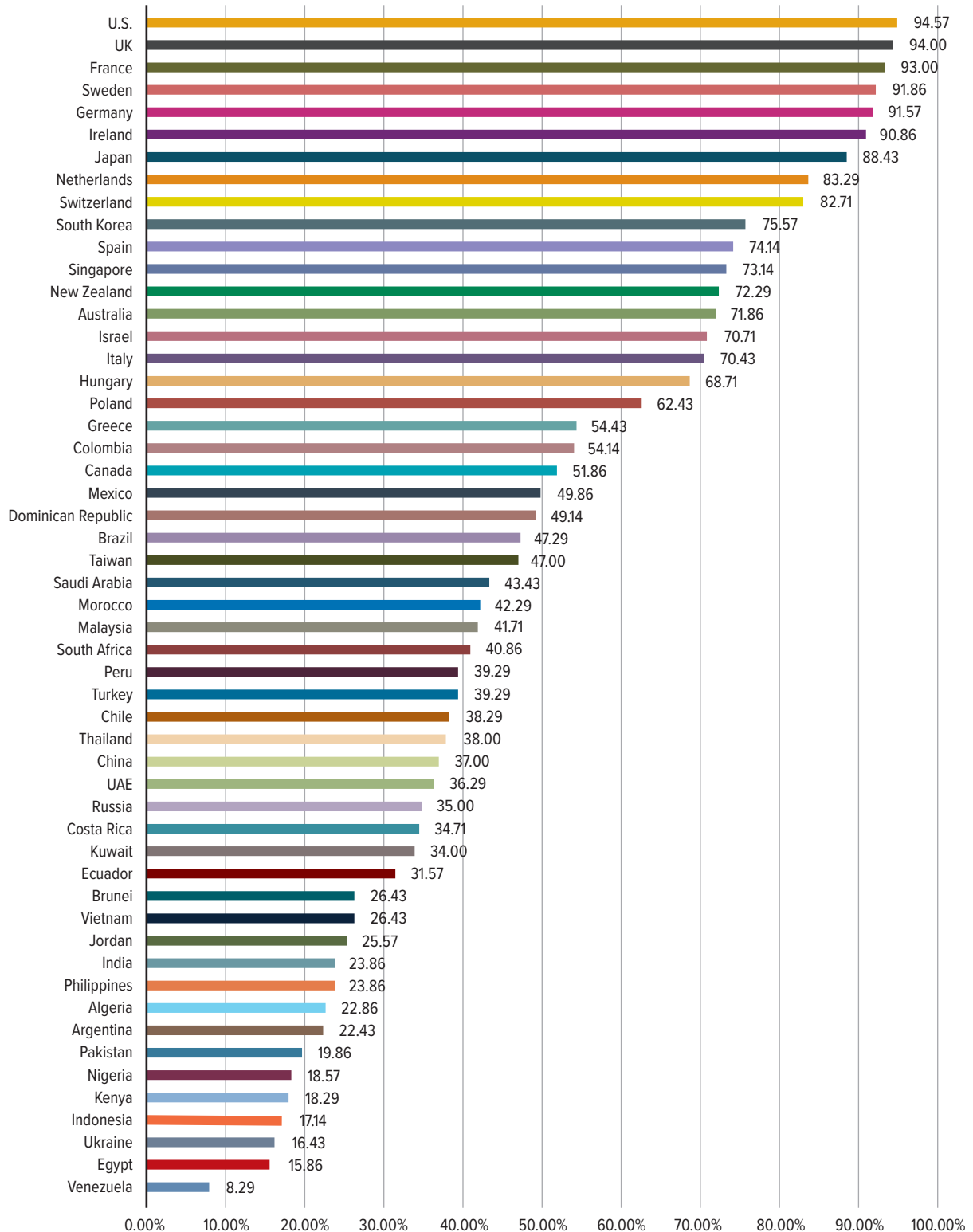
Similarly, over the past year **Switzerland** substantively reformed its laws relating to R&D and IP tax incentives. Until 2019 Swiss tax law provided only limited tax and R&D incentives. There was no general, federal

R&D tax credit available and only a regional patent box in place in the Canton of Nidwalden. In May 2019 this changed with the approval of a comprehensive corporate tax reform package. The reform package, Federal Act on Tax Reform and AVS Financing, includes the introduction of both an R&D super deduction and a patent box regime based on OECD BEPS guidelines. Of note, both the super deduction and patent box apply at the cantonal level. The R&D tax deduction is up to 150% on qualifying expenditure. The patent box provides up to 90% relief on any qualifying income generated from IP-based assets. The new law goes into effect on January 1, 2020.

Category 7: Enforcement

Figure 10 summarizes the total scores for Category 7. This category measures the prevalence of IP rights infringement, the criminal and civil legal procedures available to rights-holders, and the authority of customs officials to carry out border controls and inspections. The category consists of seven indicators, with a maximum possible score of 7.

Figure 10: Category 7: Enforcement, percentage available score



As in years past, a clear majority of the sampled economies in the Index struggle on this category. Only 21 economies (39.62% of the sample) achieve a score of 50% or more on this category. And only 10 economies achieve a score of 75% or more. As with Category 2: Copyrights, Related Rights, and Limitations the average score on this category is one of the weakest on the Index, at 49.45%. Still, despite the overall poor performance on this category, some positive economy-level developments occurred in 2019.

Historically, criminal enforcement against IP infringement has been lacking in **Brazil**. There are long backlogs in the Brazilian justice system and the majority of those arrested on suspicion of criminal IP infringement never face criminal charges or prosecution; charges are either dropped or suspended. There have been isolated areas of success—for example, against physical piracy in São Paulo through the City Free of Piracy Project—but, overall, criminal enforcement has remained a challenge. In 2019 the Brazilian government launched Operation Copyright, a new initiative by the Brazilian Federal Police to tackle copyright piracy. Reports suggest that the police took coordinated action in five Brazilian states, shutting down torrent sites and seizing equipment and suspected goods. Because of this activity, Brazil's score on this category has increased.

In addition to criminal enforcement, there was positive movement with respect to civil enforcement and damages awarded in IP infringement cases in 2019.

For example, in **India** damages awards in IP-infringement cases have historically been quite low. Additionally, the high pendency rate and excessively long backlog (as of 2018 over 30 million civil and criminal cases were pending in India, of which 40% were more than five years old) have effectively meant that rights-holders have limited and, in many cases, no realistic ability to recover any damages suffered owing to IP infringement. As noted in previous editions of the

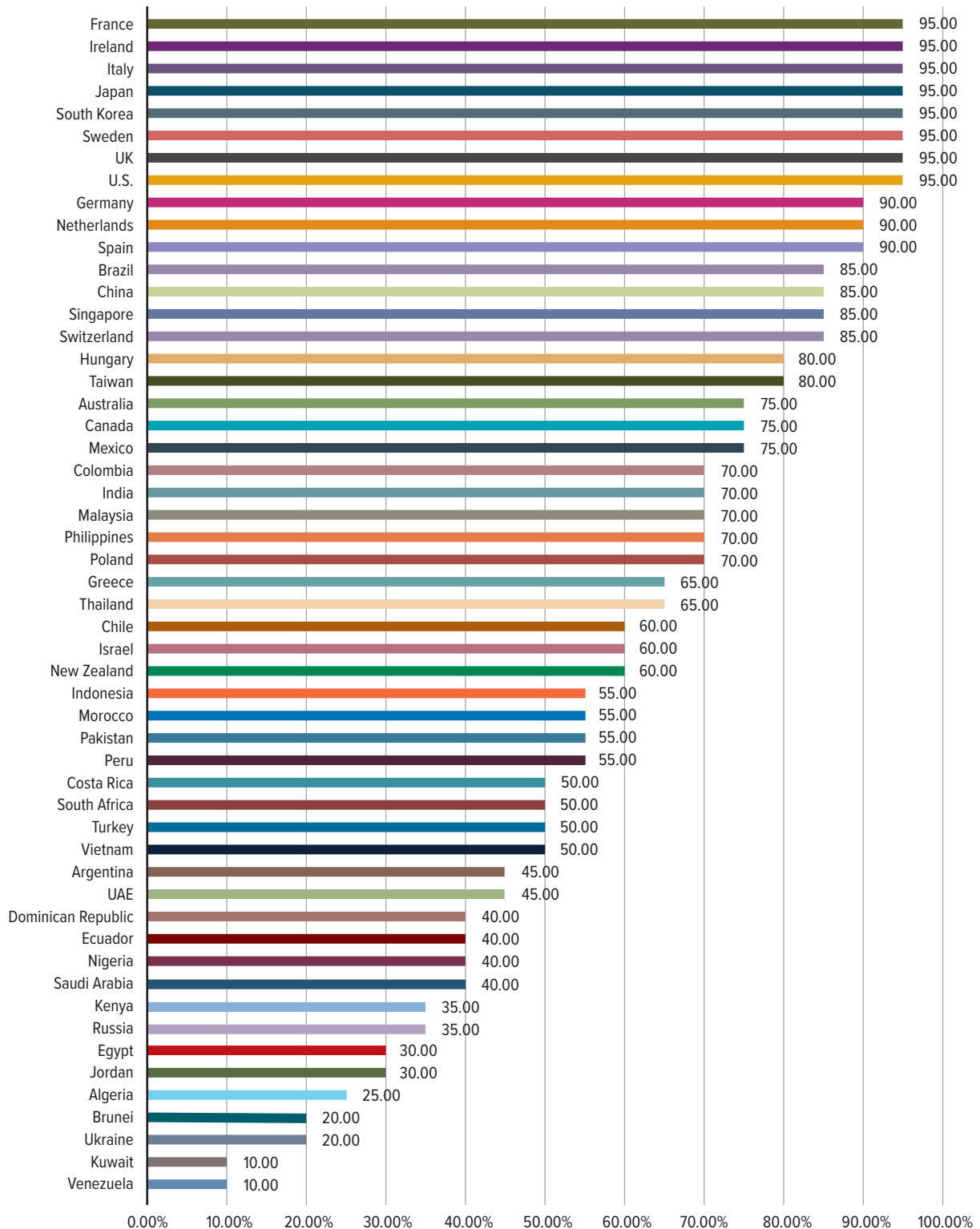
Index, the government of India has long recognized this challenge, particularly its negative impact on business disputes and IP rights-holders. Several policies have been introduced (including new laws) that include an increased emphasis on solving disputes quickly and efficiently, streamlining commercial disputes, and ensuring a relevant level of expertise at the presiding court level. Two important verdicts in two unrelated cases of IP infringement in 2018-19 could potentially raise the bar for damages awarded. In both cases—*Glenmark Pharmaceuticals Ltd. v. Curetech Skincare and Anr.* and *Nippon Steel & Sumitomo Metal Corporation v. Kishor D Jain & Anr.*—the court found blatant violation of the plaintiff's trademarks. In the former, damages of INR 1.5 crore (about USD210,000) were awarded; in the latter, INR 5 crore (USD695,000). By Indian standards these are substantive sums and may act as an important marker and deterrent for future infringement.

Similarly, **South Korea** introduced important changes to the manner in which damages can be awarded. South Korean laws provide a relatively strong framework for enforcing IP rights, in terms of both civil remedies and criminal penalties for infringement. These include statutory damages and various mechanisms for determining adequate damages, although actual sums awarded in some cases can be relatively small (for instance, in *Apple Inc. v. Samsung Electronics Co, Ltd.* of 2012). Amendments to the Patent Act and Unfair Competition Prevention and Trade Secret Protection Act (passed at the end of 2018) came into force during 2019 and have strengthened the basis for which damages can be awarded for patent infringement and trade secret theft. The new amendments provide for the possibility of awarding punitive damages.

Category 8: Systemic Efficiency

Figure 11 summarizes the total scores for Category 8. One new indicator has been added to this category this year: Indicator 43 (IP-intensive industries, national economic impact analysis). It seeks to measure the extent to which the relevant authorities in a given economy seek to map and measure the economic impact and importance of IP-intensive industries to their national economies. Whatever the stage of development, IP-intensive industries are of increasing importance to all economies around the world. The first step in recognizing their importance is to actively seek to identify, categorize, and measure the size and economic impact of these industries domestically. This category now consists of five indicators, with a maximum possible score of 5.

Figure 11: Category 8: Systemic Efficiency, percentage available score



As in the previous edition, most sampled economies do quite well on this category. Only 15 economies fail to achieve a score of 50% or above. As such, it is worth recognizing how many economies are attempting to put in place a strong support system for their national IP environments. Indeed, many economies perform better on this category than in other parts of the Index, with an average category score of 62.08%. These positive efforts continued in 2019.

In **Saudi Arabia** the new IP authority—SAIP—launched a host of ambitious reforms and programs that recognize the value of IP and seek to build the systemic capacities of the Saudi IP system. Specifically, SAIP introduced new policies on public consultations and educational campaigns and awareness raising. There is no formal or statutory requirement that Saudi authorities offer public consultations on proposed legislative and regulatory changes. As the U.S. Department of State has noted in the past, “Stakeholder consultation is inconsistent. ... Some Saudi organizations are scrupulous about consulting businesses affected by the regulatory process, while others tend to issue regulations with no consultation at all.” Public consultations do take place, but they vary from ministry to ministry and from topic to topic. For example, in 2017 SAIP held a public consultation on a draft value added tax law. More broadly, the Vision 2030 document emphasized the importance of engagement with the private sector, stating, “We will deepen communication channels between government agencies on one hand and citizens and the private sector on the other.” There have been more recent examples of consultation efforts, including by the National Centre for Privatization, which in 2018 published a draft of the Private Sector Participation Law. The law was open for comments and public consultation. Regarding consultations on changes in IP policy specifically, in a positive move the SAIP issued calls for public comments on several pieces of draft legislation and changes to Saudi IP policy in 2018-19. This included calls for comments on Saudi accession to several international IP treaties as well as

a call for comments on changes to the Copyright Law. The SAIP also announced the holding of a technical workshop with the publishing industry to collect more information and input on potential changes to the Copyright Law. This is a very positive development; regular consultations with all relevant stakeholders is a prerequisite for developing a world-class national IP environment in line with the highest international standards and practices. Historically, awareness-raising activities in Saudi Arabia have primarily taken place through the King Abdulaziz City for Science and Technology, including the Saudi IP Forum that have focused on patents and technology transfer since the early 2010s. There have been examples of past awareness-raising efforts on other IP rights or themes through various Saudi government agencies. For example, there have been workshops and conferences held on copyright infringement and software piracy (see the 2012 “General Administration Copyright Workshop” in 2013 and the “Annual Government Officials Conference on Copyright Protection in Arab Countries” held in Riyadh). But overall there has been a limited amount of activity in relation to other IP themes, such as counterfeiting or the value of IP and knowledge-based assets to the Saudi economy. This changed in 2019. The SAIP launched several important and high-profile awareness-raising campaigns aimed at the general public. These include a general cross-sectoral campaign titled “I Respect Intellectual Property Rights”; the copyright-related campaigns “Own Your Drawing” and “Acquire Your Idea”; and a special initiative targeting IP and sports, “Reach for Gold: IP and Sports,” which includes a partnership with the Saudi soccer league. The SAIP also announced the launch of the Intellectual Property Pioneers’ Program. This program targets university graduates and provides technical training and valuable expertise in IP-related fields. Public outreach campaigns such as these—if sustained over time—can have a real and positive impact on the national consciousness and its respect for and appreciation of the value that IP rights bring to society.

Similarly, in **Brazil** important changes were introduced to improve the institutional capacity of the national IP system. In 2019 the government created a new coordinating body with a mandate from President Bolsonaro to coordinate and oversee all issues relating to IP policy. Decree 9,931 established the Interministerial Group on Intellectual Property (*Grupo Interministerial de Propriedade Intelectual* [GIPI]). The group consists of representatives from all major agencies within the government, including the Ministry of Justice, and is chaired by the Ministry of Economy. The decree states that the purpose of the GIPI is to “promote the cohesion of actions, programs, projects and initiatives of public bodies and entities with competences related to the intellectual property theme.” Article 1 (VI) gives the group the power to hold consultations with and include representatives from the private sector and civil society in the policymaking process. Given the stark challenges facing rights-holders in Brazil regarding the enforcement environment, the creation of the GIPI should lead to a renewed focus on coordination of enforcement activities within the Brazilian government. Historically, antipiracy activities have been coordinated by the National Council to Combat Piracy and Crimes Against Intellectual Property (CNCP), established in 2005. The council includes representatives from both the public and private sectors. However, industry reports suggest that the work of the CNCP has been virtually suspended since 2012.

With regards to Indicator 43 (IP-intensive industries, national economic impact analysis), several economies have in place programs that seek to map and measure the economic impact and importance of IP-intensive industries to their national economies.

For example, the Korea Institute of Intellectual Property (a subsidiary of the Korea Intellectual Property Office [KIIP]) released a comprehensive assessment of the contribution of Korean IP-intensive industries to national GDP, employment, and R&D investment, the *Economic Contribution Analysis of IP-Intensive Industry*. Based

on 2015 statistics collected by the national statistics agency the report finds that IP-intensive industries are a major contributor to national output, employment, and R&D spending. The report estimated that, in 2015, IP-intensive industries constituted 43.1% of GDP, employed over 6 million people (29.1% of the entire workforce), and were responsible for close to 80% of R&D investment in Korea. All major indicators studied saw substantive increases compared to 2010 national statistics. This was the first study of its kind released by the KIIP. This is a positive development and the KIIP should be congratulated for putting the resources and time into understanding and measuring the economic impact IP rights have on the Korean economy and economic output.

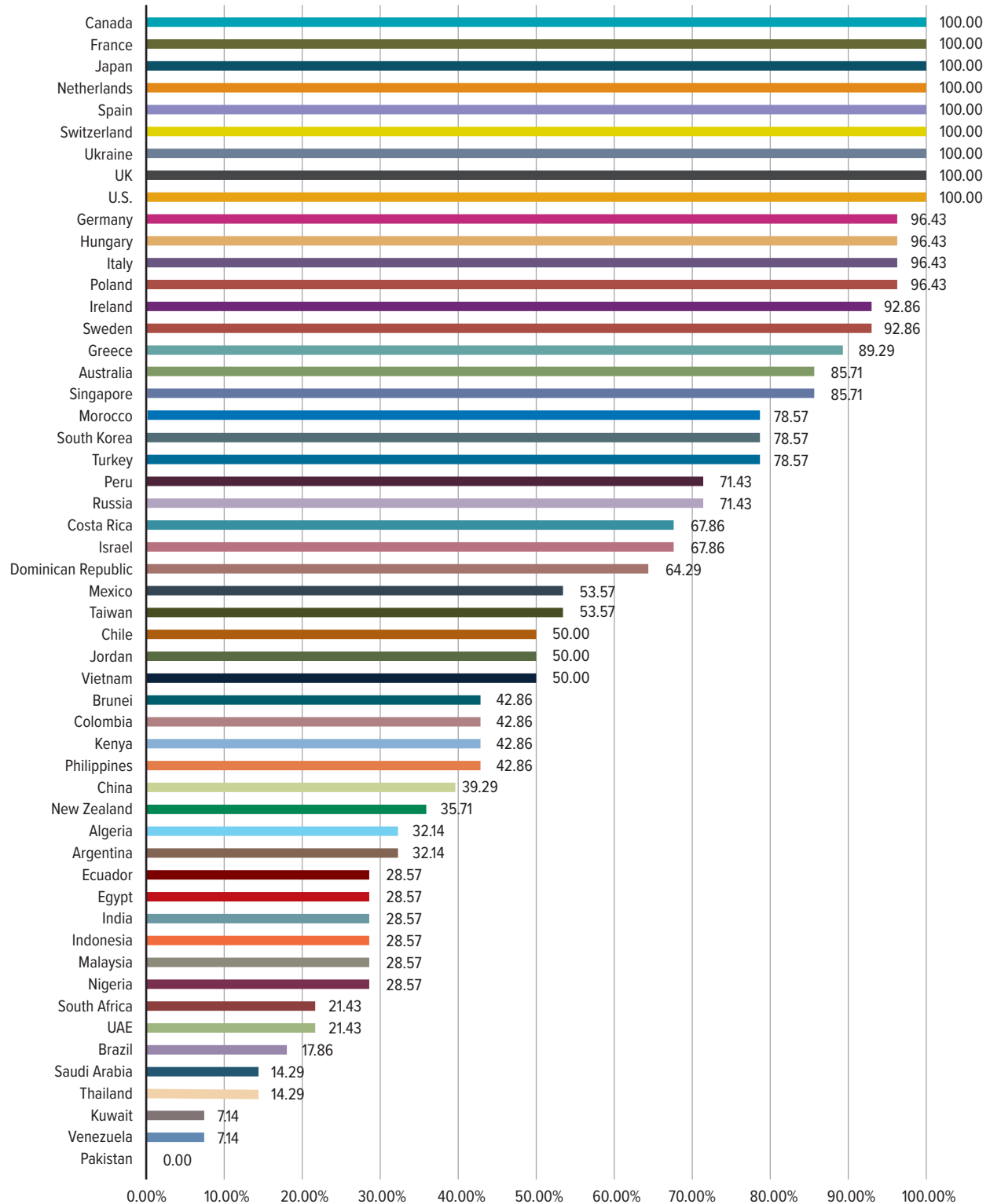
Similarly, as, at the time of research, a Member State of the European Union and contracting party to the European Patent Convention, the **UK** also takes part in the multitude of research efforts conducted by European institutions. A whole swathe of European institutions study the economic impact of IP-intensive industries in the EU and Europe. Major institutions that publish studies and research on various aspects of the economics of IP-intensive industries include the EPO, EUIPO, EUROSTAT, and the European Commission. The latest such research is the IPR-intensive industries and economic performance in the European Union data published by the EUIPO and EPO in 2019. This study found that IP-intensive industries contributed an estimated 42.6% of British GDP, on average, in the time period 2014-16. Similarly, with respect to employment an estimated 28.1% of the British labor force worked in IP-intensive industries. The UK IPO regularly produces research on IP-intensive industries and their economic impact. Under section 21 of the 2014 Intellectual Property Act the agency is statutorily obliged to produce regular updates to Parliament on the extent to which the agency’s activities has “contributed to the promotion of innovation and of economic growth” and “legislation relating to intellectual property has been effective in facilitating innovation and economic growth.” These reports, *Promoting Innovation and*

Growth: The Intellectual Property Office at Work, provide a good overview of the importance intangible assets and IP-intensive industries play in the British economy. Furthermore, the UK IPO regularly commissions and publishes a range of free-standing research reports on the positive relationship between IP rights and economic activity. This includes, for instance, the 2016 report *UK Intangible Investment and Growth: New measures of UK investment in knowledge assets and intellectual property rights*. The UK also plans to produce a study akin to the EPO and EUIPO's research. In the 2018-19 *Promoting Innovation and Growth* report, the UK IPO stated that they are "currently working on a bespoke set of estimates on IP intensities across sectors using UK specific data."

Category 9: Membership and Ratification of International Treaties

Figure 12 summarizes the total scores for Category 9. This category measures whether an economy is (1) a signatory of and (2) has ratified/acceded to international treaties on the protection of IP. Three new indicators, covering five new treaties, have been added to this category. The addition of these treaties doubles the number of treaties included in the Index. The category now consists of seven indicators, with a maximum possible score of 7.

Figure 12: Category 9: Membership and Ratification of International Treaties, percentage available score



Being a contracting party to key international IP treaties is a reflection of a given economy's broader participation in the international IP community and embrace of the highest IP standards. Most economies benchmarked in the Index are members of one or more of the treaties included in the Index.

Economies are increasingly signing up to international treaties. For example, **Canada** has seen a dramatic improvement in its performance on this category. This is in part due to a dedicated commitment from the Canadian Government to join several major IP treaties over the past half-decade as well as the addition of new treaties to the Index. In the first edition of the Index published in 2012, Canada achieved a score of 1 out of a total available score of 5 (20%). In this year's edition of the Index, Canada achieves a score of 7 out of a possible 7 (100%). In 2019 Canada acceded to three international treaties included in the Index: the Singapore Treaty on the Law of Trademarks; the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; and the Patent Law Treaty. This is a remarkable achievement and the Canadian Government should be congratulated on this improvement.

Similarly, **Egypt's** overall score on this category has improved substantially, rising from 0 to 2 as a result of the increased number of international treaties included in the Index. Egypt is a contracting party to the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; the Patent Cooperation Treaty; and the Hague Agreement Concerning the International Registration of Industrial Designs. Egypt is not contracting party to: the WIPO Internet Treaties; the Singapore Treaty on the Law on Trademarks; the Patent Law Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991 (at the time of research Egypt remained in the application process); or the Convention on Cybercrime. Finally, Egypt is a contracting party to the African Continental Free Trade Area, signed by 44 African countries in March 2018. The agreement holds

the potential to fundamentally revolutionize economic activity in Africa by reducing barriers to trade and economic interaction across the entire continent. Parts of the Free Trade Area (Phase I) came into force in June 2019 and is now operational in a handful of economies including Egypt, which acceded to the agreement in May 2019. Reports suggest that Phase II discussions (which include IP-related negotiations) are set to begin soon and potentially to be concluded in 2020.

6. ECONOMY OVERVIEWS

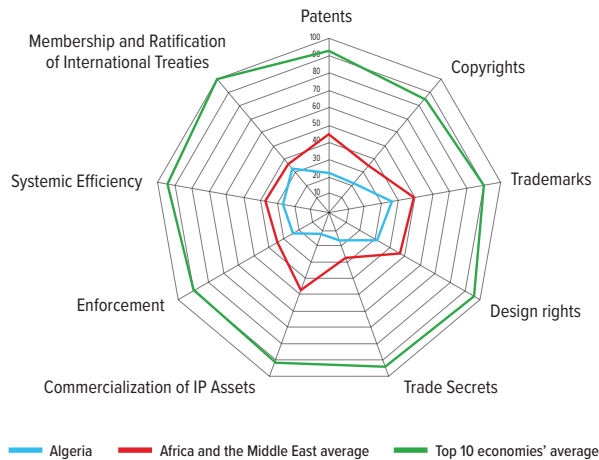
Introduction

This section provides an overview and analysis of each individual economy's score on all 50 indicators.

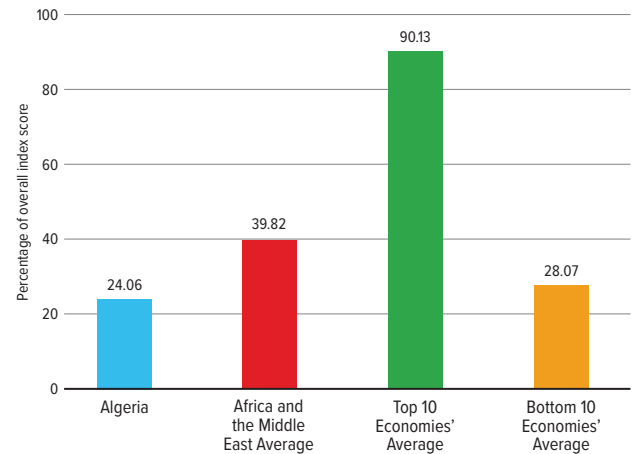
In addition to the total score and overall rank vis-à-vis the other economies included in the Index, each economy overview includes two figures. The first figure displays each economy's performance relative to the top 10 performers in each category of the Index. The second figure displays each economy's overall score compared with the regional average for that particular economy and the top- and bottom-performing economies. Specific challenges, debates, and issues relating to the most important recent developments under each category are discussed in more detail in a separate subsection titled "Spotlight on the National IP Environment."

ALGERIA RANK 52/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Basic framework for IP protection in place
- ✓ Contracting party to WIPO Internet Treaties, Patent Cooperation Treaty, Patent Law Treaty, and Madrid Protocol
- ✓ Plant variety protection in place

KEY AREAS OF WEAKNESS

- ✗ Difficult localization policies in place with import substitution bans and local ownership requirements
- ✗ Weak patenting environment with basic rights missing
- ✗ Major holes in copyright framework—limited coverage and applicability of existing framework to online environment
- ✗ High piracy rates
- ✗ Not a WTO member or TRIPS signatory

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations	2.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
1. Patent term of protection	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.00
2. Patentability requirements	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.50
3. Patentability of computer-implemented inventions	0.00	15. Digital rights management legislation	0.00
4. Plant variety protection, term of protection	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	Category 3: Trademarks, Related Rights, and Limitations	1.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	0.00	18. Protection of well-known marks	0.25
8. Membership of the Patent Prosecution Highway (PPH)	0.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
9. Patent opposition	0.00	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.00
Category 2: Copyrights, Related Rights, and Limitations	1.53	Category 4: Design Rights, Related Rights, and Limitations	0.65
10. Copyright (and related rights) term of protection	0.53	21. Industrial design term of protection	0.40
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	1.25
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.00
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	0.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	0.00	43. IP-intensive industries, national economic impact analysis	0.00
27. Barriers to technology transfer	0.00	Category 9: Membership and Ratification of International Treaties	2.25
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.25	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.25	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.60	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.42	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.18	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.25		
TOTAL 12.03			

Spotlight on the National IP Environment

Past Editions Versus Current Score

Algeria's overall score has increased from 22.84% (10.28 out of 45) in the seventh edition of the Index to 24.06% (12.03 out of 50) in the eighth edition. This score drop reflects a mixed performance on many of the new indicators.

Area of Note

For Algeria, 2019 was a year of political upheaval and change. In April, long-serving President Abdelaziz Bouteflika stepped down after months of public protests. A general election scheduled for July did not take place. Instead, it was postponed until December 2019, when former Prime Minister Abdelmadjid Tebboune won the first round of the presidential election. Regarding Algerian economic and regulatory policy, reports suggest some discussions have taken place within the caretaker government about fundamental changes, including opening the economy and reducing barriers to foreign investment and ownership. However, at the time of research no fundamental economic or regulatory reforms had been introduced.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Article 38 of Law No. 05-03, February 6, 2005, relating to seeds, plants, and the protection of plant varieties, provides a term of protection of 25 years for trees and vines and 20 years for all other plant varieties.

Systemic Efficiency

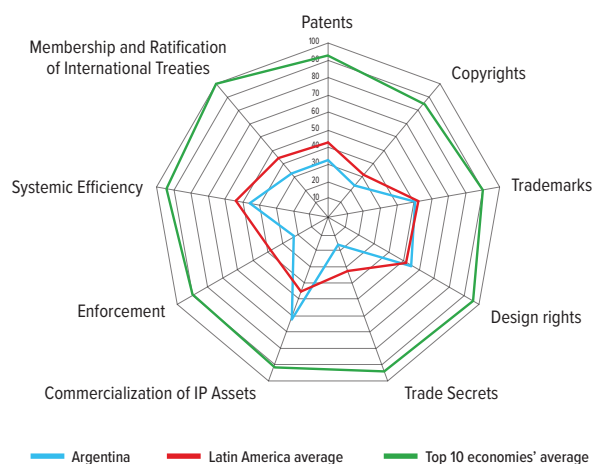
43. IP-intensive industries, national economic impact analysis: The Algerian government does not have in place a systematic program examining or measuring the national economic impact of IP-intensive industries. The Ministry of Industry and Mines has in the past published some ad hoc studies on high-tech sectoral performance and the importance of these sectors to national economic development. This includes, for instance, a sectoral review of the pharmaceutical industry in 2011. However, this report did not posit or seek to examine the link between IP rights, which enable this industry to thrive and develop, and rates of economic activity.

Membership and Ratification of International Treaties

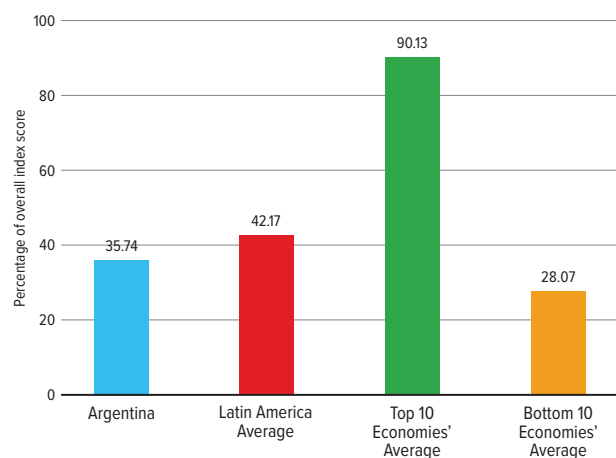
Algeria scores relatively low in its participation in and ratification of international treaties. Algeria is a contracting party to the WIPO Internet Treaties, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, and the Patent Cooperation Treaty; it has signed, but not ratified, the Patent Law Treaty. Algeria is not a contracting party to the Singapore Treaty on the Law of Trademarks; the International Convention for the Protection of New Varieties of Plants, act of 1991; the Convention on Cybercrime, 2001; or the Hague Agreement Concerning the International Registration of Industrial Designs. Algeria has not concluded a post-TRIPS FTA with substantial IP provisions. Algeria is currently not a member of the World Trade Organization and not a signatory of the TRIPS agreement. Algeria is a contracting party to the African Continental Free Trade Area, signed by 44 African nations in March 2018. At the time of research, Algeria had not ratified or acceded to the treaty. The agreement could fundamentally revolutionize economic activity in Africa by reducing barriers to trade and economic interaction across the entire continent. Parts of the Free Trade Area (Phase I) came into force in June 2019 and are now operational in a handful of economies, including Egypt and South Africa. Reports suggest that Phase II discussions (which include IP-related negotiations) are set to begin soon and potentially conclude in 2020.

ARGENTINA RANK 44/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Basic framework for IP protection
- ✓ Pronounced efforts over the past few years to strengthen international cooperation on IP, including through PPHs and increased technical cooperation with the EPO
- ✓ Ongoing streamlining of administrative and enforcement bodies
- ✓ Draft Penal Code would strengthen criminal sanctions relating to IP infringement

KEY AREAS OF WEAKNESS

- ✗ Key life sciences IP rights missing
- ✗ Biopharmaceutical patentability standards remain outside international standards
- ✗ Gaps in legal framework for enforcing copyright online, with proposed laws not addressing fundamental deficiencies
- ✗ Persistently high rates of piracy, including physical counterfeiting
- ✗ Limited participation in international treaties—has not acceded to the Patent Cooperation Treaty

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		2.90	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.50
2. Patentability requirements	0.25	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	0.90	15. Digital rights management legislation	0.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	2.00	
8. Membership of the Patent Prosecution Highway (PPH)	0.50	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.00	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
1.63		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.63	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	1.10	
		21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	2.25
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.25
Category 6: Commercialization of IP Assets	3.67	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	2.25
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.25
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.57	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.24	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.33	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.50		
TOTAL: 17.87			

Spotlight on the National IP Environment

Past Editions Versus Current Score

Argentina's overall score has increased from 33.24% (14.96 out of 45) in the seventh edition of the Index to 35.74% (17.87 out of 50) in the eighth edition. This reflects a mixed performance on the new indicators added.

Patents, Related Rights, and Limitations

2. Patentability requirements; and 8. Membership of the Patent Prosecution Highway: As mentioned in previous editions of the Index, over the past few years the Argentinean Patent Office, *Instituto Nacional de La Propiedad Industrial* (INPI), has sought to address some of the long-standing administrative challenges with registering IP rights in Argentina, seeking to modernize and align some of the office's standards with those of other major IP offices. In 2019 this continued with the implementation of Decree 403/2019, which seeks to expedite the review process for patent and utility model applications. A substantial backlog of patent applications has existed for several years, with the average time to grant for pharmaceutical, chemical,

and biotech patents reportedly close to a decade. The INPI further enhanced its cooperation with the EPO through the signing of a Memorandum of Understanding between the two offices seeking to establish a "Reinforced Partnership." The goal of this partnership is to improve existing capacity and office productivity. The two IP offices will also cooperate in new fields of patenting, including artificial intelligence, the fourth industrial revolution, and the internet of things. In a further positive move, the INPI signed a new PPH agreement with the Chinese IP office, the State Intellectual Property Office of the People's Republic of China. This follows on from existing PPHs with the USPTO and the JPO. Nevertheless, patentability restrictions discussed in previous editions of the Index remain a serious and long-standing issue in Argentina, in particular concerning the patentability of pharmaceutical products and processes. As of the time of research, innovators face difficulty securing a number of types of pharmaceutical patents, including compositions, dosages, salts, esters, ethers, polymorphs and analogous processes, pro-drugs, and Markush-type patent claims.

Enforcement

36. Criminal standards: As has been noted in previous editions of the Index, there is limited criminal enforcement against IP infringement in Argentina. Existing penalties are largely nondeterrent and prosecution infrequently takes place. Criminal courts have been directing some focus to physical and online counterfeiting and piracy, but overall Argentina's criminal enforcement regime suffers from nondeterrent or laggard judgments, with courts often assigning the minimum penalties provided for in the law, not including penalties at all in the judgment, or postponing the judgment. On a day-to-day operational level, the notorious *La Salada* market in Buenos Aires remains operational and is a major trading point for counterfeit goods and pirated content in the region. Online, Cuevana and associated links continue to offer pirated movies and TV shows despite the government's indictment of a key participant in late 2017. Legislative efforts to combat these issues have been mixed. On the one hand, the Argentinean government in 2019 proposed a new Penal Code to address enforcement inefficiencies, while the Congress has, since 2017, debated legislative proposals on enforcement and safe harbors that would endanger further enforcement in the country. Presented by the Minister of Justice and Human Rights Germán Garavano to the Argentine Senate in June 2019, the Penal Code bill is the result of a long consultation process involving a range of stakeholders. Regarding IP rights, the draft code would provide more standardized criminal sanctions for offenses against most major IP rights. Passage of the bill would be a positive step for Argentina and result in a score increase on this indicator. At the time of research, both draft bills were still being debated and no new laws have been passed.

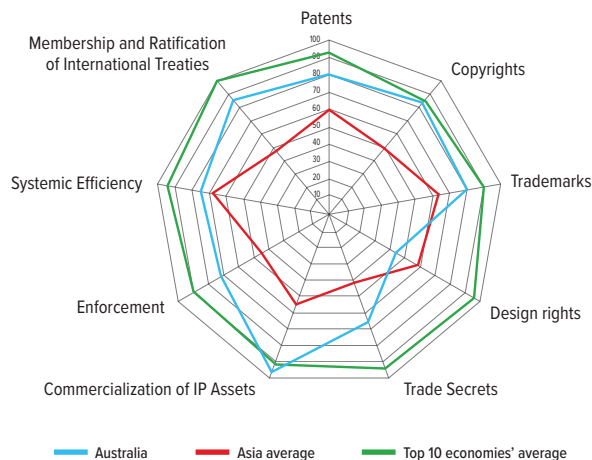
Membership and Ratification of International Treaties

Argentina has a low score for its participation in and ratification of international treaties. Argentina has signed and ratified the WIPO Internet Treaties and is a contracting party to the Convention on Cybercrime, 2001. It remains one of the few economies that has signed, but not ratified, the Patent Cooperation Treaty, which now has 153 contracting parties. Argentina is not a contracting party to the Singapore Treaty on the Law on Trademarks; the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; the Patent Law Treaty;

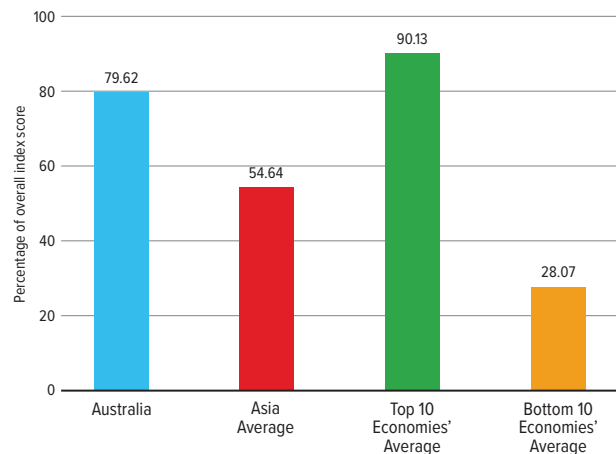
the International Convention for the Protection of New Varieties of Plants, act of 1991 (Argentina is a contracting party to the 1978 Convention); or the Hague Agreement Concerning the International Registration of Industrial Designs. As part of the regional trade bloc Mercosur, in 2019 Argentina concluded negotiations with the EU on a free trade agreement between the two trading blocs. The agreement is now subject to final legal revisions and then will be subject to ratification by all parties. While technically a post-TRIPS FTA that does contain a separate IP chapter, overall the IP provisions of the EU-Mercosur FTA are notably weaker compared with current international standards and other post-TRIPS agreements concluded by the EU. The treaty does not include any substantive provisions regarding patent rights. Copyright provisions are relatively limited. Similarly, border measures are weak, with parties largely exempt from taking effective border measures; the treaty does not require customs officials to be provided with *ex officio* authority to act against suspected goods. Moreover, in-transit goods are explicitly exempt from any action under Article X.58(2). There is clear language on civil and administrative enforcement (including the need for an established calculation for damages), but there are no corresponding provisions relating to criminal enforcement. Looking at IP-intensive sectors specifically, there are no provisions relating to the biopharmaceutical sector. This stands out compared with previous EU post-TRIPS FTAs such as the EU-ANDEAN Community FTA, which included a requirement for a five-year RDP term. Trade secret provisions are relatively strong and include clear language and definitions of trade secrets and infringement. Nevertheless, this agreement is notably weaker than preceding EU FTAs, including recent agreements like the EU-Japan Economic Partnership Agreement, the EU-ANDEAN Community FTA, or the Canada-European Union Comprehensive Economic and Trade Agreement (CETA).

AUSTRALIA RANK 14/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Global leader on copyright enforcement in the online space
- ✓ Established system of injunctive relief permitting the disabling of foreign-hosted infringing websites
- ✓ National Security Legislation Amendment (Espionage and Foreign Interference) 2018 introduces stiff penalties for industrial espionage on behalf of a foreign state entity
- ✓ No administrative or regulatory burdens in place hindering licensing activity

KEY AREAS OF WEAKNESS

- ✗ Pre-grant patent opposition system introduces significant delays to patent grants
- ✗ Gaps in enforcement, including for life sciences patents
- ✗ Australian linkage regime deficient both substantively and procedurally—creates uncertainty for biopharmaceutical innovators
- ✗ Not a contracting party to the Hague Agreement

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		7.25	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	0.75	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	1.00
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.75
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	3.25	
8. Membership of the Patent Prosecution Highway (PPH)	1.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.00	18. Protection of well-known marks	1.00
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
5.88		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.63	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	1.00	0.90	
		21. Industrial design term of protection	0.40

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.50
Category 5: Trade Secrets and the Protection of Confidential Information	2.00	Category 8: Systemic Efficiency	3.75
23. Protection of trade secrets (civil remedies)	0.75	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.75	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	5.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	6.00
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	5.03	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.71	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.82	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.75		
36. Criminal standards including minimum imprisonment and minimum fines	0.75		
37. Effective border measures	0.50		
TOTAL: 39.81			

Spotlight on the National IP Environment

Past Editions Versus Current Score

Australia's overall score has decreased from 80.13% (36.06 out of 45) of the total possible score in the seventh edition of the Index to 79.62% (39.81 out of 50) in the eighth edition. This reflects Australia's overall mixed performance on the new indicators added to the Index.

Enforcement; and Membership and Ratification of International Treaties

37. Effective border measures; and 50. Post-TRIPS FTA:

As has been noted in previous editions of the Index, unlike most other developed high-income OECD economies, the Australian Border Force (ABF) does not have the authority to take *ex officio* action against goods suspected of infringing a copyright or trademark. Specifically, under the Copyright and Trade Marks Acts, customs officials are not given *ex officio* authority to act against goods they suspect of infringement; instead, a rights-holder must first submit a notice objecting to the importation of infringing goods (Notice of Objection) before an official

may detain or suspend the goods. With a notice from the rights-holder, officials are authorized to seize a certain type of transshipped goods in transit. Transshipped goods remain under customs control while being shipped through Australia to other destinations and are therefore subject to seizure if a notice of objection is in place and the rights-holder can demonstrate that the goods are infringing. However, other types of in-transit goods are not officially subject to seizure. Australia is a contracting party to the CPTPP and is one of the handful of economies that has ratified the treaty. As has been noted in previous edition of the Index, under the terms of the new agreement numerous critical provisions of the original TPP have been suspended, including for patentable subject matter; biopharmaceutical-specific IP rights, such as regulatory data protection; copyright protection and enforcement; and protections relating to satellite and cable signals. The result is that the CPTPP does not conform to the modern standards of other post-TRIPS international trade agreements. Nevertheless, the text of the CPTPP does retain some important aspects

of the TPP's IP chapter (it should be noted that some of these are still unclear including, for example, provisions relating to the enforcement of biopharmaceutical patents), including the following key provisions and requirements on contracting parties:

- I The membership of international treaties (Article 18.7, International Agreements)
- II Mechanisms for (i) notification to a patentee and resolution of patent disputes, or (ii) preclusion of marketing approval in conjunction with the approval of follow-on products relaying on submitted biopharmaceutical test data as part of a market authorization review process (Article 18.53, Measures Relating to the Marketing of Certain Pharmaceutical Products)
- III Design rights (Article 18.55, Protection of Industrial Design)
- IV Copyright (Article 18.64, Application of Article 18 of the Berne Convention and Article 14.6 of the TRIPS agreement; and Article 18.65, Limitations and Exceptions)
- IV P rights enforcement section (Articles 18.71-18.78, including Article 18.76, Special Requirements Related to Border Measures, which requires providing national customs officials with *ex officio* powers to seize and detain suspected goods, including goods in transit)
- VI Trade secrets (Article 18.78, Trade Secrets)
- VII Government use of licensed software (Article 18.80, Government Use of Software)

The CPTPP provides a clear and unambiguous requirement that border officials in all contracting parties have the right to take *ex officio* action against suspected infringing goods. This includes goods in transit. Article 18.76(5) states, "Each Party shall provide that its competent authorities may initiate border measures *ex officio* with respect to goods under customs control that are: (a) imported; (b) destined for export; or (c) in transit." In late 2018 Australia

introduced and passed implementing legislation amending its customs law, the Customs Amendment (Comprehensive and Progressive Agreement for Trans-Pacific Partnership Implementation) Bill 2018. This law does not include any provisions relating to *ex officio* powers or goods in transit. At the time of research, neither the ABF nor Australia's IP office, IP Australia, had provided any public indication that the Australian customs regime had changed or would be changing. In the current iteration of the fact sheet "Protecting Intellectual Property" available on its website, the ABF states that it "can only seize goods suspected of infringing intellectual property rights if there is a valid Notice [of Objection] in place." Consequently, it is unclear how Australia will abide by its commitments under the CPTPP. The Index will continue to monitor these developments in 2020.

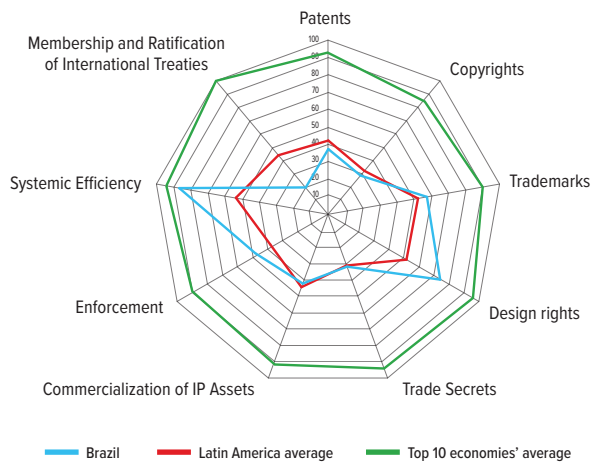
Systemic Efficiency

43. IP-intensive industries, national economic impact

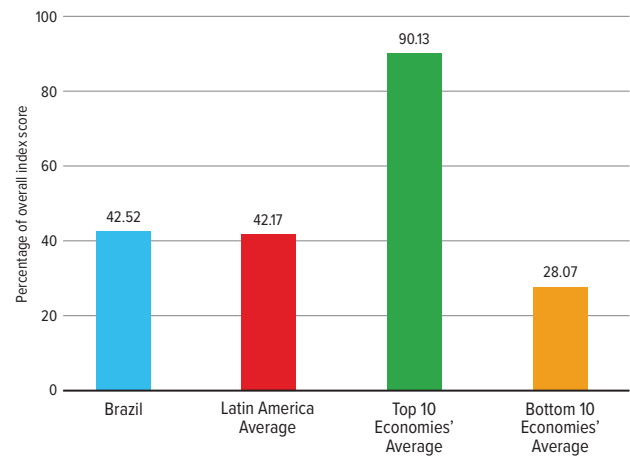
analysis: Various parts of the Australian government actively measure and seek to understand the economic contribution and value of IP-intensive industries to the Australian economy. For example, since 2012 IP Australia has had in place an Office of the Chief Economist. The chief economist's role is described by the agency as to "understand the role intellectual property (IP) plays in our economy." Since 2013 the office has published and commissioned various sector-specific and IP-right-specific research studies. These include the 2015 *Economic Impact of Innovation Patents*, the 2013 *Economic Impact of Human Gene Patents*, and other stand-alone research papers on topics such as design rights, the mining industry, and trademarks. In addition, based on WIPO's methodology and study guidelines, Australia has conducted a number of studies on the economic contribution of the copyright-based industries to the Australian economy. The latest of these, released in 2017, *The Economic Contribution of Australia's Copyright Industries—2002–2016*, was prepared by the consultancy PwC for the Australian Copyright Commission. IP Australia is in the process of developing a new research project similar to what the EUIPO and EPO have been carrying out in Europe for close to a decade. This would be a positive step and result in a score increase on this indicator. The Index will monitor these developments in 2020.

BRAZIL RANK 34/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ INPI's new 2019 patent backlog plan, *Plano de Combate ao Backlog de Patentes*, seeks to eliminate long-standing registration backlogs
- ✓ Stronger criminal enforcement on copyright through Operation Copyright in 2019
- ✓ Decree 9,931 of 2019 established new Interministerial Group on Intellectual Property to coordinate and oversee all issues relating to IP policy in Brazil
- ✓ Positive reform of long-standing barriers to licensing and commercialization activities in 2017
- ✓ Ten-year minimum term of patent protection in place for administrative delays

KEY AREAS OF WEAKNESS

- ✗ Key life sciences IP rights missing and challenging patentability environment
- ✗ Patentability barriers still in place through ANVISA review of biopharmaceutical patent applications
- ✗ Limited participant in international IP efforts—only a fully contracting party to the Patent Cooperation Treaty and Madrid Protocol

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	17. Trademarks term of protection (renewal periods)	1.00
2. Patentability requirements	0.25	18. Protection of well-known marks	0.50
3. Patentability of computer-implemented inventions	0.25	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
4. Plant variety protection, term of protection	0.74	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	Category 4: Design Rights, Related Rights, and Limitations	
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	21. Industrial design term of protection	1.00
7. Patent term restoration for pharmaceutical products	0.00		
8. Membership of the Patent Prosecution Highway (PPH)	0.50		
9. Patent opposition	0.50		
Category 2: Copyrights, Related Rights, and Limitations			
10. Copyright (and related rights) term of protection	0.63		
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.75
Category 5: Trade Secrets and the Protection of Confidential Information	1.00	Category 8: Systemic Efficiency	4.25
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.50	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	2.58	42. Targeted incentives for the creation and use of IP assets for SMEs	1.00
26. Barriers to market access	0.75	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	1.25
28. Registration and disclosure requirements of licensing deals	0.00	44. WIPO Internet Treaties	0.00
29. Direct government intervention in setting licensing terms	0.50	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	0.33	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	3.31	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.53	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.53	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.50		
TOTAL: 21.26			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Brazil's overall score has increased from 40.55% (18.25 out of 45) in the seventh edition to 42.52% (21.26 out of 50) in the eighth edition. This reflects a mixed performance on many of the new indicators added to the Index but score increases on Indicators 2, 36, and 39.

Patents, Related Rights, and Limitations

2. Patentability requirements: For Brazil, several important developments occurred in 2019 at both the administrative and judicial levels regarding the patent registration process. To begin with, the Brazilian government took several administrative steps that directly and indirectly make the patent registration and prosecution process less bureaucratic and time consuming. As noted in previous editions of the Index, the Brazilian Patent Office (INPI) has a long-standing backlog of patent applications ranging from 10 to 13 years depending on the field of technology; applications in the biopharmaceutical and ICT fields are traditionally the worst affected. The past few years have

seen a growing level of commitment and efforts by INPI to address this backlog. In 2019 a new INPI initiative was announced, the Backlog Fight Plan (*Plano de Combate ao Backlog de Patentes*). This initiative will be implemented through two new departmental administrative resolutions, INPI PR 240/2019 and INPI PR 241/2019. Both resolutions seek to accelerate the decision-making and patent prosecution process both for applications with and without existing prior art searches and documentation. Under two new “preliminary office actions” (orders 6.21 and 6.22), the response time for preliminary action has been limited to 90 days. The INPI's goal is to reduce the existing patent application backlog substantially by 2021 and reduce the average patent prosecution timeline to about two years. At the time of research these administrative changes had only begun to be implemented and it was not possible to assess their effectiveness. More broadly, the new government led by President Jair Bolsonaro has taken substantive action in opening the Brazilian economy, improving public administration, and reducing bureaucracy

and red tape. In 2019 the president signed into law the Declaration of Rights of Economic Freedom (Law No. 13,874, 2019). The purpose of this law is to elevate the right to free enterprise and economic activity as a guiding principle for the federal government. For example, Article 3 of the declaration adds a requirement that any business or applicant requesting an action by a public entity—such as issuing a license to operate, permit, or certification—should be immediately informed of the maximum time such an action will take. Failure of the public entity to act within the stated time frame will automatically result in the approval of the applied for action. For IP rights-holders—both for patents and for other registerable IP rights—this could provide a substantively higher level of clarity and certainty with how relevant Brazilian authorities will deal with future applications and the decision timelines. These actions, independently and in aggregate, have improved the overall environment for patent rights-holders in Brazil. As a result, the score on this indicator has increased by 0.25. Finally, a positive outcome was reached regarding the basis on which patent rights will be granted by the INPI. As has been discussed in previous editions of the Index, Brazil is one of the few economies in the world in which drug regulatory authorities have a role in evaluating patent applications. Article 229-C of the Industrial Property Law 9.279 gives the Brazilian National Health Surveillance Agency (ANVISA) a right to provide prior consent to biopharmaceutical patents that are being examined by the INPI. Consequently, decisions on whether to grant a patent are based on examination not solely by patent specialists and officials at INPI, but also by ANVISA. This has created a requirement of dual examination. The exact meaning and nature of ANVISA's right to prior consent has never been fully defined and frequently has been questioned in court. As a step in the right direction, the publication of the Interagency Ordinance in April 2017 clarified the relationship and interaction between ANVISA and INPI in the patent review process. Following INPI's notification, Article 2 of the ordinance moved ANVISA's role to earlier stages in the patent application to initiate the procedure for prior consent. Next, ANVISA would analyze applications in light of public health, and opinions regarding patentability would be binding on the INPI only in cases in which ANVISA concludes that there is a severe public health risk as prescribed under Article 4 of the regulation. Article 5 further mentioned drugs “of interest to the drug

policies and pharmaceutical assistance of the Public Healthcare System (SUS).” These new rules attempted to clarify, with caveats, the extent of ANVISA's role in providing opinions on patentability, with INPI leading the rest of the examination. In 2018 this new working arrangement was put to the test when the INPI approved a patent for a Hepatitis C medicine, sofosbuvir, over ANVISA's objections. As the president of the INPI himself described it in an interview with the periodical *IP Watchdog*, the granting of the patent was “a technical decision without interference.” Yet only a few days after the patent was granted, a Brazilian Federal Court suspended it after a lawsuit was filed by a coalition led by Marina Silva, a leading candidate in the then presidential election. In his judgment Judge Rolando Valcir Spanholo argued that the INPI had failed in its duty to review the patent application within the broader context of the social and economic interests of Brazil and ordered the agency to reassess the application. In December 2018 Judge Eduardo Rocha Penteado of the 14th Federal Court of the Federal District overturned the suspension of the patent on procedural grounds. In his judgment Penteado stated that the proper avenue for challenging a granted patent was administratively through a patent nullity action before the INPI, not before a court of law. Regarding a public interest case and the potential issuing of a compulsory license, the judge also made clear that there were no grounds for requesting such a license from a court of law. First, such decision-making powers resided with the executive branch and were subject only to judicial review, and, second, the legal basis for issuing such a license could be found only after a given patent was in use.

8. Membership of the Patent Prosecution Highway:

At the end of 2019, Brazil signed a technology-neutral patent prosecution highway agreement with USPTO and a number of other countries. Formerly limited only to certain technologies, this PPH is applicable to all technologies although has limitations on the maximum total number of applications as well as per technology area and frequency per applicant.

Enforcement

36. Criminal standards: Over the past year, Brazilian law enforcement increased their efforts to tackle online copyright piracy. Historically, criminal enforcement against IP infringement has been lacking. There are long backlogs

in the Brazilian justice system and the majority of those arrested on suspicion of criminal IP infringement never face criminal charges or prosecution; charges are either dropped or suspended. There have been isolated areas of success—for example, against physical piracy in São Paulo through the City Free of Piracy Project—but, overall, criminal enforcement has remained a challenge. In 2019 this changed with the launch of Operation Copyright, a new initiative by the Brazilian Federal Police to tackle copyright piracy. Reports suggest that the police took coordinated action in five Brazilian states, shutting down torrent sites and seizing equipment and suspected goods. Because of this activity, the score on this indicator has increased by 0.25.

Systemic Efficiency

39. Coordination of IP rights enforcement: In 2019, President Bolsonaro created a new coordinating body to coordinate and oversee all issues relating to IP policy. Decree 9,931 established the Interministerial Group on Intellectual Property (*Grupo Interministerial de Propriedade Intelectual*). The group consists of representatives from all major agencies within the government, including the Ministry of Justice, and is chaired by the Ministry of Economy. The decree states that the purpose of the GIPI is to “promote the cohesion of actions, programs, projects and initiatives of public bodies and entities with competences related to the intellectual property theme.” Article 1 (VI) gives the group the power to hold consultations with representatives from the private sector and civil society in the policymaking process. Given the stark challenges facing rights-holders in Brazil regarding the enforcement environment, the creation of the GIPI should lead to a renewed focus on the coordination of enforcement activities within the Brazilian government. Historically, antipiracy activities have been coordinated by the National Council to Combat Piracy and Crimes Against Intellectual Property (*Conselho Nacional de Combate à Pirataria e Delitos contra a Propriedade Intelectual*), which was established in 2005. The council included representatives from both the public and private sectors. However, industry reports suggest that the work of the CNCP has been virtually suspended since 2012. At the time of research, the GIPI was not yet operational and its overall effectiveness could not be assessed. The Index will follow and monitor the GIPI’s actions in 2020. Because this

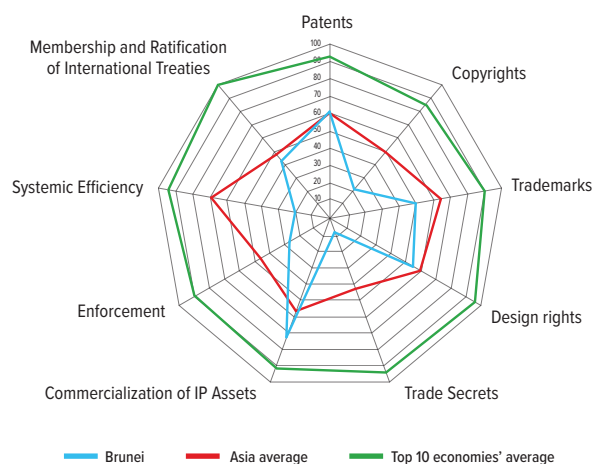
new body was established, the score on this indicator has increased by 0.25.

43. IP-intensive industries, national economic impact

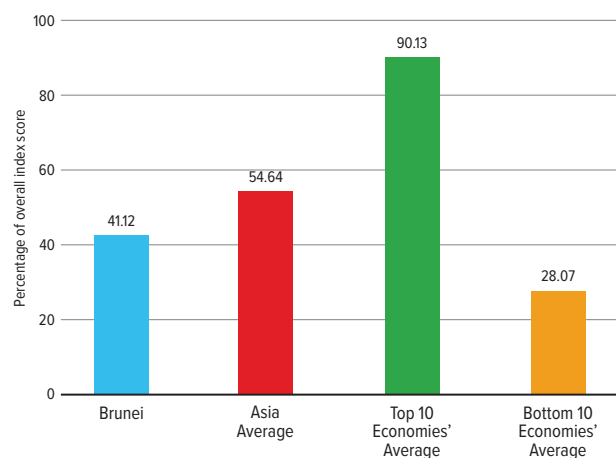
analysis: Several departments and agencies of the Brazilian government are studying the impact that IP rights have on national economic development and output. For several years INPI has commissioned research into the role of IP rights and their socioeconomic impact through the INPI Academy (*Academia da Propriedade Intelectual*). Since 2006 this academy has sponsored research and offered accredited postgraduate courses in various fields of IP rights and innovation. Furthermore, the main socioeconomic research arm of the federal government, the Institute for Applied Economic Research (IPEA; *Instituto de Pesquisa Econômica Aplicada*), has commissioned and conducted several studies on the relationship between IP rights and economic activity. This includes the 2008 monograph *Incentive Policies for Technological Innovation in Brazil* (*Políticas de Incentivo à Inovação Tecnológica no Brasil*). Chapter 12 of this book was dedicated to the economic impact trademark and patent registrations have on firm and labor productivity. The study found that, although more empirical evidence was needed, “there is evidence that trademark and patent filing positively affects firm productivity, which reinforces the need for investments that make the operation of the intellectual property system more efficient.” The IPEA has also commissioned more recent studies, including a number of technical notes (*Nota Técnica*) and sector-specific studies for the creative economy; for the latter see, for example, the 2013 *Panorama da Economia Criativa no Brasil*, which estimated that the creative economy generated between 1.2% and 2% of Brazilian GDP and employed 2% of the labor force. Still, there is no government program in place akin to those in other high-income developed OECD economies that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

BRUNEI RANK 35/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Accession to WIPO Internet Treaties in 2017
- ✓ Major IP reforms in the past few years, including establishing an IP Office (BrulPO)
- ✓ Removed from Special 301 Report
- ✓ PPH agreement in place with Japan
- ✓ No fundamental administrative or regulatory barriers in place for executing licensing agreements

KEY AREAS OF WEAKNESS

- ✗ Life sciences IP rights lacking
- ✗ RDP not available
- ✗ Limited framework for addressing online piracy and circumvention devices
- ✗ High software piracy rates—64% in latest estimates
- ✗ Limited incentives in place for the creation and use of IP assets for small and medium-sized enterprises (SMEs)

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations	5.50	12. Expeditious injunctive-style relief and disabling of infringing content online	0.00
1. Patent term of protection	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.00
2. Patentability requirements	0.75	14. Scope of limitations and exceptions to copyrights and related rights	0.25
3. Patentability of computer-implemented inventions	0.75	15. Digital rights management legislation	0.25
4. Plant variety protection, term of protection	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	Category 3: Trademarks, Related Rights, and Limitations	2.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	1.00	18. Protection of well-known marks	0.50
8. Membership of the Patent Prosecution Highway (PPH)	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
9. Patent opposition	0.50	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.00
Category 2: Copyrights, Related Rights, and Limitations	1.53	Category 4: Design Rights, Related Rights, and Limitations	1.10
10. Copyright (and related rights) term of protection	0.53	21. Industrial design term of protection	0.60
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.25	Category 8: Systemic Efficiency	1.00
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.00	40. Consultation with stakeholders during IP policy formation	0.00
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.25
Category 6: Commercialization of IP Assets	4.33	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	3.00
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.33	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.85	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.49	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.36	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.00		
TOTAL: 20.56			

Spotlight on the National IP Environment

Past Editions Versus Current Score

Brunei's overall score has increased from 38.46% (17.31 out of 45) in the seventh edition to 41.12% (20.56 out of 50) in the eighth edition. This reflects a relatively strong performance on the new indicators added to the Index.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Section 23 of the Plant Varieties Protection Order 2015 provides for a term of protection of 25 years for all plant varieties.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: Brunei has for many years sought to diversify its economy, moving away from natural resource extraction toward other areas of economic activity. The government of Brunei has invested in developing a high-tech capacity with a focus on knowledge-intensive sectors. As part of its overall national economic development plan, the Brunei

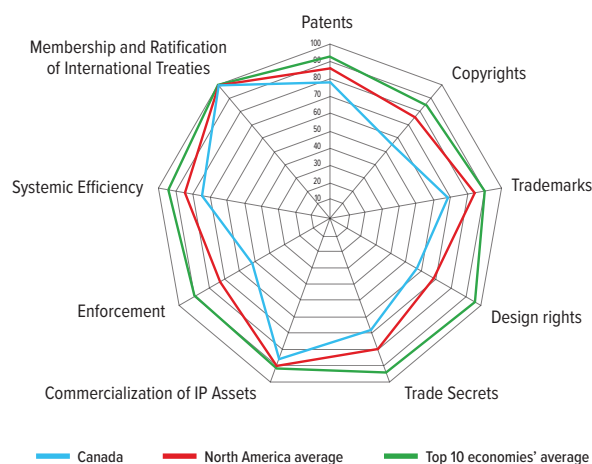
Economic Development Board (the national investment promotion agency) has included technology and the creative industries as one of five key areas for national development. As part of developing this capacity, Brunei has recognized the link between the protection of IP and economic and technological development. Since its inception in 2013, the Brunei IP Office has conducted awareness-raising activities on the value of IP and use as an economic asset. Similarly, the Centre for Strategic and Policy Studies—a government-supported think tank and research institute—has published a number of books and articles on economic diversification and the manner in which Brunei must reform and strengthen relevant enabling institutions and policies to stimulate innovation and economic growth. However, overall there is no government program in place seeking to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

Membership and Ratification of International Treaties

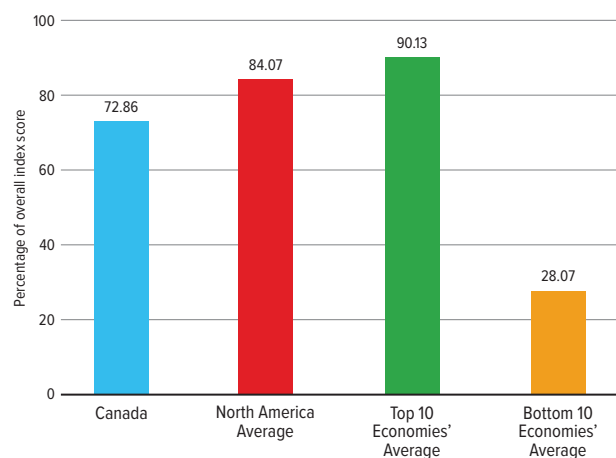
Brunei has improved its performance on this category. In addition to being a contracting party to the WIPO Internet Treaties, Brunei is also a contracting part to three of the new treaties added to the Index: the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; the Patent Cooperation Treaty; and the Hague Agreement Concerning the International Registration of Industrial Designs. Brunei is not a contracting party to the Singapore Treaty on the Law of Trademarks; the Patent Law Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991; or the Convention on Cybercrime, 2001. Brunei is one of the contracting parties to the CPTPP. In March 2018 the final agreement was signed and the full text released. The text of the CPTPP retains some aspects of the original TTP's IP provisions, including, for example, provisions relating to trade secrets and border enforcement. However, numerous critical provisions have been suspended, including for patentable subject matter; biopharmaceutical-specific IP rights, such as regulatory data protection; copyright protection and enforcement; and protections relating to satellite and cable signals. As a result, the CPTPP does not conform to the modern standards of other post-TRIPS international trade agreements and no score has been allocated to Brunei under this indicator. At the time of research, Brunei had not ratified the CPTPP.

CANADA RANK 16/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Supreme Court judgment on utility doctrine in 2017 aligns Canada's patentability environment with international standards
- ✓ CETA implementation legislation in place, including patent term restoration and PM (NOC) regulations
- ✓ Significant damages awarded in precedent-setting 2017 Federal Court case regarding Canada's digital rights management provisions

KEY AREAS OF WEAKNESS

- ✗ PMPRB regulation effective as of July 1, 2020 may dilute or devalue pharmaceutical patent rights
- ✗ CETA amendments to Patent Act introducing patent term restoration includes a low 2-year maximum term of restoration, restrictive eligibility requirements as well as an export claw-out, which effectively undermines biopharmaceutical exclusivity
- ✗ Lack of border measures for in-transit goods and limited transparency and information available from Canadian customs on seizure statistic

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		7.05	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.75	13. Availability of frameworks that promote cooperative action against online piracy	0.25
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.25	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.30	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	0.75
9. Patent opposition	0.75	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
Category 2: Copyrights, Related Rights, and Limitations		3.88	
10. Copyright (and related rights) term of protection	0.63	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	0.40
		1.15	

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	2.05	Category 8: Systemic Efficiency	3.75
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.80	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	5.17	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	3.63	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.60	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.78	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.50		
TOTAL: 36.43			

Spotlight on the National IP Environment

Past Editions Versus Current Score

Canada's overall score has increased substantially from 66.4% (29.88 out of 45) in the seventh edition to 72.86% (36.43 out of 50) in the eighth edition. This reflects Canada's overall strong performance on the new indicators added.

Area of Note

Biopharmaceutical rights-holders face growing challenges in Canada in exercising their IP rights and granted periods of exclusivity. Overall, there is a strong focus on cost control and minimizing overall biopharmaceutical spending within the Canadian health system. In August 2019 final regulations were published to reform the way in which patented medicines are evaluated and priced through the Patented Medicine Prices Review Board's (PMPRB) evaluation methodology. Specifically, these reforms include changes to the basket of countries used for price comparisons. Most notably, the regulations expand the size of the basket and remove the United States and

Switzerland. Comparator countries to be added are Australia, Belgium, Japan, the Netherlands, Norway, Korea, and Spain. Given the strict price controls in place in these new economies and the removal of the United States and Switzerland as comparator economies, these changes will substantially lower the overall price comparisons and thus the overall biopharmaceutical price level in Canada. In addition to the amended regulations, the PMPRB released draft guidelines that provide further insight into how the new changes will be interpreted and applied. As currently drafted, the guidelines are extremely complex and create significant concern for pharmaceutical manufacturers. These changes will exacerbate what is already a challenging market access environment and make it less likely that Canadian patients can access new innovative biopharmaceutical treatments and products.

Patents, Related Rights, and Limitations

7. Pharmaceutical patent term restoration: As noted in previous editions, following the implementation of the

Comprehensive Economic and Trade Agreement (CETA), Canada introduced a new regulatory scheme that allows for some compensation for delays in obtaining marketing approval for biopharmaceutical products. The relevant amendments made to the Patent Act (Sections 106–134) and implementing regulations published in the Canada Gazette provide a maximum restoration period of two years through a Certificate of Supplementary Protection (CSP) mechanism. Although overall this positive step helped improved Canada’s biopharmaceutical IP environment, as noted in the sixth edition of the Index, significant areas of concern remained. First, under Section 116(4), the Canadian government retained the right to reduce the term of protection at its discretion. Second, the implementing regulations contained a “Timely Submission Requirement” that set a timeline for the submission of CSP applications based on the regulatory status of a given product in a set of “prescribed economies.” Thus, the availability of a CSP was made contingent on early market entry. Finally, the law also contained an export claw-out, with Section 115(2) effectively exempting the infringement of CSP protection if the activity is for the purpose of export. Given these limitations to the practical availability of the restoration period the score on this indicator remained at 0. This year we have changed the methodology used to calculate the score on this indicator. This indicator now consists of two distinct variables: first, the existence of a term of patent restoration for pharmaceutical products due to the prolonged research, development, and regulatory approval periods for such products; and second, the existence of any exemptions, waivers or similar carve-outs on the full and effective use of such a term of restoration including for industrial policy purposes. Of the available score, 0.75 for this indicator is allocated to the existing term of protection compared to the current baseline rate of five years term restoration used in the U.S., EU, and Japan. The remaining 0.25 is allocated on the basis of a given economy providing any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration including for industrial policy purposes. As a result of these changes Canada’s score has increased to 0.3.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: The Canadian Intellectual Property Office (CIPO) is an active agency with a well-developed program of

analyzing the impact of IP rights and registration activity on various parts of the Canadian economy. Specifically, since 2016 CIPO has published an annual review of IP-related activity, the *IP Canada Report*. While the report primarily provides an overview of registration activity in Canada and internationally over the course of the previous year, it includes an additional economic impact analysis on a specific theme or IP right. For example, the most recent report from 2019 includes an analysis of the impact of IP assets on the financing and growth of SMEs. The editions 2017 of the report included an economic impact analysis of industrial designs. The Canadian government has also supported and commissioned sector-specific, stand-alone analyses that include the creative sector. For example, in 2004 Canadian Heritage commissioned a study to examine the role and contribution of the creative sector to the Canadian economy. The study, *The Economic Contribution of Copyright-Based Industries*, was executed using the methodology developed by WIPO. However, there is no government program in place akin to those in other high-income developed OECD economies that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

Membership and Ratification of International Treaties

Canada has seen a dramatic improvement in its performance on this category. This is in part due to a dedicated commitment from the Canadian government to join several major IP treaties over the past half-decade as well as the addition of new treaties to the Index. In the first edition of the Index, published in 2012, Canada achieved a score of 1 out of a total available score of 5 (20%). In this year’s edition of the Index, Canada achieves a score of 7 out of a possible 7 (100%). In 2019 Canada acceded to three international treaties included in the Index: the Singapore Treaty on the Law of Trademarks, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, and the Patent Law Treaty. This is a remarkable achievement and the Canadian Government should be congratulated on this improvement.

50. Post-TRIPS FTA: Canada is a contracting party to the USMCA. As noted in past editions, Chapter 20 of the original USMCA treaty signed in 2018 had the potential to

strengthen Canada's national IP environment. The USMCA included many critical provisions such as:

- Stronger pharmaceutical-related IP protection, including regulatory data protection terms of 5 years for new chemical entities (NCEs) and 10 years for biologics;
- More effective trade secret protection including criminal sanctions;
- *Ex officio* border enforcement against all suspected counterfeit goods including goods in-transit; and
- Strengthened copyright provisions, including a longer term of protection, digital rights management (DRM)/technological protection measures (TPM), and exceptions and limitations limited to the long-standing, internationally recognized three-step test.

As was noted in the previous edition of the Index, the agreement was not perfect and fell short of the standard measured by the IP Index, lacking for instance many provisions relating to a 21st century copyright regime. Specifically, the agreement was unclear about the required type of notification and safe harbor regime. On the one hand, Article 20.J.11 clearly stated that a notice-and-takedown regime should be in place that includes a clear requirement that to be exempt from any secondary liability, internet service providers (ISPs) should “expeditiously remove or disable access to material residing on their networks or systems upon obtaining actual knowledge of the copyright infringement or becoming aware of facts or circumstances from which the infringement is apparent, such as through receiving a notice of alleged infringement from the right holder or a person authorized to act on its behalf.” On the other hand, the annex to Section J provided a substantial carve-out for Canada's existing notice-and-notice regime. Similarly, the agreement did not include a requirement for injunctive-style relief, which allows rights-holders to take immediate and effective action against online infringement.

Unfortunately, the original agreement signed in November 2018 was substantively revised. In December 2019

Speaker of the House of Representatives Nancy Pelosi announced that a revised USMCA had been agreed upon with the White House, Canada, and Mexico. The text of the final agreement revealed that important parts of the original USMCA had either been completely removed or fundamentally altered. This includes critical provisions relating to biopharmaceutical IP protection and incentives. Specifically, the revised agreement:

- removed provisions relating to a 10-year term of regulatory data protection for biologic medicines;
- weakened patentability standards by not allowing second and additional use claims;
- weakened administrative mechanisms that link the registration and market approval of a follow-on product to the exclusivity status of a reference product; and
- weakened provisions relating to term restoration for biopharmaceutical products.

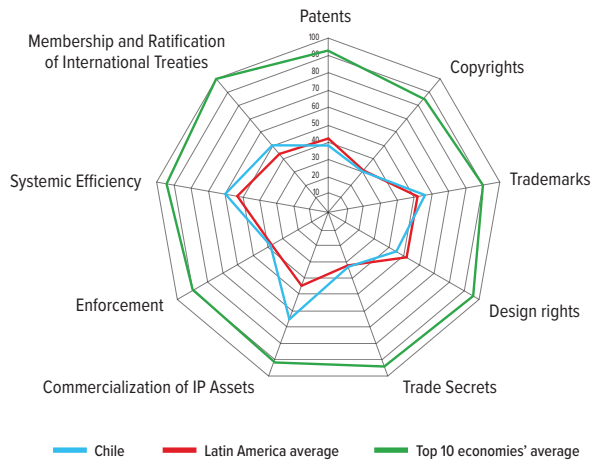
At the time of research, the Canadian Parliament had not passed any legislation implementing the revised USMCA. The Index will continue to monitor these developments in 2020.

Canada is also one of the handful of economies that has ratified the CPTPP. As has been noted in previous editions of the Index, under the terms of the CPTPP numerous critical provisions of the original TPP have been suspended, including for patentable subject matter; biopharmaceutical-specific IP rights, such as regulatory data protection; copyright protection and enforcement; and protections relating to satellite and cable signals. The result is that the CPTPP does not conform to the modern standards of other post-TRIPS international trade agreements. Nevertheless, the text of the CPTPP retains many important aspects of the TPP's IP chapter. For example, the CPTPP provides a clear and unambiguous requirement that border officials in all contracting parties have the right to take *ex officio* action against suspected infringing goods. This includes goods in transit. As has been noted in previous editions of the Index, Canadian border officials have traditionally not had *ex officio* powers to search and seize goods suspected

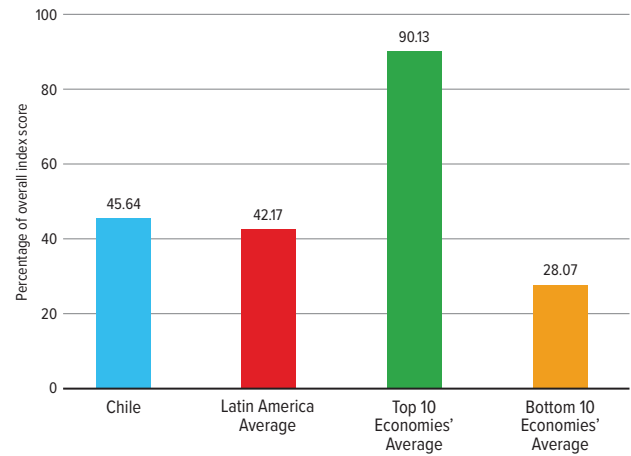
of infringing IP rights, and customs officials require a court order to seize and detain suspected goods under both the Copyright Act and the Trade-Marks Act. New legislation in 2014 (Bill C-8) introduced more robust border measures, including new civil and criminal options as well as expanded powers for customs officials, enabling the detention of goods suspected of copyright or trademark infringement. Unfortunately, the new legislation did not extend to counterfeit goods in transit, which, provided they are not destined for the Canadian market, can continue to pass through Canadian customs largely unimpeded. In late 2018 Canada introduced and passed CPTPP implementing legislation amending a range of relevant statutes, including the Customs Act and Trade-Marks Act. However, the new law does not include any provisions relating to *ex officio* powers and goods in transit. Consequently, it is unclear how Canada will abide by its commitments under the CPTPP. The Index will continue to monitor these developments in 2020.

CHILE RANK 32/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Efforts to improve enforcement through coordination, international cooperation, and pending IP reform
- ✓ Commitment to improve IP environment through international trade agreements
- ✓ Efforts to streamline IP registration
- ✓ Promotion of IP commercialization

KEY AREAS OF WEAKNESS

- ✗ Threat of issuing a compulsory license based on cost considerations for medicines persisted in 2019
- ✗ Gaps in patent protection for biopharmaceuticals, including obstacles to patentability and lack of effective patent enforcement
- ✗ High levels of counterfeiting and piracy for an OECD economy—55% estimated software piracy
- ✗ Lack of sufficient framework to tackle online piracy

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		3.44	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.50
2. Patentability requirements	0.25	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	0.74	15. Digital rights management legislation	0.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.70	2.25	
8. Membership of the Patent Prosecution Highway (PPH)	0.50	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.25	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
2.13		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.63	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	0.90	
		21. Industrial design term of protection	0.40

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.50
Category 5: Trade Secrets and the Protection of Confidential Information	1.00	Category 8: Systemic Efficiency	3.00
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	3.92	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	3.50
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.75	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	2.68	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.48	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.45	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.25		
TOTAL: 22.82			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Chile's overall score has increased from 44.38 (19.97 out of 45) in the seventh edition to 45.64% (22.82 out of 50) in the eighth edition. This reflects a relatively strong performance on the new indicators added to the Index and a score increase on indicator 7.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection; and 47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991: Since 1996 Chile has been a member of the UPOV Convention, act of 1978, but has not yet acceded to UPOV 1991. Chile is a signatory to the 1991 act, which was approved by Congress in 2011, but no promulgation law or decree has been adopted. A ratification bill was withdrawn by President Michelle Bachelet in 2014. The issue of acceding to the 1991 act is currently being debated within the broader discussion of the ratification of the CPTPP. The current legislation, Law No. 19.342 (Plant Breeder's Rights), provides an 18-year

term of protection for trees and vines and a 15-year term for other species.

6. Legislative criteria and active use of compulsory licensing of patented products and technologies; and 18. Protection of well-known marks: President Sebastian Pinera has urged Congress to approve the Drugs Act II (*Ley de Farmacos II*) as one of the measures of the National Drug Policy presented in October 2019 that seeks to improve the availability of drugs and reduce out-of-pocket costs. During the bill's long iteration through Congress, new provisions have been added that put IP rights at risk. Some provisions of this act greatly extend the reach of nonvoluntary licenses, incorporating discretionary elements such as "shortage" or "economic inaccessibility" of products as a legitimate ground for issuing such licenses. Furthermore, members of the Chilean Congress continue to pressure the Chilean government to use compulsory licenses as a cost-containment tool and in 2018-19 submitted a new compulsory license proposal for hepatitis

C products to the Ministry of Health. Regarding the proposals on compulsory licensing as a cost-containment tool, cost is not a relevant justification or basis for compulsory licensing under the TRIPS agreement. TRIPS Article 31, the amendments introduced in the 2001 Doha Ministerial Declaration, and subsequent General Council decision allowing the export of medicines produced under a compulsory license (outlined in Paragraph 6), form the legal grounds for compulsory licensing for medicines. The chairman's statement accompanying the General Council decision (concerning Paragraph 6 of the Doha Declaration) underscores that these provisions are not in any way intended for industrial or commercial objectives and, if used, it is expected that they would be aimed solely at protecting public health. In addition, Article 31 and the Doha Declaration suggest that compulsory licensing represents a "measure of last resort," intended primarily for public health and humanitarian emergencies such as pandemics, and to be used only after all other options for negotiating pricing and supply have been exhausted.

7. Pharmaceutical patent term restoration: This year we have changed the methodology used to calculate the score on this indicator. This indicator now consists of two distinct variables: first, the existence of a term of patent restoration for pharmaceutical products due to the prolonged research, development, and regulatory approval periods for such products; and second the existence of any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration including for industrial policy purposes. Of the available score for this indicator, 0.75 is allocated to the existing term of protection compared to the current baseline rate of five years term restoration used in the U.S., EU, and Japan. The remaining 0.25 is allocated on the basis of a given economy providing any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration including for industrial policy purposes. As a result of these changes, Chile's score has increased to 0.70.

Design Rights, Related Rights, and Limitations

21. Industrial design term of protection; 35.

Preestablished damages and/or mechanisms for determining the amount of damages; and 36. Criminal standards: The Chilean government proposed a bill to

Congress in 2018 (referred to as *Ley Corta de INAPI*) aimed at better aligning the IP Law and Criminal Code with international standards. The bill puts forward wide-ranging improvements that increase legal certainty for rights-holders. First, it criminalizes counterfeiting by creating a new section in the IP law that punishes with imprisonment those who manufacture, import, or commercialize counterfeit products. Second, it introduces clear rules for fixed civil compensation for damages, establishing the maximum possible amount at 2,000 Monthly Tax Units. Until now, compensation for damages was calculated based on the general rules of the Civil Code. Third, it extends the term of protection for design rights from a maximum of 10 to 15 years and sets up a new abbreviated procedure for granting industrial design registrations without substantive examination. The draft law was approved by the Chilean lower house in April 2019 and now awaits approval by the Senate. If the bill as currently constructed is passed and signed into law, the score of Indicator 21 would increase to 0.6 and the scores for Indicators 35 and 36 would each increase by 0.25.

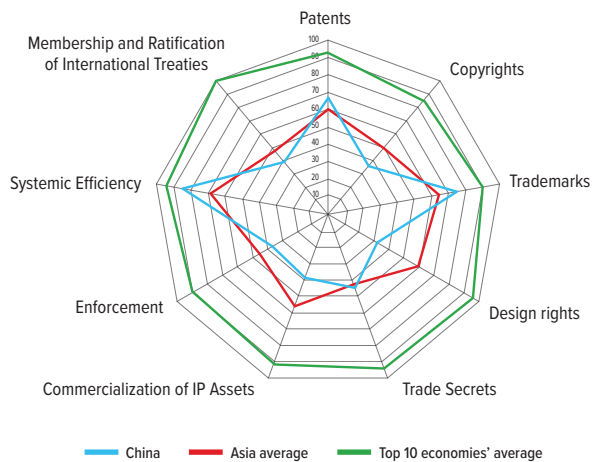
Enforcement

38. Transparency and public reporting by customs

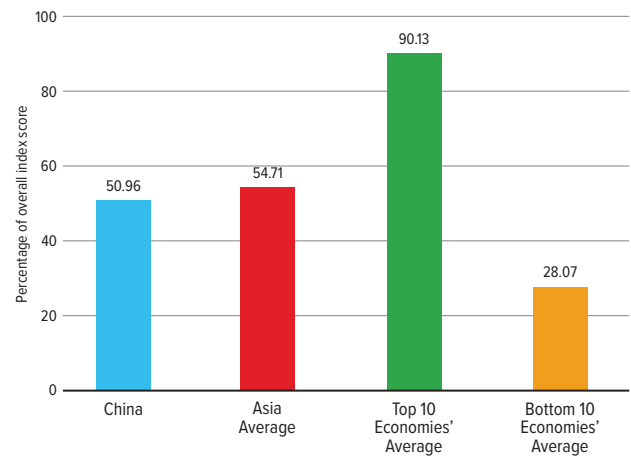
authorities of trade-related IP-infringement: Data submitted by the Chilean Customs Authority to the U.S. Chamber of Commerce provides a detailed picture of the aggregate number and value of confiscated infringing goods in Chile up to 2019, including the type of good and most pirated brands. Indicator 38 measures the extent to which customs authorities publish data on trade-related IP infringement on a regular and systematic basis, and the level of detail of this data. In Chile the Observatory of Illicit Trade publishes aggregated statistics from the customs and police, reporting the number and value of items seized as well as brands mostly affected. The next step to provide a full understanding of the actions taken by Chilean customs would be to regularly publish customs seizure data, including the types of confiscated items and their country of origin.

CHINA RANK 28/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Removal of some barriers and restrictions on technology transfer and licensing in 2019
- ✓ Trademark amendments of 2019 seek to address issue of bad faith filings
- ✓ Amendments to Anti-Unfair Competition Law in 2019 seek to strengthen protection of trade secrets
- ✓ Strong efforts to raise awareness and leveraging of value of IP rights in academic and private spheres
- ✓ Signing of a substantive bilateral agreement on IP

KEY AREAS OF WEAKNESS

- ✗ No implementation of biopharmaceutical linkage mechanism—this policy has essentially stood still since 2017
- ✗ Despite improved enforcement efforts, levels of IP infringement remain high
- ✗ Interpretation of IP laws can be fragmented and out of sync with international standards

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		6.03	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.75	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	0.78	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.25	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	3.00	
8. Membership of the Patent Prosecution Highway (PPH)	1.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.25	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
2.53		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.75
10. Copyright (and related rights) term of protection	0.53	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	0.65	
		21. Industrial design term of protection	0.40

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	1.35	Category 8: Systemic Efficiency	4.25
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.60	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	2.33	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	2.75
28. Registration and disclosure requirements of licensing deals	0.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.25	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.75
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.33	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	2.59	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.00	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.34	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.50
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.00		
TOTAL: 25.48			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

China's overall score has increased from 47.67% (21.45 out of 45) in the seventh edition to 50.96% (25.48 out of 50) in the eighth edition. This reflects, on the one hand, a mixed performance on the new indicators added to the Index and a score decrease on Indicator 5, but, on the other hand, score increases on Indicators 19, 23, 26, 27, 29 and 50. To note, the Phase One Agreement signed between the U.S. and China on January 15, 2020 will increase only Indicator 50 in this edition. The Index will closely monitor the implementation of the relevant provisions of the Phase One Agreement and changes made to relevant Chinese laws, regulations, and practices may result in additional score changes in the next edition of the Index.

Patents, Related Rights, and Limitations

5. Pharmaceutical-related patent enforcement: In October 2017, the central government committed to introducing a patent linkage mechanism and issued State Council Opinions on Deeping Regulatory Reforms to Encourage

Drug and Medical Device Innovation—increasing China's score on this indicator from 0.0 to 0.5. The commitment was not subsequently implemented in 2018 and 2019. As a result, the score on this indicator has been reduced by 0.25 in this edition of the Index. In early 2020, China again committed in the Phase I Agreement (Article 1.11) to adopt a form of patent linkage. Upon implementation, China's score on this indicator will be reevaluated.

Trademarks, Related Rights, and Limitations

19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks: For China, 2019 saw important changes to trademark laws to address the long-standing issue of bad faith filing applications and trademark squatting. New amendments have raised fines for bad faith filing applications and seek to further disincentivize and penalize the filing of bad faith applications and trademark squatting. Specifically, the new amendments introduce a lack of use as an absolute ground for opposition and refusal to

registration. The law also introduces penalties for filing agents who are viewed as abusing the system and filing applications in bad faith. Some uncertainty exists about how these new amendments (and implementing regulations and practice) will handle and address legitimate rights-holders having registered their trademarks as a defensive strategy and not necessarily with the intention for immediate use. Nevertheless, this positive action has resulted in an increase of 0.25 on this indicator.

Trade Secrets and the Protection of Confidential Information

23. Protection of trade secrets (civil remedies): As noted in past editions of the Index, the protection of trade secrets has long been a challenge in China. Legal protection has been weaker than in other jurisdictions and practical enforcement has been hampered by the relatively low damages awarded. The Anti-Unfair Competition Law added new amendments in 2019. These include several important improvements: a more comprehensive definition of trade secrets; less of an onus on the rights-holder to prove the existence of a “secret,” cyber theft, abetting trade secret theft, and/or infringement; and, finally, an increase in penalties and statutory damages. It remains to be seen the effect these new laws will have on the legal environment and China and on rights-holders’ ability to effectively protect and enforce their legal rights pertaining to trade secrets and confidential information. Nevertheless, this is a notable improvement to China’s national IP environment; as a result, the score on this indicator has increased by 0.25.

Commercialization of IP Assets and Market Access

26. Barriers to market access; 27. Barriers to technology transfer; and 29. Direct government intervention in setting licensing terms: As noted in previous editions of the Index, rights-holders have faced a growing number of regulatory barriers, procedural barriers, and inflexible terms to licensing in China that impede technology flows and R&D cooperation. China has imposed restrictions on the rights and interests of foreign IP rights-holders to freely negotiate market-based contractual terms in licensing and other technology-related contracts concerning the transfer of technology to China. The TIER have included discriminatory conditions for foreign licensors, including indemnification of Chinese licensees against third-party infringement and

transfer of ownership of future improvements on a licensed technology to the licensee (whereas a Chinese IP owner is able to negotiate different terms), which restrict the ability of foreign companies to negotiate licensing and technology contracts on market terms and to fully commercialize their technology in China. Under the Joint Venture regime, licenses and tech transfer contracts cannot last more than 10 years, after which the licensee retains the right to use the transferred technology, although it might still be under a term of exclusivity. The Working Measures for Outbound Transfer of Intellectual Property Rights adopted in 2018 tightened the scrutiny on the outbound transfer of technology and IP. In the context of standards setting, there has also been a trend toward greater administrative involvement in determining patent licensing terms and the ability to secure relief from infringement. The National Security Law, Cybersecurity Law, Security Assessments for Network Products and Services, and several standards (e.g., secure and controllable standard) all have product reviews that require IP disclosure. Both the United States and the EU have filed their own complaints with the WTO against China over its technology licensing practices, and this has been a central point of contention and negotiation in the current trade dispute between the United States and China. China’s technology transfer and licensing environment had significant positive changes in 2019. The Foreign Investment Law, the Technology Import and Export Regulations, and Regulations for the Implementation of the Law of the People’s Republic of China on Chinese-Foreign Equity Joint Ventures were changed, with many of the most onerous provisions described above now removed. Specifically, Article 22 of the Foreign Investment Law now states explicitly that the IP rights of foreign entities and investors should be protected and no coercion or forced technology transfer should occur. Similarly, the revised TIER regulations have removed and/or amended provisions to indemnification and ownership and usage of improvements made to a licensed technology. These changes hold the promise of fundamentally remodeling the nature in which licenses can be drafted and executed between foreign and Chinese entities. Although licensors and rights-holders continue to face substantive challenges to doing business in China on fair, nondiscriminatory, and equal terms, these are real and important changes to the legal environment in China. As a result, China’s score has increased on Indicators 26, 27, and 29.

Systemic Efficiency

43. IP-intensive industries, national economic impact

analysis: Various parts of the Chinese government have expressed a growing interest in understanding the relationship between IP rights and economic activity. Since 2010 the China National Intellectual Property Administration and its predecessor have issued an annual report on China's IP environment, the *Evaluation Report on China Intellectual Property Development Status*. The report includes an "IP Utilization Index" that includes specific components relating to economic utilization and market activity, including exports of creative works, value of executed licensing transactions, and software exports. Economic impact and utilization were, and continue to be, core features of the National IP Strategy. In addition, the National Copyright Administration of the People's Republic of China has together with WIPO examined the economic contribution of the creative economy in the 2011 *The Economic Contribution of Copyright-Based Industries in China*.

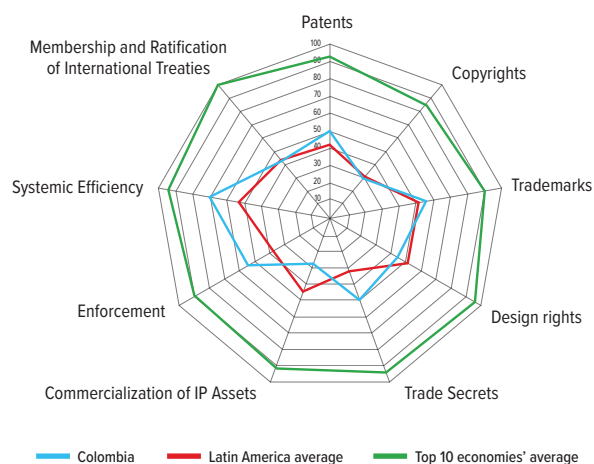
measure will go into effect." As a result of the signing of this agreement, China's score has increased by 0.5 on this indicator.

Membership and Ratification of International Treaties

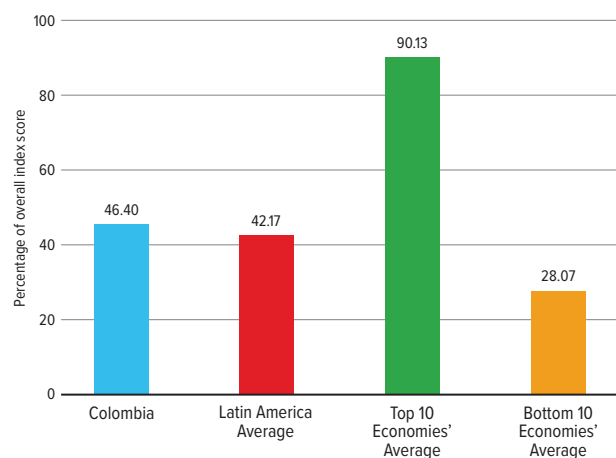
50. Post-TRIPS FTA: This indicator captures various types of bilateral or multilateral agreements with substantive IP chapters (see methodology section for more details). In January 2020, the United States and China signed the "Economic and Trade Agreement Between the Government of the United States and the Government of the People's Republic of China." It is labeled as Phase One and covers a number of issues in the economic and trading relationship between the two largest economies in the world. Specifically, it includes both a dedicated chapter on IP (chapter 1) and technology transfer and licensing (chapter 2). The IP chapter covers a number of major IP rights, sector-specific rights, and enforcement and is relevant to many of the challenges raised in the Index over the last eight editions. Critically, article 1.35 of the chapter states that within 30 days of the entry into force of the deal, China will "promulgate an Action Plan to strengthen intellectual property protection aimed at promoting its high-quality growth." Furthermore, this Action Plan is to include the specific "measures that China will take to implement its obligations under this Chapter and the date by which each

COLOMBIA RANK 29/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Colombian Constitutional Court in 2019 issued a ruling that recognizes the constitutionality of statutory damages for copyright infringement introduced by 2018 amendments to the Copyright Law
- ✓ Targeted incentives in place for the creation and use of IP assets for SMEs including reduced filing fees and technical assistance
- ✓ Efforts to coordinate interagency IP enforcement and raise public/stakeholder engagement on IP policymaking and education

KEY AREAS OF WEAKNESS

- ✗ Substantial barriers in place for licensing activities, including direct government intervention and review of technology transfer and licensing agreements
- ✗ Key life sciences IP rights missing, including patent term restoration and mechanisms for early patent dispute resolution
- ✗ Use of compulsory license regime to leverage price reduction for biopharmaceuticals
- ✗ Uncertainty over availability of RDP for biopharmaceuticals
- ✗ Inadequate and delayed prosecution of and penalties for IP infringement

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	17. Trademarks term of protection (renewal periods)	1.00
2. Patentability requirements	0.50	18. Protection of well-known marks	0.50
3. Patentability of computer-implemented inventions	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
4. Plant variety protection, term of protection	1.00	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.25	Category 4: Design Rights, Related Rights, and Limitations	
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	21. Industrial design term of protection	0.40
7. Patent term restoration for pharmaceutical products	0.00		
8. Membership of the Patent Prosecution Highway (PPH)	1.00		
9. Patent opposition	0.25		
Category 2: Copyrights, Related Rights, and Limitations			
10. Copyright (and related rights) term of protection	0.84		
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25		
12. Expedient injunctive-style relief and disabling of infringing content online	0.00		
13. Availability of frameworks that promote cooperative action against online piracy	0.00		
14. Scope of limitations and exceptions to copyrights and related rights	0.25		
15. Digital rights management legislation	0.25		
16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.50
Category 5: Trade Secrets and the Protection of Confidential Information	1.50	Category 8: Systemic Efficiency	3.50
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.50	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	1.67	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.25	Category 9: Membership and Ratification of International Treaties	3.00
28. Registration and disclosure requirements of licensing deals	0.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	3.79	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.52	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.52	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.75		
TOTAL: 23.20			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Colombia's overall score has increased from 43.77% in the seventh edition (with a score of 19.7 out of 45) to 46.40% in the eighth edition (with a score of 23.20 out of 50). This reflects a relatively strong performance on the new indicators added to the Index.

Patent Rights, Related Rights, and Limitations

4. Plant variety protection, term of protection; and 47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991: Colombia is a contracting party to the International Convention for the Protection of New Varieties of Plants, act of 1978. Parts of Colombian statute are aligned with the act of 1991, but Colombia has not ratified or formally acceded to the treaty. Law No. 243 of 1995 approved the UPOV Convention as revised up to 1978. Subsequently, Decree 2687 of 2002 aligned the term of protection for plant varieties to the 1991 act. Efforts in 2012 to formally ratify the UPOV Act of 1991 were blocked by the Constitutional Court, which declared

accession unconstitutional due to a lack of consultation with Afro-Colombian and indigenous communities.

Enforcement

35. Preestablished damages and/or mechanisms for determining the amount of damages: On July 31, 2019, the Colombian Constitutional Court issued a ruling (ruling C-345-19) that recognizes the constitutionality of statutory damages for copyright infringement introduced by 2018 amendments to the Copyright Law. The court confirmed that rights-holders can choose to be subject to the system of preestablished compensation or to the general rules on proof of compensation. The court also sets a new 12-month deadline for the government to promulgate implementing regulations. The introduction of statutory damages for copyright would raise the score for Indicator 35.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: At present, no government program is in place

that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment. However, the Colombian government has for several years placed a high priority on building the copyright-based creative and cultural industries (referred to as the “orange economy”) and is taking important steps to analyze and further promote its impact on the national economy. In 2019 the National Administrative Statistics Service (DANE) published the *First Report on the Orange Economy 2014-2018*, according to which the 32 activities making up the orange economy accounted for 1.9% of total value added in Colombia between 2014 and 2018. The 2017 Orange Economy Law (Law 1834/2017) created the National Council of the Orange Economy and, within this, an Information Table coordinated by the DANE. Within this framework, the DANE and the Ministry of Culture defined a list of 32 activities considered as orange and 69 activities more broadly related to the cultural economy. The Ministry of Culture defines the orange economy as “a tool of cultural, social and economic development based on the creation, production and distribution of goods and services, whose cultural and creative content can be protected by intellectual property rights.” In its report, the DANE further specified that the definition covers activities that generate copyrights as well as trademarks and patents that are exclusively associated with activities of a cultural and creative nature. The orange economy is a priority for the Duque government, who set the objective to increase the contribution of these activities from 3.4% of GDP to 6% — as estimated by WIPO and Colombia’s National Copyright Directorate for the period 2000 to 2005 in its 2010 *Study on Assessing the Economic Contribution of the Copyright-Based Industries*. The National Development Plan 2018-2022 envisions the orange economy as increasing its yearly growth rate from 2.9% to 5.1% by 2022. Among the activities for the promotion of the cultural industry, the plan foresees updating the IP legal framework and the facilitation of commercialization and distribution activities to increase the economic impact of authors’ and creators’ activities. More broadly, the National Planning Department (DNP) has recognized the need for more comprehensive and relevant data on the economic impact of IP activities and the negative impact of counterfeiting and IP infringement. In a 2017 report on the future of the audiovisual sector in Colombia, the DNP estimated

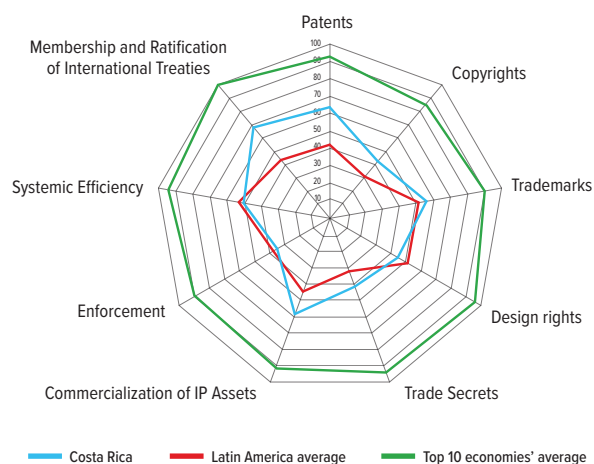
that piracy generated economic losses of over USD100 million per year in Colombia, while television signal piracy accounted for USD69 million of yearly economic losses.

Membership and Ratification of International Treaties

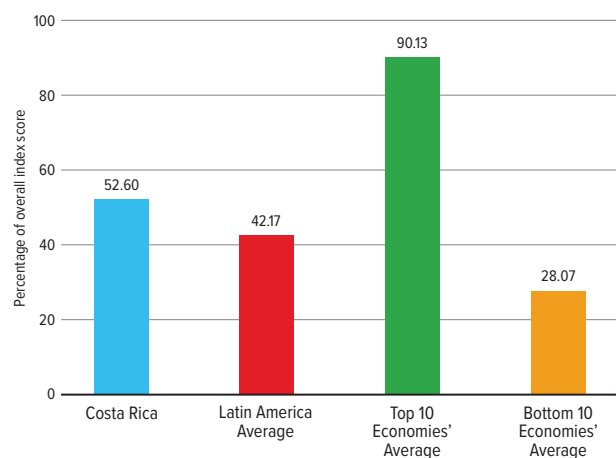
48. Membership of the Convention on Cybercrime, 2001: Colombia is taking the last steps to accede to the convention. Law 1928 of 2018, through which the convention is approved, was passed by the Colombian Congress and declared constitutional by the Constitutional Court in May 2019.

COSTA RICA RANK 25/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Member of the regional PROSUR PPH initiative
- ✓ Patent framework in line with international standards, with some exceptions
- ✓ Some elements of an advanced online copyright regime in law
- ✓ Customs authorities empowered to address various types of infringing goods *ex officio*
- ✓ Ongoing efforts to raise awareness and utilization of IP rights

KEY AREAS OF WEAKNESS

- ✗ No significant R&D or IP-based tax incentives in place
- ✗ Delays and significant lack of implementation of online copyright regime
- ✗ Gaps in effectiveness of life sciences IP rights
- ✗ System of enforcement of IP rights slow and lacks effectiveness
- ✗ Inadequate penalties for IP infringement
- ✗ Current copyright enforcement framework (including the lack of a notice and takedown mechanism) is insufficient to tackle online piracy, and is inconsistent with Costa Rica's international trade obligations

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		5.73	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.25
3. Patentability of computer-implemented inventions	0.75	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.25	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.48	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	0.50	18. Protection of well-known marks	0.50
9. Patent opposition	0.25	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
Category 2: Copyrights, Related Rights, and Limitations		2.99	
10. Copyright (and related rights) term of protection	0.74	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	0.40
		0.90	

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	1.25	Category 8: Systemic Efficiency	2.50
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	3.50	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	0.75	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	4.75
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.25
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	2.43	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.51	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.42	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.50		
TOTAL: 26.30			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Costa Rica's overall score has increased from 49.73% in the seventh edition (with a score of 22.38 out of 45) to 52.60% (with a score of 26.30 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index and a score increase on indicator 7.

Patents, Related Rights, and Limitations

7. Pharmaceutical patent term restoration: This year we have changed the methodology used to calculate the score on this indicator. This indicator now consists of two distinct variables: first, the existence of a term of patent restoration for pharmaceutical products due to the prolonged research, development, and regulatory approval periods for such products; and second the existence of any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration including for industrial policy purposes. Of the available score for this indicator, 0.75 is allocated for the existing term of protection compared to the current baseline rate of five years term restoration used

in the U.S., EU, and Japan. The remaining 0.25 is allocated on the basis of a given economy providing any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration including for industrial policy purposes. As a result of these changes, Costa Rica's score has increased to 0.48.

Copyrights, Related Rights, and Limitations

13. Availability of frameworks that promote cooperative action against online piracy: Decree No. 41557 from February 2019 shortens the 45-day delay previously allowed for the notice and takedown of pirated online content and replaces it with the requirement that ISPs act "expeditiously" (revised Articles 12 and 13 of Decree No. 36880). While efforts to expedite this process are a welcome development, the real effect of this improved provision will need to be seen through better application and enforcement. The Index will continue to monitor these developments in 2020.

Trademarks, Related Rights, and Limitations

18. Protection of well-known marks: According to guideline DPI 0003-201 issued by the Industrial Property Registry in July 2019, trademark owners can now request the registry to recognize their mark as “well-known” through a registration procedure similar to the one applied to any trademark, including with respect to the possibility of pre-grant opposition. Trademark owners will have to provide evidence that their trademark meets the notoriety criteria established in the Trademark Law (Article 45). While recognition of a well-known character through an administrative procedure might speed up judiciary proceedings, it is important to stress that (1) the protection of well-known trademarks should be recognized regardless of whether registration occurs, and (2) any registration procedure should be quick, efficient, and not hampered by any substantive backlog.

Enforcement

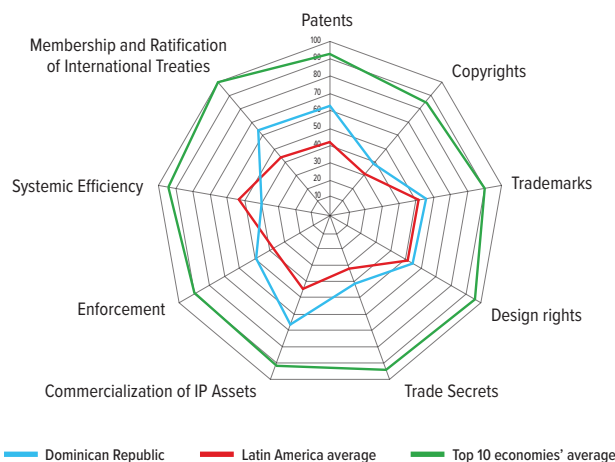
38. Transparency and public reporting by customs authorities of trade-related IP infringement; and 39. Coordination of IP rights enforcement efforts: Over the past few years, Costa Rica has taken steps to increase coordination on IP policy and enforcement, resulting in a significant increase in the number of criminal investigations and prosecutions. For instance, the Economic Crime Prosecutor and the Fiscal Control Police have agreed on coordination guidelines to increase their interoperability. The Costa Rican government has also started to publish statistics on the criminal enforcement of IP rights. According to this data, the number of cases solved increased from 74 in 2017 to 113 in 2018, while the number of cases received fell. Data on infringing products seized by the Fiscal Control Police per year and category is available on the Observatory of Illicit Trade of the Chamber of Commerce. However, no such seizure data is available for customs authorities. Transparency on customs activities and seizures statistics is vital to understanding and tackling the flows of counterfeits and piracy commerce. The publication of such annual and systematic customs statistics on seizures of IP-infringing goods, including the type of confiscated items and country of origin, would raise the score of Indicator 37.

Systemic Efficiency

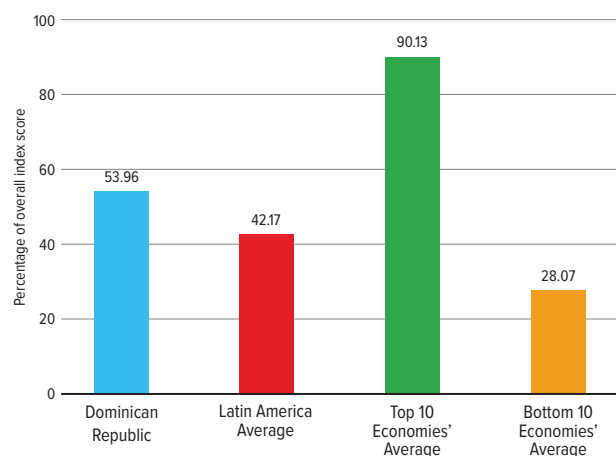
43. IP-intensive industries, national economic impact analysis: Policymakers are increasingly emphasizing the importance of developing high-tech and IP-intensive industries in Costa Rica through measuring their performance and economic impact. For example, an important life sciences cluster is focused on medical devices, which account for 23% of the country’s total exports. In addition to export value, the Costa Rican Investment Promotion Agency tracks the number of medical devices companies—about 70 out of a total of 250 high-tech manufacturing sites—their employees, and productivity. Costa Rica has also created a statistical information system (Culture Satellite Account) within the Ministry of Culture and Youth aimed to show the contribution of the creative economy and cultural industries to national output. This account gathers data on cultural production, demand, imports and exports, employment, and contribution to national GDP. The work is steered by an Inter-Institutional Commission that includes the Ministry of Culture and Youth, the Central Bank, the National Institute of Statistics and Census, and the Technological Institute of Costa Rica. The system is based on a common methodology developed with support by the Inter-American Development Bank and adopted by other Latin American countries like Argentina, Chile, Colombia, and Mexico. The data collected so far shows that the cultural industries (editorial, audiovisual, advertising, design, and cultural and artistic education) accounted for 2.3% of national GDP in 2012.

DOMINICAN REPUBLIC RANK 24/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ CAFTA membership fundamentally improved national IP environment
- ✓ Many IP rights in place *de jure* through CAFTA but not actively implemented
- ✓ Member of PROSUR regional PPH
- ✓ Plant variety protection in place
- ✓ No evidence of active government intervention in technology transfer or licensing
- ✓ Fairly strong legal requirements and administrative practices on public consultations

KEY AREAS OF WEAKNESS

- ✗ Patentability standards outside international norms—no second use claims for biopharmaceuticals and virtually no patent protection for computer-implemented inventions
- ✗ RDP term not being granted although required by law
- ✗ Enforcement of copyright highly challenging and one of the main reasons the Dominican Republic has remained on the USTR's Watch List for years
- ✗ Infringement of copyright through signal piracy, online piracy, and web-based streaming highly pervasive and constitutes a major source of illegal content—not effectively addressed by the Dominican government
- ✗ Reports suggest customs authorities are not taking effective action against suspected infringing goods
- ✗ Persistently high levels of piracy—estimated 75% software piracy rate

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		5.70	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.25	13. Availability of frameworks that promote cooperative action against online piracy	0.25
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.70	2.25	
8. Membership of the Patent Prosecution Highway (PPH)	0.50	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.50	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
2.74		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.74	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	1.10	
		21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.75
Category 5: Trade Secrets and the Protection of Confidential Information	1.25	Category 8: Systemic Efficiency	2.00
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	4.00	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	4.50
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	3.44	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.44	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.25	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.50		
TOTAL: 26.98			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

2. Patentability requirements; and 3. Patentability of computer-implemented inventions (CIIs): Patentability standards in the Dominican Republic are largely outside of international standards. Article 2(1) of Law No. 20-00 2000 excludes both computer software and second use claims for biopharmaceuticals. On the latter both formal patent office guidelines and legal practice suggest that the National Office of Industrial Property (*Oficina Nacional de la Propiedad Industrial* [ONAPI]) does not accept any type of second use claims. The interregional patent manual used by Central American IP offices (*Manual de Organización y Examen de Solicitudes de Patentes de Invención*) explicitly notes that the Dominican Republic excludes second use claims as patentable subject matter. Local legal practice notes echo these findings, showing several key cases in which second use claims have been denied by the ONAPI. Regarding CIIs, computer software is explicitly excluded under Article 2(1) of Law No. 20-00. The relevant parts of the Central American patent manual

do not explicitly discuss the extent to which CIIs and computer software having a technical effect are patentable. Still, local legal analysis suggests that computer software is primarily protected through copyright in the Dominican Republic. This is corroborated by examining rates of patent applications. WIPO patent statistics for the Dominican Republic show a very small number of patent applications have historically been filed under the categories “Computer technology” or “IT methods for management.” Between 1980 and 2017, 14 patent applications were published under the categories “Computer technology” and “IT methods for management.” This compares to a total number of 3,801 total applications during this time period, or 0.37% of the total number of applications published. Data is not available for the number of applications that were granted during this time period. Finally, patent prosecution in the Dominican Republic is characterized by long delays and a significant backlog. To address this, in 2016 the ONAPI introduced a priority review mechanism and added additional examiners. Patent term restoration is available for delays with Law No.

424-06, offering a term of restoration for delays in patent prosecution. However, industry sources suggest that although it exists in law, the period of restoration has, for all intents and purposes, become unavailable; the ONAPI rejects applications for patent applications filed before 2008 even though these patents were not granted until after 2008 and the entry into force of the term restoration provisions.

5. Pharmaceutical-related patent enforcement and

resolution mechanism: CAFTA introduced a linkage system between the patent status of a reference biopharmaceutical product and the approval of follow-on generic products. Under Article 32 of the Dominican Republic's implementing legislation, Law No. 424-06, which also amends Article 181 of Law No. 20-00, a clear process is outlined whereby follow-on applicants must include notarized documentation that there is no existing patent exclusivity on any reference product the application is relying on. However, it is not clear if the Dominican drug regulatory authority is consistently applying this law. Industry sources suggest that as of 2012 there was no effective implementation of Article 181.

Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking);

12. Expeditious injunctive-style relief and disabling of infringing content online; and 13. Availability of frameworks that promote cooperative action against online piracy: Articles 19-20 of Law No. 65-00 2000 (as amended by Law No. 424-06 2006) outline rights-holders' exclusive economic rights, which include the right of distribution, reproduction, transmission, communication to the public, and other related rights. There is no direct mention of or reference to the online environment, including streaming, caching, or web linking. The law does not include an injunctive-relief-style mechanism for the disabling of infringing content. Copyright enforcement can take place both through the courts and administratively through the copyright office (ONDA). However, in practical terms the enforcement of copyright is highly challenging and is one of the main reasons the Dominican Republic has remained on the USTR's Watch List for years. The infringement of copyright through signal piracy, online

piracy, and web-based streaming is highly pervasive and constitutes a major source of illegal content in the Dominican Republic. The issue of signal piracy has been brought up numerous times by international rights-holders and the U.S. government, and Dominican authorities have repeatedly committed to more effectively enforce copyright and address this issue but have thus far failed to do so. Such a commitment was, for example, made in a side letter between the United States and the Dominican Republic in 2004 during the conclusion of the CAFTA. While there are recent examples of administrative action to suspend illicit streaming services, it has not been carried out on the basis of enforcing copyright law. For example, in 2019 the telecommunications regulator Indotel suspended the operations of streaming service provider Blue Max, a notorious source of illegal, copyright-infringing material. The suspension was due not to Blue Max's offering of copyright-infringing material but to a lack of a valid operational license. Similarly, there are examples of ONDA ordering or mediating between infringers and rights-holders on signal piracy, but this mechanism/process is not systematic or consistently applied. For example, in recent years ONDA has intervened and ordered a local cable service provider to stop broadcasting Univision content without a license/agreement with the latter. ONDA has also intervened and mediated in a dispute between a local hotel and the Producer Rights Management Entity of the Dominican Republic (*EGEDA-Dominicana*). Similarly, there is no notification regime in place under existing copyright statute. Article 15.11, Paragraph 27 (Limitations on Liability for Service Providers) of the CAFTA provides a detailed description of a notification regime for rights-holders and provides safe harbor to ISPs upon "expeditiously removing or disabling access, on receipt of an effective notification of claimed infringement" to infringing content. This has, however, not been implemented.

Enforcement

37. Effective border measures: Article 185 of the Copyright Law (Law No. 65-00 2000) provides a clear *ex officio* authority for customs officials to take action against suspected infringing goods. Since 2010 rights-holders have also been able to register their rights with the Dominican customs agency (*Dirección General de Aduanas* [DGA]). Furthermore, CAFTA Article 15.11, Paragraph 23 includes a clear and unambiguous requirement that customs officials

be given *ex officio* authority to act against suspected goods regardless of whether they are meant for the domestic market or are in transit: “Each Party shall provide that its competent authorities may initiate border measures *ex officio*, with respect to imported, exported, or in-transit merchandise suspected of infringing an intellectual property right, without the need for a formal complaint from a private party or right holder.” The 2019 Law No. 17-19 on the Eradication of Illicit Trade, Smuggling and Counterfeiting Regulated Products seeks to strengthen the enforcement environment, particularly against counterfeit and illicit products, including medicines. However, while the legal environment is clear, the DGA has been criticized by rights-holders and the U.S. government for failing to act more effectively against counterfeiting. In 2019 the USTR stated, “Stakeholders have reported that the [Dominican] Customs Authority lacks adequate storage space for seized counterfeit goods. Moreover, some stakeholders have also recounted that the Customs Authority requests that right holders pay to destroy seized counterfeit goods, and returns the seized goods to importers if payment is not received.”

38. Transparency and public reporting by customs

authorities of trade-related IP infringement: In its annual report, the DGA includes detailed data on the seizure of counterfeit goods. For the latest available report (2018), this data includes categorization of the main types of goods seized and units seized. The report does not, however, include information on the country of origin for the infringing goods. In addition, the DGA periodically publishes on its websites press releases on seizure and enforcement activity relating to the infringement of IP rights.

Systemic Efficiency

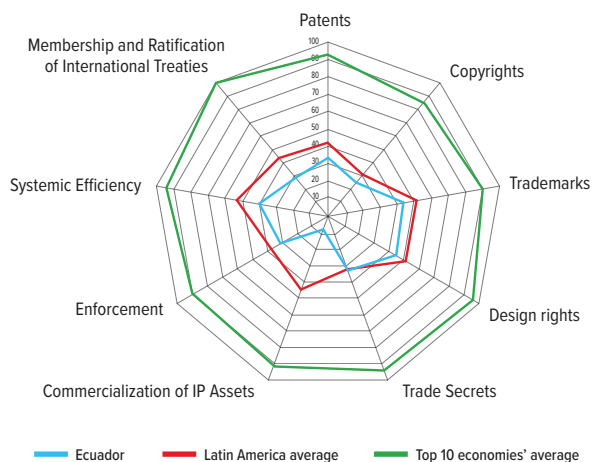
43. IP-intensive industries, national economic impact

analysis: No agency or department within the Dominican government has a dedicated program or entity that seeks to map and measure the economic impact and importance of IP-intensive industries to the national economy. Several institutions and initiatives have been created with the view of stimulating IP-based economic activity and measuring existing outputs. This includes the “Innovate” program (which is part of the National Development Plan) run by the National Competitiveness Council under the Ministry of Industry and Commerce. The program seeks

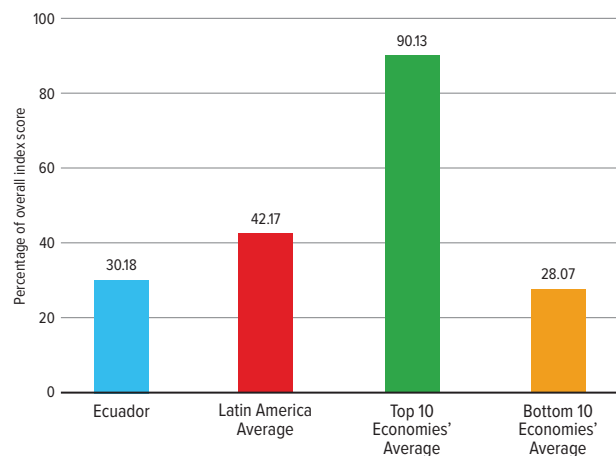
to incentivize the creation of new IP assets; innovation; and the development, use, and commercialization of new technologies within existing industries. In 2018 the National Statistics Office announced that it would begin working on a steering document with the view of preparing and launching a “Recurring Innovation Survey.” The purpose of the survey would be to gather national data on the status of innovation-related activities in the Dominican Republic with the view of better informing policy decisions. The initiative is part of the broader National Development Strategy and the presidential “Year of National Innovation and Competitiveness.”

ECUADOR RANK 47/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ National IP authority SENADI ordered local ISPs to disable access to several websites hosting infringing and unlicensed content in 2019
- ✓ Five-year term of RDP defined in 2016 law *Código Ingenios*
- ✓ Limited re-criminalization of IP rights through 2016 criminal law amendments
- ✓ Member of a PPH

KEY AREAS OF WEAKNESS

- ✗ Plant variety protection term shorter than internationally accepted term
- ✗ Substantial barriers in place for licensing activities, including direct government intervention and review of technology transfer and licensing agreements
- ✗ Key life sciences IP rights missing, including patent term restoration and mechanisms for early patent dispute resolution
- ✗ Use of compulsory license regime for biopharmaceuticals as basis for cost containment and industrial policy
- ✗ *Código Ingenios* imposes new limits on patentability and increases types of nonpatentable subject matter
- ✗ Persistently high levels of piracy—estimated 68% software piracy rate
- ✗ Code of the Social Economy of Knowledge, Creativity, and Innovation (COESCI) grants broad exceptions and limitations to copyright, including “fair use.”
- ✗ Lack of participation in and ratification of international treaties

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		2.99	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	0.74	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	1.75	
8. Membership of the Patent Prosecution Highway (PPH)	0.50	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.25	18. Protection of well-known marks	0.25
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
1.74		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.74	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	0.90	
		21. Industrial design term of protection	0.40

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	1.00	Category 8: Systemic Efficiency	2.00
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.25
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	0.50	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	0.00	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.25	Category 9: Membership and Ratification of International Treaties	2.00
28. Registration and disclosure requirements of licensing deals	0.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.25	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	2.21	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.39	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.32	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.50
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.50		
TOTAL: 15.09			

Spotlight on the National IP Environment

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Ecuador's overall score has increased from 27.44% (12.35 out of 45) in the seventh edition to 30.18% (15.09 out of 50) in the eighth edition. Despite a weak performance on the new indicators included in the Index, Ecuador's rise was driven by a score increase on Indicator 12 and the correction of an incorrect score on Indicator 17 that had been erroneously reduced to 0 in past editions.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Article 485 of the 2016 *Código Ingenios* provides a term of protection of 18 years for trees and vines and 15 years for all other plant varieties. This is notably less than the baseline term of protection of 20 years (25 years for trees and vines) used by the Index in accordance with the International Convention for the Protection of New Varieties of Plants, 1991.

Copyrights, Related Rights, and Limitations

12. Expeditious injunctive-style relief and disabling of infringing content online: In June 2019 the Ecuadorian national IP authority SENADI ordered local ISPs to disable access to several websites hosting infringing and unlicensed content. The administrative order followed a request made by local rights-holders Fox Latin America and the Spanish national soccer league *Liga Nacional de Fútbol Profesional (La Liga)*. The order is a first in Ecuador and marks a positive step in what has been traditionally a challenging copyright environment for rights-holders. SENADI justified its decision and authority with reference to the 2016 *Código Ingenios* and the Telecommunications Act. Although no specific article in the *Código* pertains to the disabling of infringing content or describes how this administrative mechanism should work, SENADI cited the broad administrative enforcement powers given to it under Article 10 of the law. It is hoped that this administrative enforcement route will now be available to rights-holders more broadly and provide a clear and expeditious path for

creators to effectively enforce their IP rights. Because of this action, the score on this indicator has increased by 0.25.

Trademarks, Related Rights, and Limitations

CORRECTION OF ERROR, 17. Trademarks term of protection (renewal periods): As noted in previous editions of the Index, in October 2016 Ecuador's National Assembly passed the *Código Ingenios*, a law that touches on all facets of IP rights, including trademark law. Prior to this law the old Intellectual Property Law provided a 10-year renewable term of protection for trademarks. Article 365 of the *Código Ingenios* retained this right of indefinite renewal. The article in its original Spanish reads, "*La adquisición de una marca tendrá una duración de diez años contados a partir de la fecha de su concesión y podrá renovarse por períodos sucesivos de diez años.*" Unfortunately, due to a translation error this was not recognized by the Index and Ecuador's score on this indicator was reduced from 1 to 0. This error has now been rectified and Ecuador's score on this indicator has been reversed from 0 to 1. We apologize.

Systemic Efficiency

43. IP-intensive industries, national economic impact

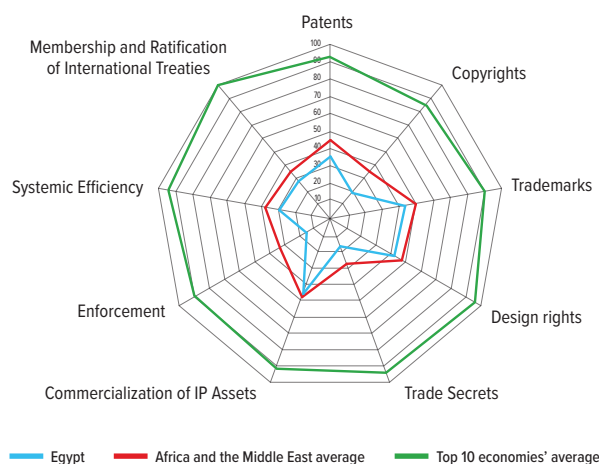
analysis: The government of Ecuador does not have in place a systematic research program examining the relationship between IP rights and economic activity. Although both SENADI and its predecessor, the Ecuadorian Institute of Intellectual Property (IEPI), have placed a strong emphasis on economic development and innovation through its public mission statements and relevant guiding legislation (including the *Código Ingenios*), neither institution sponsored or commissioned relevant research examining the economic impact that IP rights have on the national economy or Ecuador's international competitiveness. Other government institutions, including the Centre for Fiscal Studies (*Centro de Estudios Fiscales*), have not focused specifically on IP rights in their economic research. Still, there are examples of sector-specific studies of the economic impact that IP-intensive industries have in Ecuador. For example, in 2017 WIPO supported the research and publication of *The Economic Contribution of Copyright Industries in the Republic of Ecuador*. The study was carried out by local researchers and the research was supported by the IEPI, the Ecuadorian Central Bank, and the National Institute of Statistics.

Membership and Ratification of International Treaties

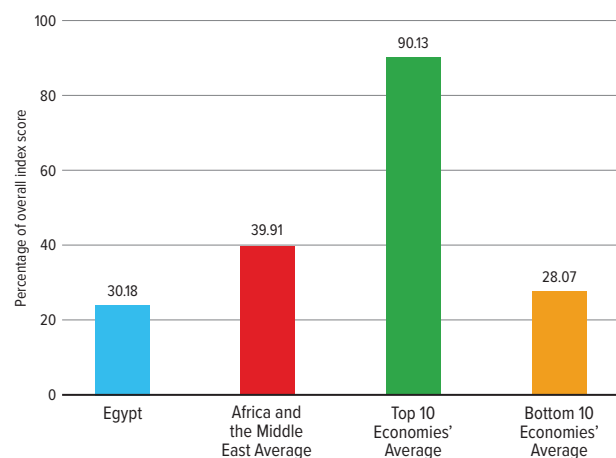
Ecuador has a low score for its participation in and ratification of international treaties. Ecuador has signed and ratified the WIPO Internet Treaties and is a contracting party to the Patent Cooperation Treaty. In November 2016 Ecuador also formally acceded to the EU's Trade Agreement with Colombia and Peru. This treaty is in provisional application. As of late 2019, the EU was still in the ratification process; at the time of research, six EU Member States had yet to ratify Ecuador's accession. Ecuador is not a contracting party to the Singapore Treaty on the Law on Trademarks; the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; the Patent Law Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991 (Ecuador is a contracting party to the 1978 Convention); the Convention on Cybercrime, 2001; or the Hague Agreement Concerning the International Registration of Industrial Designs.

EGYPT RANK 47/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Plant variety protection in place with a UPOV compliant term of protection offered
- ✓ PPH has been in place with the JPO since 2015
- ✓ Relative freedom to patent computer-implemented inventions and support from government agencies
- ✓ Relatively strong push from the government to raise awareness of the dangers of counterfeit products, particularly medicines

KEY AREAS OF WEAKNESS

- ✗ Limited framework for the protection of life sciences IP rights
- ✗ Gaps in copyright law and framework, particularly regarding protection of content online
- ✗ High levels of piracy—BSA estimated 59% software piracy rate
- ✗ Challenging enforcement environment and lack of border measures

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.25	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.50	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 4: Design Rights, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	0.50	18. Protection of well-known marks	0.25
9. Patent opposition	0.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
Category 2: Copyrights, Related Rights, and Limitations		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.38	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	1.50
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.25
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.25
Category 6: Commercialization of IP Assets	2.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	0.75	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	2.00
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	0.00
29. Direct government intervention in setting licensing terms	0.50	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.11	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.20	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.41	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.00		
TOTAL: 15.09			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Egypt's overall score has increased from 26.29% (11.83 out of 45) in the seventh edition to 30.18% (15.09 out of 50) in the eighth edition. This was primarily driven by a good performance on many of the new indicators added to the Index.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Article 193 of the Law 82 2002 (Pertaining to the Protection of Intellectual Property Rights) provides a term of protection of 25 years for trees and vines and 20 years for all other plant varieties. In July 2019 the Egyptian Parliament passed amendments to relevant sections of Law 82 with the view of making the law, and administering authority, compliant with the 1991 UPOV treaty. Reports suggest that Egypt was in the process of formally joining the International Convention for the Protection of New Varieties of Plants. At the time of research accession had not been formalized.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: The government of Egypt does not have in place a systematic research program examining the relationship between IP rights and economic activity. There is a growing focus within the government on economic diversification and the development of science and technology-based industries. For example, like many economies in the Middle East, Egypt has a “Vision 2030” program. This vision includes a clear aspiration of developing R&D-based economic activity and innovation. However, there is no concrete program, research, or explicit link to IP rights. There are some examples of ad hoc, sector-specific studies that the government has supported or worked together with other international institutions that study the economic impact of IP-intensive industries. For example, in 2014 WIPO supported the research and publication of *The Egyptian Information Technology Sector and the Role of Intellectual Property:*

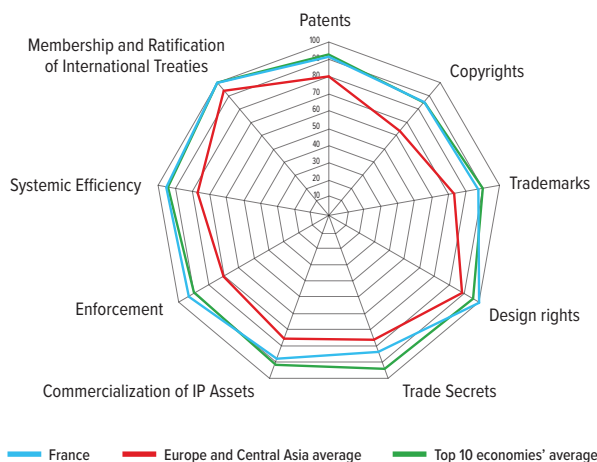
Economic Assessment and Recommendations. The project was supported by the Egyptian government and the Ministry for Communications and Information Technology.

Membership and Ratification of International Treaties

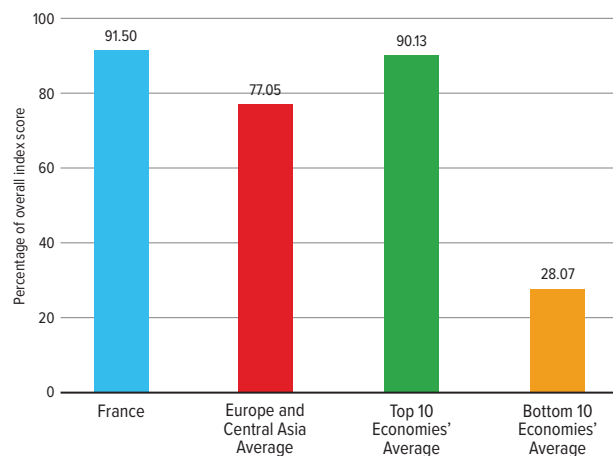
Egypt's overall score on this category has improved quite substantially, rising from 0 to 2 because of the increased number of international treaties included in the Index. Egypt is a contracting party to the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, the Patent Cooperation Treaty, and the Hague Agreement Concerning the International Registration of Industrial Designs. Egypt is not a contracting party to the WIPO Internet Treaties; the Singapore Treaty on the Law on Trademarks; the Patent Law Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991 (at the time of research Egypt remained in the application process); or the Convention on Cybercrime. Finally, Egypt is a contracting party to the African Continental Free Trade Area, signed by 44 African countries in March 2018. The agreement could fundamentally revolutionize economic activity in Africa by reducing barriers to trade and economic interaction across the entire continent. Parts of the Free Trade Area (Phase I) came into force in June 2019 and are now operational in a handful of economies—including Egypt, which acceded in May 2019. Reports suggest that Phase II discussions (which include IP-related negotiations) are set to begin soon and potentially conclude in 2020.

FRANCE RANK 3/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Generous R&D and IP-specific tax incentives in place through an R&D tax credit and special patent box tax rate on income derived from qualifying licensing income and/or the sale of the patent or patentable technology
- ✓ Injunctive relief available and in use through court orders for the disabling of infringing content online
- ✓ Strong and sophisticated national IP environment

KEY AREAS OF WEAKNESS

- ✗ Registration requirements for licensing agreements
- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to France's and EU's research and IP-based biopharma industry

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		8.25	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.75
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	1.00
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.75
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	3.50	
8. Membership of the Patent Prosecution Highway (PPH)	1.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	1.00	18. Protection of well-known marks	1.00
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
5.99		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.74	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.75	2.00	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.50	Category 8: Systemic Efficiency	4.75
23. Protection of trade secrets (civil remedies)	0.75	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.75	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	5.25	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	6.51	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.83	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.68	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	1.00		
36. Criminal standards including minimum imprisonment and minimum fines	1.00		
37. Effective border measures	1.00		
TOTAL: 45.75			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

France's overall score has increased slightly from 91.10% (41.0 out of 45) in the seventh edition to 91.50% (45.75 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index but a score decrease on Indicator 7.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Article 623(13) of Code 35 (the Intellectual Property Code) provides a term of protection of 30 years for fruits, trees, and vines, and a period of 20 years for all other plant varieties.

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration

for biopharmaceuticals, so-called “Supplementary Protection Certificates.” One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an “SPC exemption.” The overriding purpose of the proposal was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the

largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, "If the European Union is weakening

IP standards to benefit its domestic industries, why shouldn't we do the same?" Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK, all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish Government's perceptive criticism of the policy: "While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**" [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, France included.

Systemic Efficiency

43. IP-intensive industries, national economic impact

analysis: As a Member State of the European Union and contracting party to the European Patent Convention, the French government takes part in the multitude of research efforts conducted by European institutions. A whole swathe of EU institutions study the economic impact of IP-intensive industries in Europe. Major institutions that publish studies and research on various aspects of the economics of IP-intensive industries include the EPO, EUIPO, EUROSTAT, and the European Commission. The latest such study is the *2019 IPR-Intensive Industries and Economic Performance in the European Union* published by the EUIPO and EPO. This study found that IP-intensive industries contributed

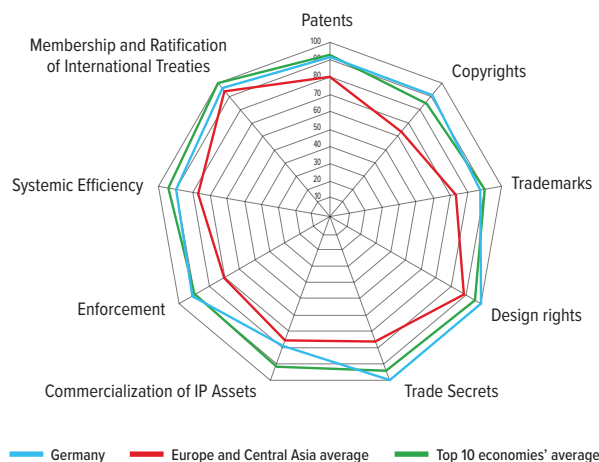
an estimated 42.9% of French GDP, on average, in the time period 2014-16. Similarly, with respect to employment, an estimated 24.5% of the French labor force worked in IP-intensive industries. Relevant institutions in France, such as the National Institute of Industrial Property (INPI), have a similar interest and research programs in place. For example, the INPI has recently supported the research and publication of a study on the digital economy, innovation, economic activity, and IP rights (*La propriété intellectuelle & la transformation numérique de l'économie*) in 2015. WIPO has also supported the research and publication of a 2016 study of the economic impact of the copyright sector in France, *The Economic Contribution of Copyright Industries in France*.

Membership and Ratification of International Treaties

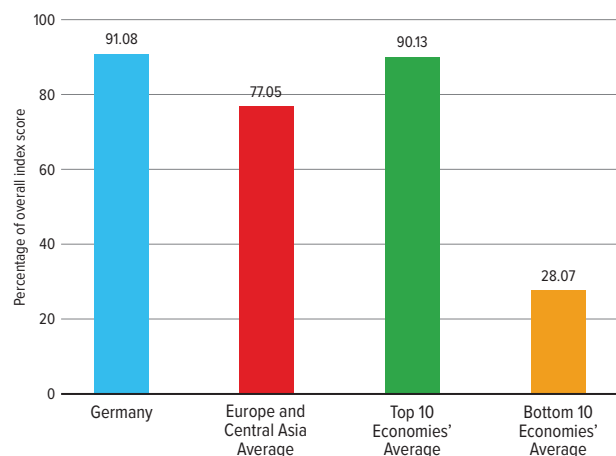
France achieves a perfect, 100% score of 7 on this category. France is a member of all treaties included and measured in the Index.

GERMANY RANK 4/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Advanced and sophisticated national IP environment
- ✓ Sector-specific IP rights in place
- ✓ Membership in all major international PPH tracks through the national patent office and EPO

KEY AREAS OF WEAKNESS

- ✗ Unlike most OECD economies, has no R&D- or IP-specific tax incentives in place
- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Germany's and EU's research and IP-based biopharma industry
- ✗ Patent Law Treaty signed but not ratified

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	1.00
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.75
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 4: Design Rights, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	1.00
9. Patent opposition	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
Category 2: Copyrights, Related Rights, and Limitations		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.63	21. Industrial design term of protection	1.00
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	1.00		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	3.00	Category 8: Systemic Efficiency	4.50
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	1.00	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	4.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	6.75
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	6.41	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.86	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.80	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.75		
36. Criminal standards including minimum imprisonment and minimum fines	1.00		
37. Effective border measures	1.00		
TOTAL: 45.54			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Germany's overall score has increased from 90.09% (40.54 out of 45) in the seventh edition to 91.08% (45.54 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index despite a score decrease on Indicator 7.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Section 13 of the Plant Variety Act provides a term of protection of 30 years for trees and vines and 25 years for other plant varieties.

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called "Supplementary

Protection Certificates." One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an "SPC exemption." The overriding purpose of the proposal was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world.

Not only does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, "If the European Union is weakening IP standards to benefit its domestic industries, why shouldn't we do the same?" Overall, instead

of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK, all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish Government's perceptive criticism of the policy: "While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**" [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, Germany included.

Commercialization of IP Assets and Market Access

31. Tax incentives for the creation of IP assets: As noted in previous editions of the Index, German tax law does not offer any R&D-based or IP-specific incentives. Instead, German R&D incentives are focused on nonrepayable R&D grants. These grants normally make up 50% of a given project, with higher levels available for SMEs. Applications are made directly to the German federal government, which is now concentrating its R&D efforts and grants through the national innovation plan High Tech Strategy 2025 (*Hightech Strategie 2025*). Similar R&D grant schemes are available at the provincial and regional levels, with industry focus and eligibility requirements varying among jurisdictions. At the time of research, the German Federal Parliament (*Bundestag*) was considering a draft bill seeking to introduce a limited R&D tax incentive (*Forschungszulage*).

The proposed incentive would allow companies to be reimbursed a portion (up to 25%) of qualifying R&D expenditure. While the introduction of any type of R&D tax incentive would be a positive step, the proposed measure is rather limited. To begin with, there is an annual cap per qualifying entity of EUR500,000. And unlike a growing number of economies around the world (including, most recently, Switzerland and Singapore), there is also no proposal for introducing an IP-asset-specific innovation or patent box incentive.

Systemic Efficiency

43. IP-intensive industries, national economic impact

analysis: Various German government departments and agencies are engaged in understanding and measuring the impact IP rights have on economic activity. For example, the Federal Ministry for Economic Affairs and Energy (*Bundesministeriums für Wirtschaft und Energie*) has a long-standing and strong research interest in understanding the drivers of the German economy. The ministry has sponsored several general and sector-specific studies measuring and examining the relationship between IP rights and economic impact. For example, in 2009 the ministry commissioned a survey of the use of IP rights by SMEs and the growing value of IP rights and intangible assets to German industry. More recently, the ministry has sponsored the annual measurement of the size and growth of the creative industries in Germany. The report series—*Monitoringbericht Kultur- und Kreativwirtschaft*—has been supported by the ministry since the mid-2010s. The latest available edition is from 2018. As a Member State of the European Union and contracting party to European Patent Convention, the German government also takes part in the multitude of research efforts conducted by European institutions. A whole swathe of European institutions study the economic impact of IP-intensive industries in the EU and Europe. Major institutions that publish studies and research on various aspects of the economics of IP-intensive industries include the EPO, EUIPO, EUROSTAT, and the European Commission. The latest such study is the *2019 IPR-Intensive Industries and Economic Performance in the European Union* published by the EUIPO and EPO. This study found that IP-intensive industries contributed an estimated 49.9% of German GDP, on average, in the time period 2014-16. Similarly, with respect to employment, an

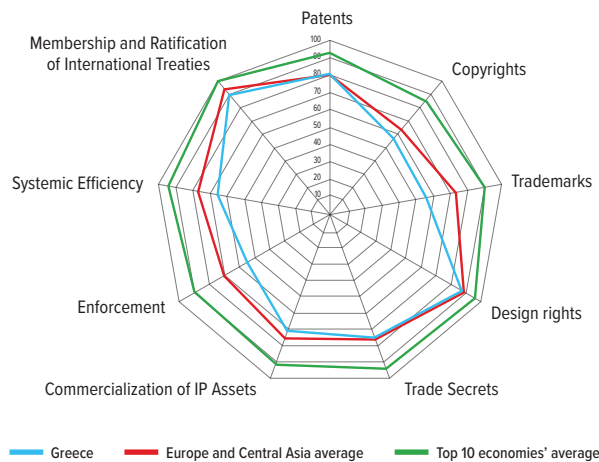
estimated 33.3% of the German labor force worked in IP-intensive industries.

Membership and Ratification of International Treaties

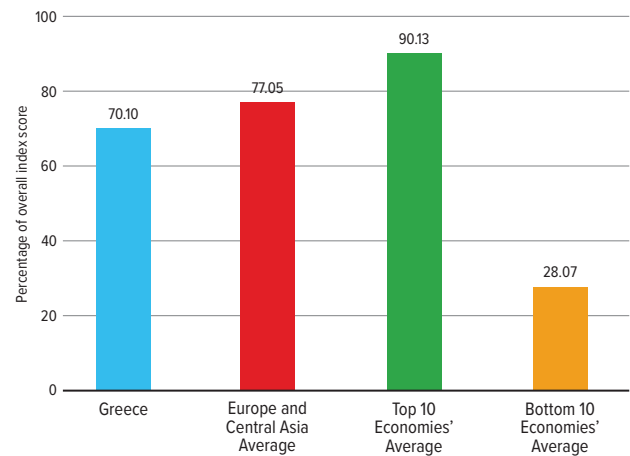
Germany is a signatory and contracting party to all but one of the treaties included in the IP Index. Germany signed up to the Patent Law Treaty in 2001 but has not acceded or formally ratified it.

GREECE RANK 19/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Relatively strong national IP environment—Greece benefits from EU membership and being a contracting party to the European Patent Convention
- ✓ Many sector-specific IP rights in place
- ✓ Stronger copyright enforcement through administrative relief and disabling of infringing websites—new Committee for Online Copyright Infringement
- ✓ Membership in all major international PPH tracks through the EPO

KEY AREAS OF WEAKNESS

- ✗ Changes in 2019 to compulsory licensing regime out of line with international standards—introduces price considerations as a basis for issuing license
- ✗ Very high levels of online piracy and software piracy for an EU and OECD Member State
- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Greece's and EU's research and IP based biopharma industry
- ✗ Registration requirement for licensing deals

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations	7.25	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
1. Patent term of protection	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.50
2. Patentability requirements	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.75
3. Patentability of computer-implemented inventions	1.00	15. Digital rights management legislation	0.50
4. Plant variety protection, term of protection	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	Category 3: Trademarks, Related Rights, and Limitations	2.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	0.75	18. Protection of well-known marks	0.50
8. Membership of the Patent Prosecution Highway (PPH)	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
9. Patent opposition	1.00	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
Category 2: Copyrights, Related Rights, and Limitations	3.99	Category 4: Design Rights, Related Rights, and Limitations	1.75
10. Copyright (and related rights) term of protection	0.74	21. Industrial design term of protection	1.00
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.25	Category 8: Systemic Efficiency	3.25
23. Protection of trade secrets (civil remedies)	0.75	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.50	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	4.25	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	6.25
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	3.81	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.42	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.39	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	1.00		
TOTAL: 35.05			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

3. Patentability of computer-implemented inventions

(CIIIs): As in most contracting states to the European Patent Convention (EPC), software patents are excluded as such under Greek patent law and the EPC, and not granted by the EPO. Article 5 of the Greek Law 1733/1987 explicitly excludes computer programs as patentable subject matter. CIIIs are, however, patentable subject matter and granted regularly by the Greek authorities and the EPO. For example, WIPO's statistics database shows that patent applications for "Computer technology" and "IT methods for management" are both filed with the Greek authorities and granted.

6. Legislative criteria and use of compulsory licensing of patented products and technologies:

In 2019 Greece amended its patent law and provisions relating to compulsory licensing. Under Article 14 of Law 4605/2019, a compulsory license may be issued "for compelling reasons of public interest." Paragraph 2 explains under

what conditions a license could be issued: "Public interest grounds arise where: (a) patented products or production methods are made available to the public in insufficient quantity, quality, or at abnormally high prices relative to the prices of like products on like markets; (b) the exploitation of the said patent is for public health reasons; (c) the exploitation of a patent constitutes an act of unfair competition; (d) the patent is necessary to comply with a standard that serves the public interest." These amendments use price considerations and cost as a basis for the issuing for a compulsory license. Yet cost is not a relevant justification or basis for compulsory licensing under the TRIPS agreement. TRIPS Article 31, including the amendments introduced in the 2001 Doha Ministerial Declaration, and subsequent General Council decision allowing the export of medicines produced under a compulsory license (outlined in Paragraph 6), form the legal grounds for compulsory licensing for medicines. The chairman's statement accompanying the General Council decision (concerning Paragraph 6 of the Doha Declaration)

underscores that these provisions are not in any way intended for industrial or commercial objectives and, if used, it is expected that they would be aimed solely at protecting public health. In addition, Article 31 and the Doha Declaration suggest that compulsory licensing represents a “measure of last resort,” intended primarily for public health and humanitarian emergencies such as pandemics, and to be used only after all other options for negotiating pricing and supply have been exhausted. Local Greek legal analysis suggests that the purpose of the new legislation is to make compulsory licensing more attractive as a public policy tool. Subsequent to the amendment becoming law, a Greek law firm wrote in the UK trade magazine *Managing IP* that “the new law includes amendments and new provisions regarding compulsory licenses in an effort to make these more practical and attractive.”

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called “Supplementary Protection Certificates.” One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an “SPC exemption.” The overriding purpose of the proposal was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission’s proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe’s research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe’s biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been,

or are currently being, used by millions of patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission’s proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, “If the European Union is weakening IP standards to benefit its domestic industries, why shouldn’t we do the same?” Overall, instead of benefiting the European generics industry, the SPC exemption is

likely to hurt Europe’s research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK, all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe’s research-based industries. Of note is the Danish Government’s perceptive criticism of the policy: “While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**” [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, Greece included.

Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking);

12. Expeditious injunctive-style relief and disabling of infringing content online; and 13. Availability of frameworks that promote cooperative action against online piracy: Article 2 of Law 2121/1993 defines the exclusive economic rights attached to copyright. These include key rights such as the right of reproduction, distribution, and presentation to the public. Greek law also provides a notification regime in line with the EU’s E-Commerce Directive. Historically, Greece has been home to very high levels of online piracy, with limited to no practical remedial action available to rights-holders. In 2014 the industry group the International Intellectual Property Alliance stated, “Each of the copyright sectors—books, film,

music, software, and videogames—faces the challenge of Internet piracy in Greece that severely damages their legitimate markets.” Statistics from the Hellenic Copyright Organization suggest that copyright enforcement through the court process in Greece is difficult. Between 2010 and 2018, a clear majority of copyright infringing cases were either deferred or acquitted, with only a minority of alleged infringers convicted: On average, in the time period studied, 74 cases were either deferred or acquitted versus 26 cases in which there was a conviction. In other words, in close to three-quarters (73%) of copyright infringing cases brought to prosecution between 2010 and 2018, the defendant either received a deferred sentence or was acquitted. Furthermore, in most cases during this time period, the sentence was suspended. Fines assessed were also relatively low, with only a handful of cases seeing fines of EUR10,000 or more. Similarly, the BSA’s estimated rates of the use of unlicensed software suggest that since 2011 Greece has had a remarkably high rate of software piracy for an EU and OECD Member State. The rate has consistently stayed between 61% and 63% (in 2018 it was an estimated 61%). This compares with an average estimated rate of 26% for the rest of Western Europe. On estimated rates of unlicensed software, Greece is more comparable to economies outside of the EU in Asia, Latin America, and the Middle East and North Africa region, where average rates of unlicensed software use are closer to 60%. Over the past few years, the Greek government has attempted to address some of these shortcomings with new legislation aimed specifically at online piracy. Article 52 of Law 4418/2017 sets up what is essentially an administrative tribunal to review online copyright infringement cases, the Committee for Online Copyright Infringement, which is housed under the Ministry of Culture and Sports. Under Article 52 the committee has the right to hear cases on alleged infringement and, where infringement is found, order the relevant parties and ISPs/internet mediators to remove and/or disable access to the infringing materials. Critically, the committee has the authority to order the disabling of access to infringing content within Greece even if the server or host is located outside Greece. In November 2018 the committee issued its first substantive ruling ordering the disabling of access to 38 websites enabling or hosting infringing content, including *The Pirate Bay*. The committee’s actions are positive and should be applauded by rights-holders inside

and outside Greece. However, it remains to be seen how effective these orders will be. Unlike other economies in which a similar mechanism has been established, there is no dynamic element to the disabling of access orders. In effect, infringing sites and hosts can simply change their domain names, forcing rights-holders to repeat a similar process. Still, with the establishment of this committee and the exercise of its powers, Greece joins the growing number of economies that are using judicial or administrative mechanisms to effectively disable access to infringing content. The Index will continue to monitor the committee's actions in 2020.

16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed software:

Public procurement in Greece has been fundamentally revamped through Law 4412/2016 and Law 4413/2016. Both laws introduced standardized tendering and bid procedures where previously there had been a lack of central control and direction. All public procurement, including the purchasing of ICT-based goods and services, by Greek public entities is now publicized via the e-procurement portal KIMIS. However, despite these recent efforts, government, agencies, and public institutions have been criticized for not having policies and guidelines in place to ensure that licensed software is purchased and used. In its 2018 Special 301 submission, SA stated, "The Government of Greece should implement a policy requiring all government agencies to use properly licensed software. Consistent with government-led working group discussions, this policy should assign the General Inspector of Public Administration the responsibility of overseeing an audit of the government's use of software and the development of an awareness campaign to educate public officials about the risks associated with the use of unlicensed software. The adoption of effective, transparent, and verifiable software asset management procedures—through which government agencies conduct regular audits of the software they have installed to ensure, among other things, that all software in use is properly licensed—would also provide a powerful positive example to private enterprise." As mentioned, BSA's estimated rates of the use of unlicensed software suggest that since 2011 Greece has had a remarkably high rate of software piracy for an EU and OECD Member State. The

use of unlicensed software by public and private sectors alike is major challenge to rights-holders in Greece. Since the 2016 reforms, there is some evidence to suggest that Greek government tenders must include and specify the need for providing licensed software. For example, in a major 2019 tender issued by the Ministry of Education, Research, and Religion for the acquisition of services and goods for "upgrading of equipment for computer labs in secondary education," there is a clear specification and requirement that all supplied software be licensed. Article 10 of the tender requires that the "contractor states that in the performance of the supply he does not use unlicensed studies or products of third parties and therefore undertakes to be liable to third parties and the contracting authority for any copyright claims of third parties as well as to undertake to defend and defend the contracting authority against any third party claims or claims, cover solely any related costs (legal or extrajudicial), as well as recover any damages." However, such a clear and unambiguous requirement is not always formulated in other public tenders. There is also no evidence that Greek public institutions, as suggested by BSA, are actively and consistently auditing and managing their software to eliminate the risk of using unlicensed software.

Commercialization of IP Assets and Market Access

28. Registration and disclosure requirements of

licensing deals: Greece has a registration requirement for licensing deals. Article 12, Law 1733/1987 (including new amendments in 2019) states, "The patent holder may, by written agreement, grant his patent to third parties. All patent holders require the consent of the licensee. The license agreement is published in the Industrial Property Bulletin and comes into force on the date it is registered in the Patent Register." Similarly, Article 132 of the Trademark Law (Law 4072/2012) states, "A trade mark may be licensed for some or all of the goods or services for which it is registered in Greece and for the whole or part of the Greek Territory. A license may be exclusive or nonexclusive. Either the proprietor, under his/her statement, or the licensee, under the proprietor's authorization, inform the register of trademarks for the grant of a license." Local legal analysis suggests that registration is advisable and necessary for licenses to have effect against third parties. Relevant application and registration forms published by the Greek Trademark

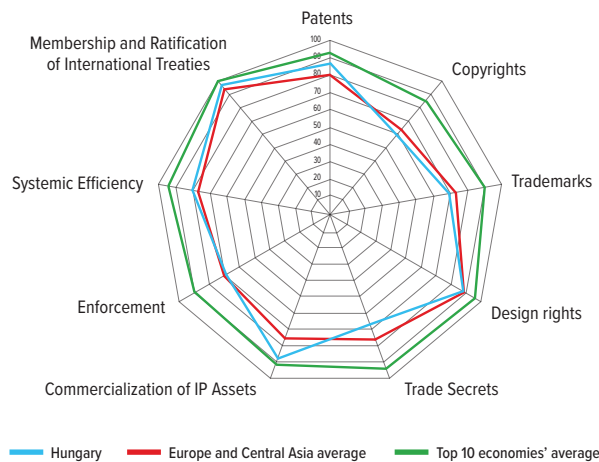
Office require applicants to submit the complete signed and executed agreement between the two parties.

Systemic Efficiency

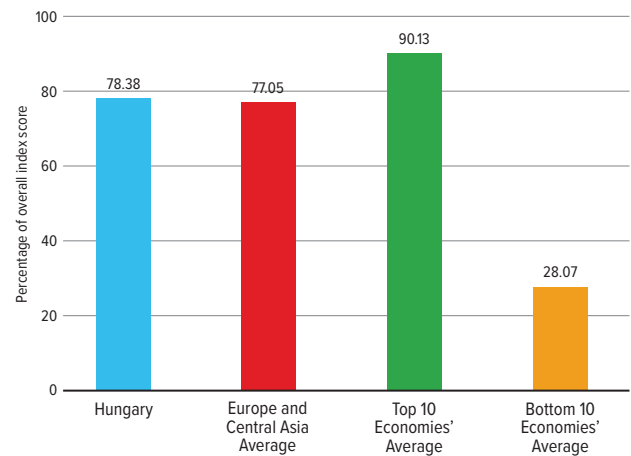
39. Coordination of IP rights enforcement efforts: Since 2017 the Coordination Center for Market Supervision and Trade Control (SYKEAP)—an entity placed under the Ministry of Development, Competitiveness, Infrastructure, Transport & Networks—has been charged with coordinating enforcement activities against all forms of illicit trade. Article 100 of Law 4497/2017 outlines the purpose of the center: “The purpose of SYKEAP is to co-ordinate and cooperate with the authorities responsible for dealing with illicit trafficking, such as the marketing of all kinds of goods, products and services that are in violation of the provisions of the Code of Trade Tax ... are counterfeit or are traded in violation of intellectual property rights or trademark laws.” Because SYKEAP has been operational only since 2018, there is limited information on what it has achieved and how it is carrying out its duties. The Index will continue to monitor the coordination of IP rights enforcement activities in Greece in 2020.

HUNGARY RANK 15/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Transposed the EU Trade Secrets Directive into Hungarian Law in a new trade secrets law
- ✓ Generous R&D and IP-specific tax incentives in place
- ✓ Fairly strong and sophisticated IP system conferred through EU membership
- ✓ Sector-specific IP rights in place

KEY AREAS OF WEAKNESS

- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Hungary's and EU's research and IP-based biopharma industry
- ✗ Challenging enforcement environment—particularly regarding online and digital content
- ✗ Consultation mechanisms in place, but time offered to make submissions relatively short

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		7.75	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
2. Patentability requirements	0.75	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	0.75	14. Scope of limitations and exceptions to copyrights and related rights	0.75
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	2.75	
8. Membership of the Patent Prosecution Highway (PPH)	1.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	1.00	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
4.13		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.63	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	1.75	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.00	Category 8: Systemic Efficiency	4.00
23. Protection of trade secrets (civil remedies)	0.75	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	5.25	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	6.75
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.75
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	4.81	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.67	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.64	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	1.00		
TOTAL: 39.19			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Hungary's overall score has increased from 75.96% (34.18 out of 45) in the seventh edition to 78.38% (39.19 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index despite a score decrease on Indicator 7.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Article 111 of Act XXXIII of 1995 on the Protection of Inventions by Patents provides a term of protection of 30 years for trees and vines and 25 years for all other plant varieties.

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called "Supplementary

Protection Certificates." One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an "SPC exemption." The overriding purpose of the proposal was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world.

Not only does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that, over time, other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, "If the European Union is weakening IP standards to benefit its domestic industries, why shouldn't we do the same?" Overall, instead

of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK, all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish Government's perceptive criticism of the policy: "While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**" [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, Hungary included.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: Various parts of the Hungarian government are engaged in understanding and measuring the impact IP rights have on economic activity. For example, the Hungarian Patent Office, Hungarian Central Statistical Office, and other related agencies have independently and together with WIPO supported several general and sector-specific studies measuring and examining the relationship between IP rights and economic impact. The Patent Office has been particularly active regarding the copyright-based industries; it published studies in 2004, 2010, and 2014. As a Member State of the European Union and contracting party to the European Patent Convention, the Hungarian government also takes part in the multitude of research efforts conducted by European institutions. A

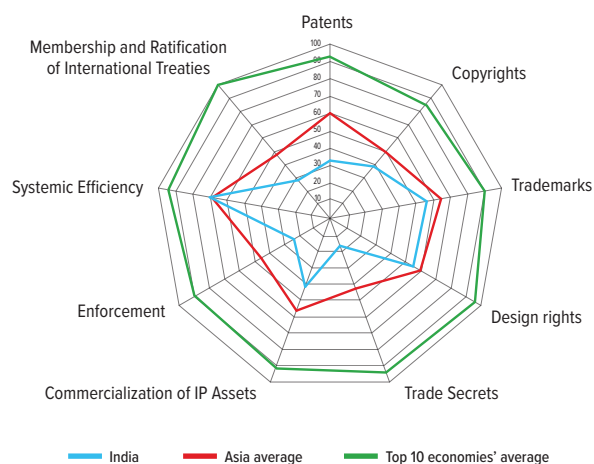
whole swathe of European institutions study the economic impact of IP-intensive industries in the EU and Europe. Major institutions that publish studies and research on various aspects of the economics of IP-intensive industries include the EPO, EUIPO, EUROSTAT, and the European Commission. The latest such study is the 2019 *IPR-Intensive Industries and Economic Performance in the European Union* published by the EUIPO and EPO. This study found that IP-intensive industries contributed an estimated 48.2% of Hungarian GDP, on average, in the time period 2014-16. Similarly, regarding employment, an estimated 30.8% of the Hungarian labor force worked in IP-intensive industries.

Membership and Ratification of International Treaties

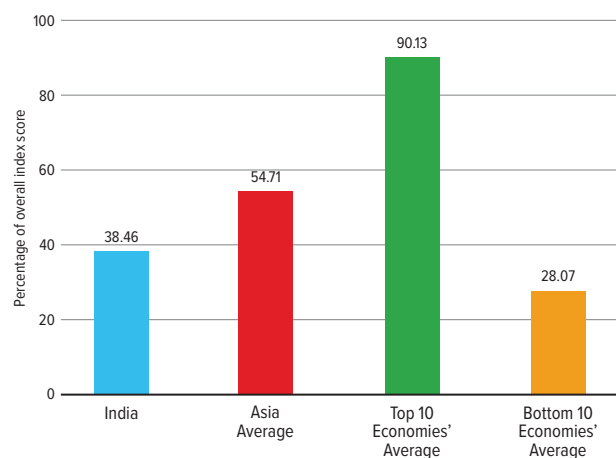
Hungary is a signatory and contracting party to all but one of the treaties included in the IP Index. Hungary signed up to the Singapore Treaty on the Law of Trademarks in 2006 but has not acceded or formally ratified it.

INDIA RANK 40/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Continued strong efforts to combat copyright piracy through the 2019 issuing of "dynamic" injunction orders
- ✓ 2019 precedent-setting case law on online trademark infringement and damages
- ✓ New pilot PPH program with the JPO is a positive step
- ✓ Generous R&D- and IP-based incentives
- ✓ Global leader on targeted administrative incentives for the creation and use of IP assets for SMEs
- ✓ Strong awareness-raising efforts on negative impact of piracy and counterfeiting

KEY AREAS OF WEAKNESS

- ✗ Barriers to licensing and technology transfer, including strict registration requirements
- ✗ Limited framework for the protection of biopharmaceutical IP rights
- ✗ Patentability requirements outside international standards
- ✗ No RDP available or patent term restoration for biopharmaceuticals
- ✗ Lengthy pre-grant opposition proceedings
- ✗ Previously used compulsory licensing for commercial and nonemergency situations
- ✗ Limited participation in international treaties

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		2.99	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	0.00	13. Availability of frameworks that promote cooperative action against online piracy	0.25
3. Patentability of computer-implemented inventions	0.75	14. Scope of limitations and exceptions to copyrights and related rights	0.00
4. Plant variety protection, term of protection	0.74	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	2.25	
8. Membership of the Patent Prosecution Highway (PPH)	0.50	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.00	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
2.72		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.47	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	1.10	
		21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	3.50
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	2.50	42. Targeted incentives for the creation and use of IP assets for SMEs	1.00
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	2.00
28. Registration and disclosure requirements of licensing deals	0.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.25	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.67	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.25	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.42	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.25		
TOTAL: 19.23			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

India's overall score has increased from 36.04% (16.22 out of 45) in the seventh edition to 38.46% (19.23 out of 50) in the eighth edition. This reflects a mixed performance on the new indicators added to the Index and score increases on Indicators 11, 12, 20, and 35.

Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking); and 12. Expedient injunctive-style relief and disabling of infringing content online: As noted in previous editions of the Index, in what is otherwise a challenging copyright environment in India, a positive trend has emerged over the past few years with rights-holders increasingly being able to defend and enforce their copyrights through injunctive relief. Since 2012 there have been several cases whereby access to websites offering pirated and infringing content has been disabled through court orders,

including notorious international sites like *The Pirate Bay*. Injunctions have been issued by both the High Court of Delhi and High Court of Bombay, with the Department of Telecommunications instructing Indian ISPs to carry out the orders. This positive trend continued in 2019. In a precedent-setting case, in April 2019 the Delhi High Court issued a so-called “dynamic” injunction. Such an injunction addressed the issue of mirror sites by disabling infringing content which reappears in the public domain by simply being moved to a different access point online. These types of dynamic injunction orders are becoming more commonplace, with similar mechanisms available in, for example, Singapore, the UK, and Russia. In the Delhi Court's judgment the judge stated that the rationale behind the dynamic injunction was to help administer justice for the rights-holder as well as assist the authorities in their work: “It is desirable that the Court is freed from constantly monitoring and adjudicating the issue of mirror/redirect/ alphanumeric websites and also that the plaintiffs are not burdened with filing fresh suits.” This marks a potential

turning point in copyright enforcement in India. The growth and spread of broadband connectivity and the ubiquity of mobile phones has led to a substantive increase in accessing infringing content. Because of these efforts, the scores on Indicators 11 and 12 have increased.

Trademarks, Related Rights, and Limitations

20. Availability of frameworks that promote action against the online sale of counterfeit goods:

Like many other economies included in the Index, e-commerce and online shopping is growing fast in India. In 2018 the Indian e-commerce market was estimated to be valued at just under USD50 billion; it is expected to more than quadruple by 2026. The growth of this market has brought with it an equally strong growth in the sale and availability of counterfeit goods online. Market research conducted by local firm Velocity MR and published in *Quartz India* in 2018 estimated that one in three Indians had received a counterfeit product when shopping online. Historically, online retailers and platforms have been subject to the requirements of the Information Technology Act 2000, subsequent 2008 amendments, and 2011 Information Technology (Intermediaries guidelines) Rules. These rules present a fairly clear process whereby internet intermediaries are required to take action against any illicit activity upon obtaining knowledge of the activity. Section 79 of the 2008 amendments clearly defines what network service providers' or intermediaries' responsibilities are to qualify for a safe harbor protection, including a responsibility to "upon receiving actual knowledge ... expeditiously remove or disable access" to any illicit or infringing activity. The 2008 amendments specifically include online commerce platforms and vendors; Section 2, Clause H of the amended act includes "online-auction sites" and "online-market places" under its definition of "intermediary." Unlike for copyright, until 2018-19 there had been relatively little in the way of case law and guidance on how these requirements would operate within a trademark setting. In the past 18 months, there have been several important developments in both the case law and understanding of existing regulatory requirements as well as new proposals from the Indian government on strengthening current regulations. In November 2018 the Delhi High Court handed down a potential precedent-setting verdict in the case *Christian Louboutin SAS v. Nakul Bajaj and Ors.* In her judgment in favor of the plaintiff, the

judge succinctly summed up the dilemma for rights-holders and the responsibilities of online sellers: "While Section 79 of the IT Act is to protect genuine intermediaries, it cannot be abused by extending such protection to those persons who are not intermediaries and are active participants in the unlawful act." While only an interim judgment, further guidance on the meaning of Section 79 was provided in *Amway & Ors. v. IMG Technologies & Ors.* Here the judgment stated clearly that to qualify for the safe harbor provisions of the IT Act, "any information, which infringes patent, trademark, copyright or other proprietary rights, would be required to be taken down as per the due diligence provisions of the Intermediary Guidelines, 2011." Regarding online retailers the verdict further stated, "If any content on the marketplace violates trademark or other proprietary rights, the same would have to be taken down upon receiving notice." Both of these cases provide much needed clarity on the application and interpretation of existing statutes for trademarks online. On this basis the score on this indicator has increased by 0.25. In a further development the Ministry of Information Technology in 2019 released several drafts of new *Intermediary Guidelines Rules*. Similarly, the Department for Promotion of Industry and Internal Trade released a draft *National e-Commerce Policy*, which also includes proposals on anticounterfeiting and IP protection. At the time of research neither the *Intermediary Guidelines Rules* nor the *e-Commerce Policy* had been finalized.

Enforcement

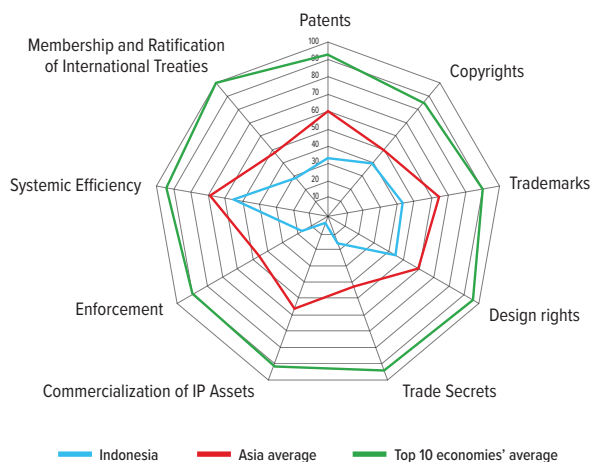
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement:

Relevant Indian statutory and case law provide for several different calculation methods for infringement, including actual damages or an account of profits. However, damages awarded in IP-infringement cases have historically been quite low. Moreover, the high pendency rate and excessive backlog (as of 2018, over 30 million civil and criminal cases were pending in India, of which 40% were more than five years old) have effectively meant that rights-holders have had limited to no realistic ability to recover any damages suffered owing to IP infringement. As noted in previous editions of the Index, the government of India has recognized this challenge and its negative impact on business disputes and IP rights-holders. Several policies have been introduced (including new

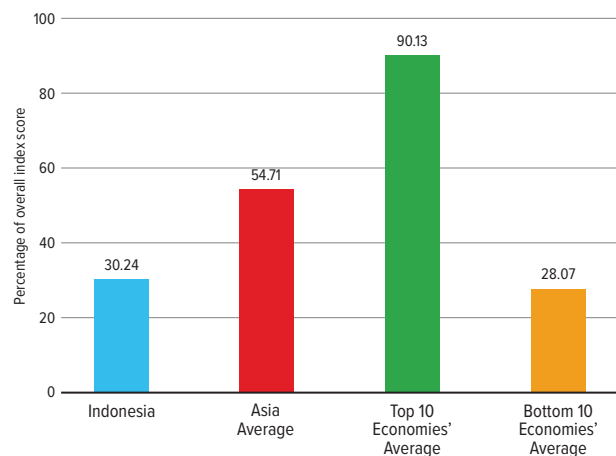
laws) that include an increased emphasis on solving legal disputes quickly and efficiently, streamlining commercial disputes, and ensuring a relevant level of expertise at the presiding court level. Two important verdicts in two unrelated cases of IP infringement in 2018-19 could raise the bar for damages awarded. In both cases—*Glenmark Pharmaceuticals Ltd. v. Curetech Skincare and Anr.* and *Nippon Steel & Sumitomo Metal Corporation v. Kishor D Jain & Anr.*—the court found blatant violation of the plaintiff’s trademarks. In the former, damages of INR 1.5 crore (about USD210,000) were awarded; in the latter, INR 5 crore (USD695,000). By Indian standards these are substantive sums that may act as an important marker and deterrent for future infringement. As a result, the score for this indicator has increased by 0.25.

INDONESIA RANK 46/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Patent Regulations of 2019 provide relief from general technology transfer and localization requirement of 2016 Patent Act
- ✓ PPH in place with JPO
- ✓ Administrative relief available for copyright infringement online
- ✓ Good cabinet-level coordination and coordinating framework for IP enforcement

KEY AREAS OF WEAKNESS

- ✗ Localization requirements strengthened in 2016 patent law—upheld in 2019 implementing regulations, which includes requirement for technology transfer of all patented technologies and processes in Indonesia
- ✗ Significant barriers in place for licensing and commercialization of IP assets including technology transfer
- ✗ Biopharmaceutical patentability standards outside international norms
- ✗ History of using compulsory licensing for commercial and nonemergency situations—2018-19 regulations go far beyond the stated goals and circumstances for the issuing of compulsory licenses under the TRIPS agreement
- ✗ Challenging copyright environment with high levels of piracy
- ✗ Limited participation in international IP treaties

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		3.00	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
2. Patentability requirements	0.00	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	1.75	
8. Membership of the Patent Prosecution Highway (PPH)	0.50	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.25	18. Protection of well-known marks	0.25
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
2.77		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.52	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	0.90	
		21. Industrial design term of protection	0.40

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	2.75
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.25
Category 6: Commercialization of IP Assets	0.25	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	0.00	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.00	Category 9: Membership and Ratification of International Treaties	2.00
28. Registration and disclosure requirements of licensing deals	0.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.25	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.20	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.28	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.17	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.25		
TOTAL: 15.12			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Indonesia's overall score has increased from 28.60% (12.87 out of 45) in the seventh edition to 30.24% (15.12 out of 50) in the eighth edition. This reflects a fairly strong performance on the new indicators added compared with Indonesia's overall performance on the Index.

Patents, Related Rights, and Limitations

2. Patentability requirements; and 6. Legislative criteria and use of compulsory licensing of patented products and technologies: As discussed previously in the Index, in 2016 the Indonesian Parliament (People's Representative Council) passed a new, wide-ranging patent law (Law 13 2016). The law aimed to strengthen Indonesia's innovation infrastructure and encourage more high-tech economic development through the creation and use of new technologies, but overall it did not improve what was already a challenging patenting environment. New restrictions on patentability for biopharmaceuticals were introduced together with provisions expanding the potential

use of compulsory licensing and parallel importation of medicines. Since the mid-2000s the Indonesian government has issued nine "government use" compulsory licenses overriding existing biopharmaceutical patents, primarily for hepatitis and HIV drugs. These licenses allow the government to exploit existing patent-protected products in the event of threats to national security or an urgent public need. The manner in which these licenses were issued and their justification were both in contradiction of Article 31 of the TRIPS agreement. TRIPS Article 31, including the amendments introduced in the 2001 Doha Ministerial Declaration and subsequent General Council decision allowing the export of medicines produced under a compulsory license (outlined in Paragraph 6), form the legal grounds for compulsory licensing for medicines. The chairman's statement accompanying the General Council decision (concerning Paragraph 6 of the Doha Declaration) underscores that these provisions are not in any way intended for industrial or commercial objectives and, if used, it is expected that they would be aimed solely

at protecting public health. In addition, Article 31 and the Doha Declaration suggest that compulsory licensing represents a “measure of last resort,” intended primarily for public health and humanitarian emergencies such as pandemics, and to be used only after all other options for negotiating pricing and supply have been exhausted. In December 2018 new Implementing Regulations (Regulation 38/2018) were released by the Indonesian government outlining the process and circumstances under which compulsory licensing could take place. These regulations go far beyond the stated goals and circumstances for the issuing of compulsory licenses under the TRIPS agreement. Specifically, the regulations allow the relevant authorities broad sway to issue a compulsory license when a patent has not been manufactured in Indonesia within a period of three years of grant or if the patent has been used in a manner that is viewed as detrimental to the public interest. It appears that not only do these regulations insert a local manufacturing requirement as a prerequisite for **not** issuing a compulsory license, but also there is no indication of what is meant by actions detrimental to the public interest. More broadly, Article 20 of the 2016 patent law seemed to make the granting of a patent conditional on localizing manufacturing and/or R&D in Indonesia. Specifically, it mandated that all patent rights-holders “make” the patented product or process within Indonesia. Subsection (2) of this article stated that this production should support Indonesia’s industrial and development policies, specifically the “transfer of technology, investment absorption and/or employment.” No further details were provided about the meaning or legal definition of “make” in this context. For many years Indonesia has had in place several mandatory localization requirements that target certain industrial sectors (most notably the biopharmaceutical sector), but this new requirement broadened this target to any patented technology. In 2018 long-awaited Patent Regulations were published that aimed to provide clarity on what Article 20 would mean in practice. On the one hand, the regulations affirm the meaning and intent of the original act that the “making” of a patent is an obligation on part of a given rights-holder to make products or use processes in Indonesia and that this must support technology transfer, investment, and/or employment in Indonesia. Upholding the sweeping localization requirements of the original law is not only firmly outside international standards but also likely to do very little to encourage and incentivize the

transfer of new technologies or foreign direct investment into Indonesia. On a more positive note, the regulations do provide the possibility of indefinitely postponing these requirements. Article 3 of the regulations allows patent holders to apply to “postpone” the production or use of the patent in Indonesia for up to five years. Article 6 also provides that this five-year postponement may be extended “with reasons.” It is not clear what this application process will look like, what the government authorities will accept as reasons for granting postponement, and how in practice rights-holders will be able to avoid these onerous localization requirements. In early 2019 the government announced that it would be issuing new regulations describing the process for both the new compulsory licensing provisions and the broader localization and technology transfer requirement. New regulations were released in December 2019. These regulations are an improvement on previous versions. With respect to compulsory licenses they provide a narrower definition of under what circumstances a compulsory license could be issued and the time period under which a patented invention must be worked. They also provide greater clarity on how to postpone the localization requirement and applicable process. Still, the new regulations do not change the sweeping localization requirements of the original patent law. It also remains to be seen how these regulations are implemented and the net effect on inventors in Indonesia.

4. Plant variety protection, term of protection: Article 4 of Law 29 2000 provides a 25-year term of protection for “annual plants” and 20 years for “seasonal.” The Implementing Regulations clarify that “annual” refers to trees and fruits.

Systemic Efficiency

43. IP-intensive industries, national economic impact

analysis: The government of Indonesia does not have a systematic research program examining the relationship between IP rights and economic activity. There is a growing awareness and focus within the government on economic diversification and the development of science and technology-based industries. For example, the Indonesian IP authorities have been actively involved in trying to understand and promote the link between the registration and protection of IP rights and economic activity through several workshops and seminars. To date there has been

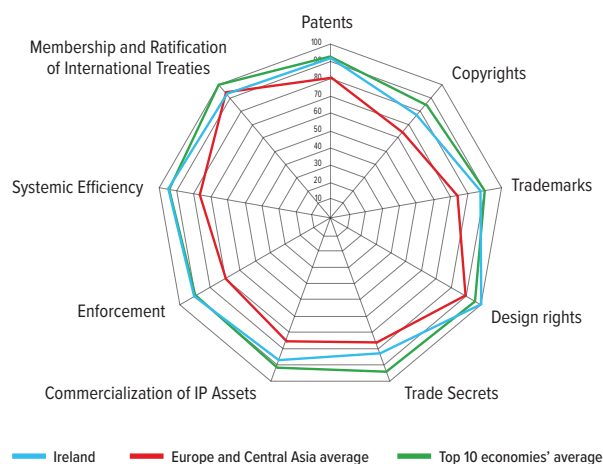
no systematic research series published or made public by the directorate. In 2014 the Ministry of Tourism and Creative Economy used the methodology developed by WIPO to support the research and publication of a report on the economic impact of the creative industries in Indonesia. The report, *Study on the Economic Contribution of Copyright and Related Rights Industries in Indonesia*, found that the copyright industries in Indonesia made a substantial contribution to both national economic output and employment. Looking at valued added, this was estimated at 4.20% of total value added in Indonesia and 4.11% of total employment.

Membership and Ratification of International Treaties

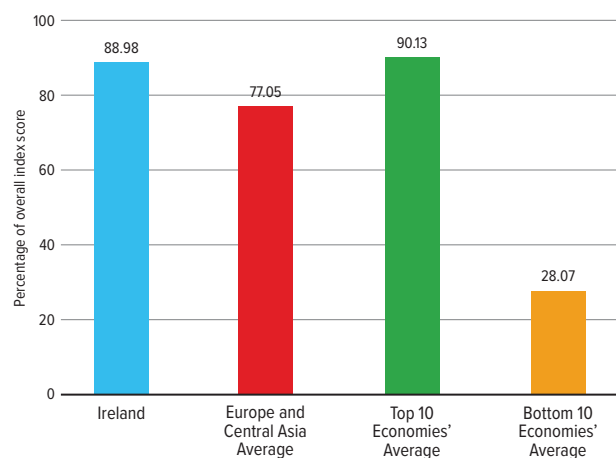
Indonesia's overall score on this category has doubled, rising from 1 to 2 due to the increased number of international treaties included in the Index. As a proportion of the available score for this category, Indonesia's performance has increased from 25% (a score of 1 out of 4 indicators) to 28.57% (a score of 2 out of 7 indicators). Indonesia is a contracting party to the WIPO Internet Treaties, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, and the Patent Cooperation Treaty. Indonesia is not a contracting party to the Singapore Treaty on the Law on Trademarks; the Patent Law Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991; the Convention on Cybercrime; or the Hague Agreement Concerning the International Registration of Industrial Designs. Indonesia has not concluded any post-TRIPS FTAs with substantial IP provisions. In March 2019 the Indonesia Australia CEPA was signed. Although this is technically a post-TRIPS FTA, it does not include any substantive provisions relating to the protection of IP. The CEPA does not have a separate IP chapter and is overall a substantively weaker agreement than many existing bilateral or plurilateral efforts—including the CPTPP-, which even in its current revised iteration has retained some important provisions relating to the protection of IP. For example, the CEPA does not require Indonesia to ease its current regulatory requirements to help address rights holders' concerns regarding the requirements for data localization and storage. Instead, chapter 13, Electronic Commerce, Article 13.11 simply states that contracting parties may not add to existing regulatory requirements.

IRELAND RANK 8/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Transposition of EU Trade Secrets Directive in 2018 through EU (Protection of Trade Secrets) Regulations 2018 (No. 188 of 2018)
- ✓ Generous R&D and IP-specific tax incentives
- ✓ Strong and advanced IP system with robust protection of all major IP rights, including sector-specific protection
- ✓ Judicial mechanism for notifying online copyright infringers and disabling access to infringing content online

KEY AREAS OF WEAKNESS

- ✗ Licensing registration requirements
- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Ireland's and EU's research and IP-based biopharma industry

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.75
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.75
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.75
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.75
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 4: Design Rights, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	1.00
9. Patent opposition	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
Category 2: Copyrights, Related Rights, and Limitations		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.63	Category 5: Industrial Design, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.75	21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.50	Category 8: Systemic Efficiency	4.75
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.50	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	5.25	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	6.50
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	6.36	48. Membership of the Convention on Cybercrime, 2001	0.50
32. Physical counterfeiting rates	0.90	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.71	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	1.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.75		
37. Effective border measures	1.00		
TOTAL: 44.49			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Ireland's overall score has decreased from 89.42% (40.24 out of 45) in the seventh edition to 88.98% (44.49 out of 50) in the eighth edition. This reflects a relatively strong performance on the new indicators added to the Index but a score decrease on Indicator 7.

Area of Note

In June 2019 the Copyright and Other Intellectual Property Law Provisions Act 2018 was signed into law. Most of the legislative amendments are procedural in nature, with some more substantive changes to the exceptions and limitations regime under Irish copyright law. This includes clarifying the use of copyrighted material for educational purposes, noncommercial scientific research, and generally how and to what areas fair dealing exceptions apply. Generally, there were more substantive changes to the way all IP rights-related disputes are litigated in Ireland, with a division based on the monetary size of the dispute deciding which legal venue (District versus Circuit Court) will hear the case.

Under the new amendments the District Court will hear smaller disputes with claims less than EUR75,000 and the Circuit Court will hear disputes greater than EUR75,000. This new legislation does not affect Ireland's score on the Index.

Patents, Related Rights, and Limitations

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called "Supplementary Protection Certificates" (SPCs). One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an "SPC exemption." The overriding purpose of the proposal was to provide European manufacturers of generic drugs

and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders,

import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, "If the European Union is weakening IP standards to benefit its domestic industries, why shouldn't we do the same?" Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish government's perceptive criticism of the policy: "While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**" [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, Ireland included.

Systemic Efficiency

43. IP-intensive industries, national economic impact

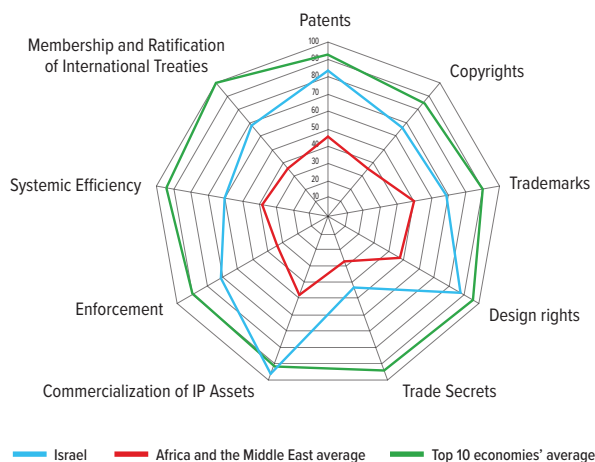
analysis: The Irish economy is built on high-tech, IP-intensive industries. The government has, through various initiatives, sought to incentivize the creation, registration, and use of IP assets to spur economic growth and development. In terms of macro and micro studies examining the relationship between IP rights and economic activity, Enterprise Ireland and Knowledge Transfer Ireland have been at the forefront. In 2012 the former published *Inventions & Innovations: The Positive Impact of Ideas from Research on Irish Industry and Society*, a study of the real-life socioeconomic impact technology transfer and commercialization has had on the Irish economy. As a Member State of the European Union and contracting party to European Patent Convention, the Irish government also takes part in the multitude of research efforts conducted by European institutions. A swathe of European institutions study the economic impact of IP-intensive industries in the EU and Europe. Major institutions that publish studies and research on various aspects of the economics of IP-intensive industries include the EPO, EUIPO, EUROSTAT, and the European Commission. The latest such study is the *2019 IPR-Intensive Industries and Economic Performance in the European Union*, published by the EUIPO and EPO. This study found that IP-intensive industries contributed an estimated 65% of Irish GDP, on average, in 2014-16. Similarly, with respect to employment an estimated 27.1% of the Irish labor force worked in IP-intensive industries.

Membership and Ratification of International Treaties

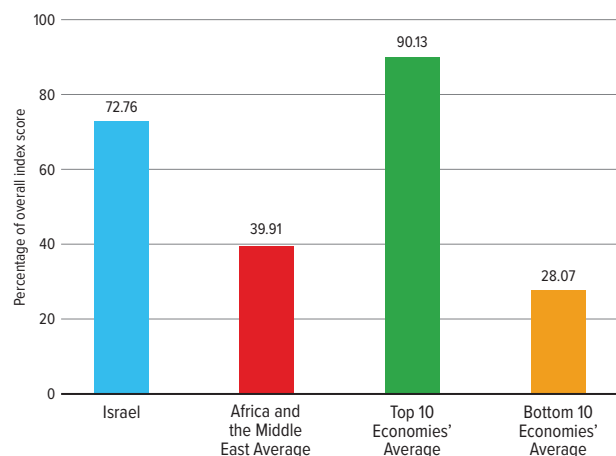
Ireland is a signatory and contracting party to all but one of the treaties included in the IP Index. Ireland signed up to the Convention on Cybercrime in 2002 but has not acceded or formally ratified it.

ISRAEL RANK 17/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New copyright amendments strengthen enforcement against online infringement—introduce possibility of injunctive-style relief
- ✓ Global leader on technology transfer and international licensing activity with no administrative or regulatory barriers in place
- ✓ Generous R&D and IP-specific tax incentives
- ✓ Israeli Patent Office an active participant in all major PPH tracks
- ✓ Life sciences IP rights reform efforts have considerably strengthened Israel's IP environment
- ✓ New industrial design law passed in 2017
- ✓ Joined Hague Agreement in 2019

KEY AREAS OF WEAKNESS

- ✗ Pre-grant patent opposition proceedings are characterized by long delays to patent prosecution
- ✗ RDP not provided for large molecule products

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		7.50	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	1.00
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	2.75	
8. Membership of the Patent Prosecution Highway (PPH)	1.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.00	18. Protection of well-known marks	0.75
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
4.63		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.63	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.75	1.75	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.50
Category 5: Trade Secrets and the Protection of Confidential Information	1.30	Category 8: Systemic Efficiency	3.00
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.00	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.30	41. Educational campaigns and awareness raising	0.25
Category 6: Commercialization of IP Assets	5.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	4.75
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	0.50
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	4.95	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.72	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.73	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.75		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.75		
36. Criminal standards including minimum imprisonment and minimum fines	0.75		
37. Effective border measures	0.75		
TOTAL: 36.38			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Israel's overall score has increased substantially from 66.42% (29.89 out of 45) in the seventh edition to 72.76% (36.38 out of 50) in the eighth edition. This reflects a relatively strong performance on the new indicators added to the Index and a score increase on Indicators 11, 12, 13, and 20.

Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking); 12. Expedient disabling of infringing content online; and

13. Availability of frameworks that promote cooperative action against online piracy: As noted in previous editions of the Index, the protection of copyright online has long been a challenge for rights-holders in Israel. Israeli industry figures published in 2011 suggested that approximately 95% of online music and 50% of film was pirated. For many years Israel remained an outlier among OECD economies because it had no specific legal framework in place regarding

notice-and-takedown mechanisms or other administrative or regulatory mechanisms to effectively enforce copyright and related rights in the online environment. Some case law and precedent was in place (including the 2011 *Association for the Protection of Cinematic Works v. Rotter.net Ltd.*) establishing the rights and responsibilities of ISPs regarding indirect infringement and liability; however, this was not a suitable substitute for a clear legal framework. In January 2019 this changed when the Israeli Parliament, the Knesset, passed a series of amendments to the Copyright Law. Specifically, these new amendments introduce liability for indirect online infringement as well as a court-based injunctive-style relief mechanism. Regarding indirect infringement, section 48A of the amendments provides the grounds for liability for infringement through the facilitation of access to copyright-infringing material. Liability can be established if, at the time of making the work available to the public, (1) the alleged infringer knew or should have known that the work was violating copyright, and (2) the making available to the public was on a commercial profit-

making basis. It is unclear how, or even if, the new law would apply to cases in which alleged infringers are violating copyright but there is no clear and direct profit seeking through, for example, the uploading and downloading of content through peer-to-peer networks. Furthermore, the law does not provide details on if it will be applied to internet intermediaries. Local legal analysis suggests the law was drafted to apply explicitly to websites that provide pirated content and not the technological intermediaries or platforms that facilitate such activity. Section 53A of the amendments establishes a new route for rights-holders to apply to a District Court for an Access Restriction Order to disable access to an alleged infringing website. The law does not limit the application of these orders to websites/service providers hosted only in Israel but applies to any and all suspected providers of infringing content. Where the law is silent is with respect to mirror sites, so-called “dynamic orders,” and the process by which rights-holders can seek effective redress when infringing content taken down re-emerges through an alternative mirror website or service. Many jurisdictions that have an injunctive relief-style mechanism like the one introduced in Israel have also complemented this action with the ability to seek dynamic orders when and if such mirror sites emerge. Overall, these amendments strengthen Israel’s copyright regime and have resulted in scores rising on Indicators 11, 12, and 13. The Index will continue to monitor the application of these new laws in 2020 and the extent to which they more effectively allow rights-holders to enforce their copyright.

Trademarks, Related Rights, and Limitations

20. Availability of frameworks that promote cooperative private action against online sale of counterfeit goods:

There is no comprehensive legal framework akin to a notice-and-takedown regime for online shopping platforms in Israel. The largest local Israeli retailers, including Buy2 (now Azrieli) and 21tv, have historically not had notification regimes. Instead, both merchants specifically disavow themselves of any responsibility for the quality and authenticity of third-party goods and service advertised and sold on their websites. Over the past few years, the Israeli online shopping market has grown through the expanded sales and increased local presence of international companies such as Alibaba, eBay, and Amazon. In 2019, for example, Amazon launched an Israeli-based service whereby local merchants sell and ship goods through Amazon locally in Israel. The market share

of these merchants has increased substantially, with all three reportedly being the largest in Israel in 2018-19. These three platforms have well-established notification regimes in place whereby consumers and rights-holders can directly notify them of any suspected counterfeit goods advertised. Because of these changes in local market conditions in Israel, the score for this indicator has increased by 0.25.

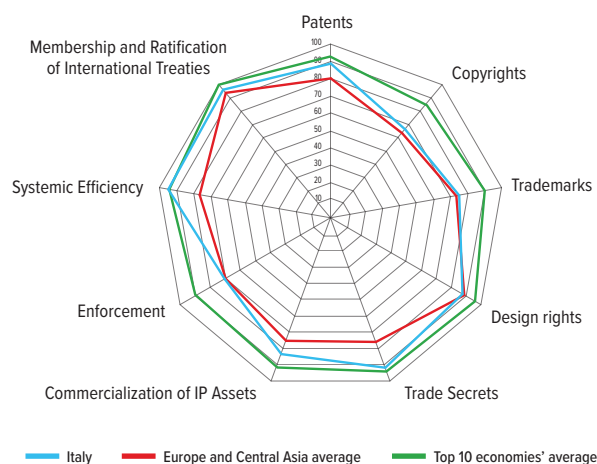
Systemic Efficiency

43. IP-intensive industries, national economic impact

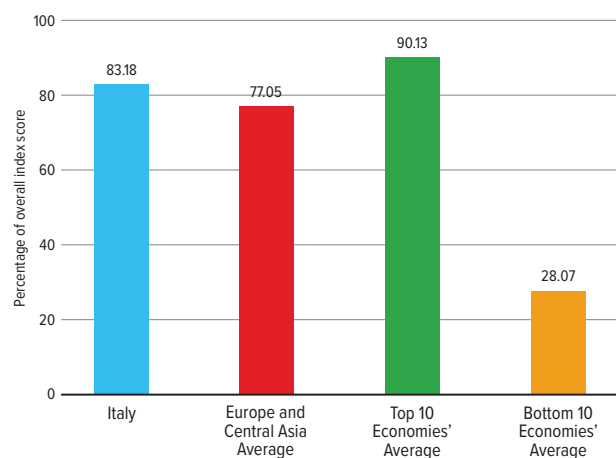
analysis: Several Israeli government departments and agencies are engaged in understanding, measuring, and facilitating the creation, registration, and commercialization of IP assets. The Israeli Innovation Authority (formerly the Office of the Chief Scientist) and other public entities actively support the creation and commercialization of IP assets through technology transfer. Since the 1960s Israel has invested heavily in R&D and innovative activities and in establishing a strong academic and scientific base. Supported by the flow of skilled and educated immigrants, academic institutions such as the Weizmann Institute, the Technion, and the Hebrew University received world recognition manifested in research grants and opened technology transfer offices. Following the establishment of the Office of the Chief Scientist at the Ministry of Industry and Commerce, the government provided financial support for private R&D activities, leading to an increase of 14% per year in industrial R&D and to a compounded annual growth rate of 12.13% in high-tech exports between 1969 and 1987. The strategic importance of R&D and innovation to the Israeli economy was further emphasized in the 1985 “Law for the Encouragement of R&D” that significantly strengthened public sector innovation policy in Israel, providing support that is both neutral and horizontal regarding industrial sectors and technology. Part of this effort has been to document and measure the impact of innovation and high-tech industries on the Israeli economy. The Innovation Authority periodically publishes ad hoc macro and sector-specific assessments of high-tech and knowledge-intensive industries and their current and potential economic impact on the Israeli economy and employment. However, there is no government program in place akin to those in other high-income developed OECD economies that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

ITALY RANK 12/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Generous R&D and IP-specific tax incentives in place
- ✓ Fairly advanced national IP framework
- ✓ Major life sciences IP rights in place
- ✓ Administrative and judicial mechanisms for addressing online copyright infringement
- ✓ Public consultation during policy formation and efforts to raise awareness of IP importance present

KEY AREAS OF WEAKNESS

- ✗ Registration requirements for licensing agreements
- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Italy's and EU's research and IP-based biopharma industry

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		8.00	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	0.75	13. Availability of frameworks that promote cooperative action against online piracy	0.75
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.75
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	0.75
9. Patent opposition	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
Category 2: Copyrights, Related Rights, and Limitations		4.66	
10. Copyright (and related rights) term of protection	0.66	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	1.00
		1.75	

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.75	Category 8: Systemic Efficiency	4.75
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.75	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	5.00	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	6.75
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	4.93	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.61	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.57	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.75		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	1.00		
TOTAL: 41.59			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Italy's overall score has increased from 81.29% of total possible score (36.58 out of 45) in the seventh edition to 83.18% (41.59 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index but a score decrease on Indicator 7.

Patents, Related Rights, and Limitations

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called "Supplementary Protection Certificates" (SPCs). One option for change put forth by the Commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an "SPC exemption." The overriding purpose of the proposal was

to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been or are currently being, used by millions of patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation

of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that, over time, other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, "If the European Union is weakening IP standards to benefit its domestic industries, why shouldn't we do the same?" Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU

Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK all voted against it. A statement was subsequently issued whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish government's perceptive criticism of the policy: "While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**" [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, Italy included.

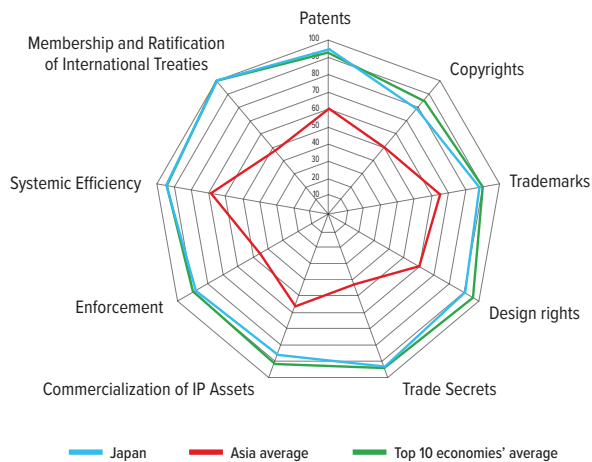
Copyrights, Related Rights, and Limitations

12. Expeditious injunctive-style relief and disabling of infringing content online. As noted in past editions of the Index, the Italian telecoms regulator and competition authority AGCOM can implement notice-and-stay-down measures and issue preliminary injunctions disabling access to infringing websites within three days upon receiving notification from a rights-holder, including "dynamic injunctions" addressing alias sites. However, legislation does not mandate a strictly self-regulated action. In 2019 the State Council (a legal-administrative consultative body that ensures the legality of public administration) decided that, while having the power to issue compliance orders, AGCOM is not entitled to apply pecuniary sanctions for noncompliance to its orders, as foreseen by AGCOM's 2013 Copyright Resolution. Operators who refuse to comply can be subject to payment of damages following a civil lawsuit but are not subject to any immediate sanction. While the concrete effects will need to be measured in the upcoming months and years,

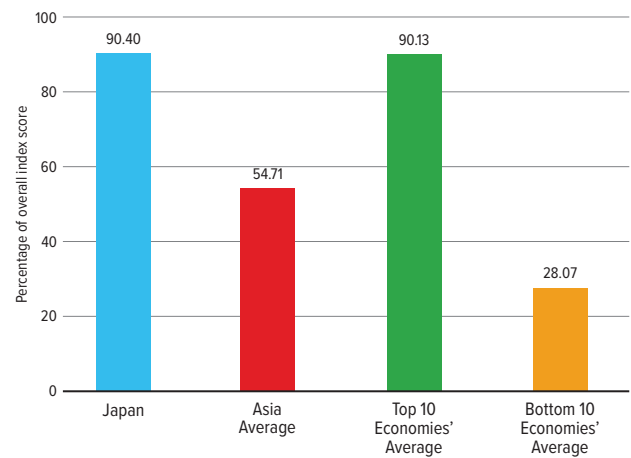
the decision of the State Council weakens the notice-and-takedown system in place and marks a step back for online copyright protection. As of October 2019, AGCOM had launched 1,123 compliance procedures; of these, 723 resulted in a compliance order and most of the others resulted in spontaneous removal of the disputed content.

JAPAN RANK 6/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Copyright amendments of 2019 strengthen TPM laws and increase term of protection
- ✓ Global leader regarding targeted administrative incentives for the creation and use of IP assets for SMEs
- ✓ Economic Partnership Agreement signed with EU includes a substantial IP chapter
- ✓ Licensing guidelines provide balanced approach to licensing terms and conditions for SEPs
- ✓ Signed and acceded to all international IP treaties included in the Index
- ✓ Strong, sophisticated national IP environment in place with relevant IP rights and protection available for all major IP rights categories

KEY AREAS OF WEAKNESS

- ✗ No IP-specific tax incentives in place such as a patent box regime
- ✗ Remedies against online copyright infringement remain underdeveloped compared with other OECD economies

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		8.50	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.50
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.75
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	3.50	
8. Membership of the Patent Prosecution Highway (PPH)	1.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	1.00	18. Protection of well-known marks	1.00
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
5.49		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.74	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	1.00	1.80	
		21. Industrial design term of protection	0.80

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.80	Category 8: Systemic Efficiency	4.75
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	1.00	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.80	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	5.17	42. Targeted incentives for the creation and use of IP assets for SMEs	1.00
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	6.19	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.85	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.84	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.75		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.75		
36. Criminal standards including minimum imprisonment and minimum fines	1.00		
37. Effective border measures	1.00		
TOTAL: 45.20			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Japan's overall score has increased from 87.73% (39.48 out of 45) in the seventh edition to 90.40% (45.20 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index and an increase in score on Indicators 10 and 15.

Copyrights, Related Rights, and Limitations

10. Copyright (and related rights) term of protection; and 15. Digital rights management legislation: As part of its accession to the CPTPP, in 2018 Japan passed several amendments to its copyright law. These amendments include relatively substantive changes to Japanese copyright law, including an extension of the term of copyright protection and the strengthening of technological protection measures. Article 52 has increased the term of protection for anonymous works from 50 years to 70 years. Furthermore, Articles 2, 113, and 119 have strengthened and clarified the legal framework for the enforcement of technological protection measures.

Because of these changes, the score on Indicators 10 and 15 have increased.

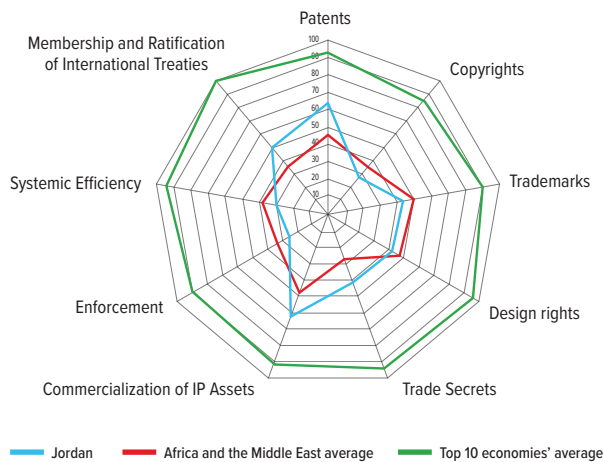
Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: For many years the Japanese government has promoted innovation and scientific research through dedicated policy initiatives aimed at boosting competitiveness and economic growth. Since the Basic Law on Science and Technology was introduced in 1995, the government has issued successive Science and Technology Basic Plans. The Abe administration has further prioritized innovation, identifying it as one of the central pillars of economic growth and releasing an annual Comprehensive Strategy on Science, Technology, and Innovation since 2013. The Cabinet's Council for Science, Technology, and Innovation and the Ministry of Education, Culture, Sports, Science, and Technology (the central government body for Japan's innovation policy) seek to coordinate and align various agencies'

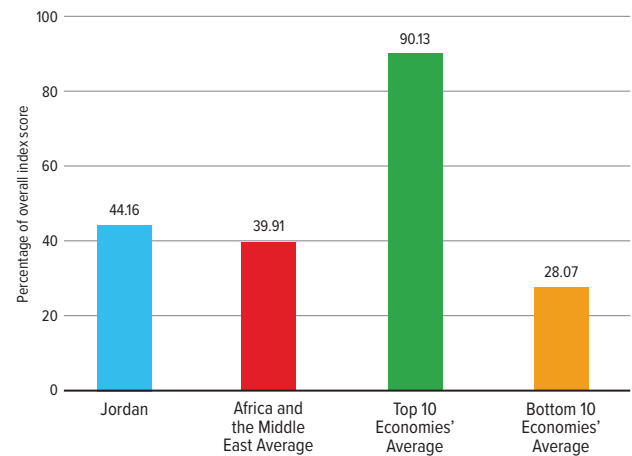
innovation policies and programs to generate new levels of innovation, with a focus on supporting the growth and development of “cross-cutting technologies” such as ICT, nanotechnology, and environmental technology and improving the “fundamentals” of innovation. Specific objectives of the strategy include increasing government spending on R&D, raising spending on basic science and universities, and promoting technology transfer, including through intellectual property platforms, and industry-academia collaboration. Since the early 2000s, both the Japan Patent Office and Ministry of Economy, Trade, and Industry have conducted or sponsored numerous studies examining the relationship between IP rights and economic activity both on a macro level and with more sector-specific programs. For example, the Japan External Trade Organization as well as other bodies periodically examine the impact of IP-intensive industries such as anime and manga on the Japanese economy and its contribution to GDP, employment, and growth. However, there is no government program in place akin to those in other high-income developed OECD economies that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

JORDAN RANK 33/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Basic legal framework for major IP rights
- ✓ Sector-specific IP rights introduced as a result of 2001 U.S. FTA
- ✓ Five-year term of RDP for pharmaceuticals provided
- ✓ Strong DRM framework

KEY AREAS OF WEAKNESS

- ✗ No R&D or IP-specific tax incentives in place
- ✗ No targeted incentives for the creation and use of IP assets for SMEs
- ✗ High levels of copyright infringement, particularly online
- ✗ Uncertainty as to the actual availability of the full term of RDP protection—eligibility contingent on global launch and registration in Jordan within 18 months
- ✗ Uncertainty over availability of patents for CILs

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		5.75	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	0.00	18. Protection of well-known marks	0.25
9. Patent opposition	0.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
Category 2: Copyrights, Related Rights, and Limitations		1.94	
10. Copyright (and related rights) term of protection	0.44	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	1.25	Category 8: Systemic Efficiency	1.50
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.25
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	3.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.00
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	3.50
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.25	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	1.79	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.34	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.45	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.25		
TOTAL: 22.08			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Jordan's overall score has increased from 42.40% (19.08 out of 45) in the seventh edition to 44.16% (22.08 out of 50) in the eighth edition. This reflects a relatively strong performance on the new indicators added to the Index.

Patents, Related Rights, and Limitations

2. Patentability requirements; and 3. Patentability of computer-implemented inventions: In April 2019 the EPO and Jordanian IP authorities (the Jordanian Industrial Property Protection Directorate [IPPD]) announced they were commencing negotiations on a patent validation agreement. The prospective agreement would allow European applicants and holders of an EPO-granted patent to apply for a validation of their existing patent and receive protection in Jordan. The agreement is also said to include IPPD staff technical training and capacity-building. This is a positive step for Jordan's national IP environment. As has been noted in past editions, the IPPD is a relatively small office, it has a limited number of examiners, and

some of the search and examination is carried out with the assistance of WIPO. The Index will monitor these developments in 2020 and the extent to which this agreement improves the patentability environment in Jordan.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: The IPPD does not have a dedicated research program examining the relationship between IP rights and economic activity. IP rights are only tangentially featured in national development programs, including the flagship *Jordan 2025, A National Vision and Strategy*. However, there are other examples of government commissioned or supported research examine the relationship between IP rights and economic activity. Most notable is the 2012 *The Economic Contribution of Copyright-Based Industries in the Hashemite Kingdom of Jordan*, a review of the creative economy in Jordan sponsored by WIPO and supported by several parts of the Jordanian government, including the

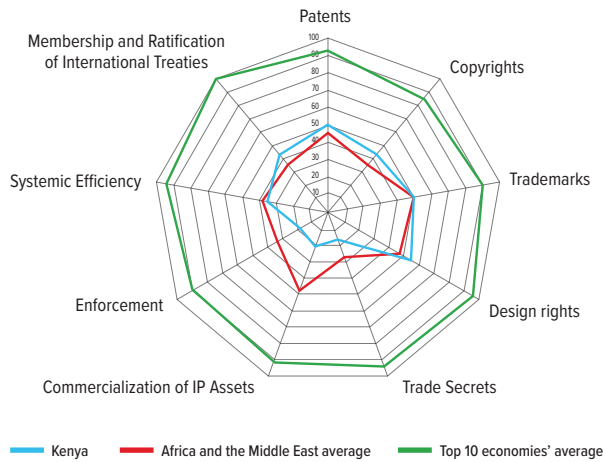
Ministry of Culture. Similarly, the Jordanian government through the Ministry of Planning and International Cooperation has worked with the World Bank on several projects, including the 2013 *Jordan Competitiveness and Innovation Partnership: Promoting Reforms at the National and Sector Levels*, which includes a discussion on the necessity of improving the national IP environment.

Membership and Ratification of International Treaties

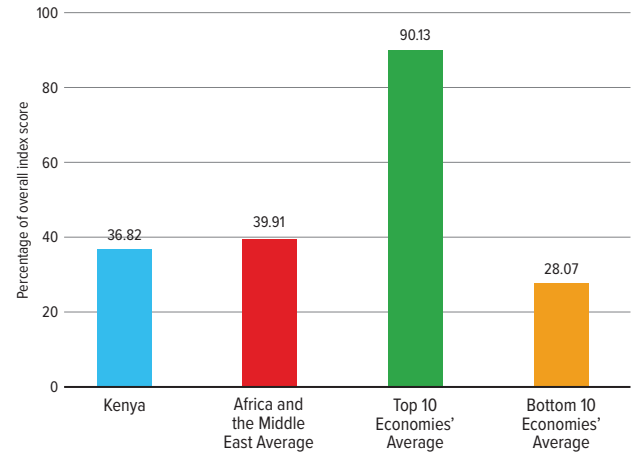
Jordan's overall score on this category has increased, rising from a score of 2 to 3.5 as a result of the increased number of international treaties included in the Index. As a proportion of the available score for this category, Jordan's performance has stayed the same at 50% of the available score. Jordan is a contracting party to the WIPO Internet Treaties; the Patent Cooperation Treaty; and the International Convention for the Protection of New Varieties of Plants, act of 1991. Jordan is not a contracting party to the Singapore Treaty on the Law on Trademarks, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, the Patent Law Treaty, the Convention on Cybercrime, or the Hague Agreement Concerning the International Registration of Industrial Designs. The 2001 U.S.-Jordan FTA contains a separate and distinct IP chapter. Over the past 16 years this agreement has greatly strengthened the national IP environment in Jordan.

KENYA RANK 41/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New 2019 copyright amendments strengthen the protection of copyright in Kenya
- ✓ Basic IP framework in place, including a number of sector-specific rights
- ✓ Dedicated IP bodies and enforcement agencies, with demonstrated efforts to address IP infringement (though fragmentation occurs and much more action is needed)
- ✓ Recent efforts to improve knowledge and frameworks for proper use and commercialization of IP assets

KEY AREAS OF WEAKNESS

- ✗ Barriers in place for licensing and technology transfer
- ✗ No R&D or IP-specific tax incentives in place
- ✗ No targeted incentives for the creation and use of IP assets for SMEs
- ✗ Weak and backlogged judicial system with notable deficiencies in criminal enforcement
- ✗ Important gaps in copyright protection, particularly in the digital space
- ✗ Legislative and resource barriers to border enforcement

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		4.50	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.25
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	2.00	
8. Membership of the Patent Prosecution Highway (PPH)	0.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.75	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
3.03		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.53	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	1.10	
		21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	1.75
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.25
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	1.25	42. Targeted incentives for the creation and use of IP assets for SMEs	0.00
26. Barriers to market access	0.50	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.25	Category 9: Membership and Ratification of International Treaties	3.00
28. Registration and disclosure requirements of licensing deals	0.00	44. WIPO Internet Treaties	0.50
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.75
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	1.28	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.27	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.26	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.00		
TOTAL: 18.41			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Kenya's overall score has increased from 32.60% in the seventh edition (14.67 out of 45) to 36.82% (18.41 out of 50). This reflects a fairly strong performance on the new indicators added to the Index and score increases for Indicators 11, 12, and 13.

Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking;

12. Expedient injunctive-style relief and disabling of infringing content online; and 13. Availability of frameworks that promote cooperative action against online piracy: In September 2019 Kenya's president signed into law the Copyright (Amendment) Act. Section 24 defines ISP and service providers' liability in cases of infringement. For instance, ISPs should not in any way modify or promote infringing material, nor should they have actual knowledge of its existence. Section 35 requires ISPs upon receipt of

a takedown notice to notify the infringers and remove or limit access to copyright-infringing material within 48 hours from receiving a notification. Criminal penalties—fines of up to KES500,000 (about USD5,000) and/or imprisonment for up to five years—will apply to intermediaries for failing to take down infringing content. Service providers will also be liable for any losses or damages resulting from noncompliance. However, rights-holders will incur the same penalties if their notices are lodged “falsely or maliciously.” Furthermore, new provisions of the law also require that rights-holders “identify the rights being infringed and set out the content sought to be removed with details of where the content is contained.” Copyright holders will also be able to apply to the High Court for an interim relief when they have reasonable grounds to believe their rights are being infringed in or outside Kenya (section 35D). Such relief may include orders requiring an ISP to cease enabling, facilitating, hosting, or making available the infringing content. The orders may also require the ISP to disable the infringer's access to its services.

Section 38 extends copyright protection to computer programs and criminalizes the circumvention of technical protection measures or the manufacture of devices to circumvent technical protections. Finally, the bill regulates the collection and disbursement of royalties to authors and copyright owners, removes procedural obstacles to the licensing and assigning of copyrights, and clarifies the corporate governance of collective management organizations. As a result, the scores on Indicators 11, 12, and 13 have increased.

Design Rights, Related Rights, and Limitations

21. Industrial design term of protection: Enactment of the Miscellaneous Laws Amendment Act of 2018 updated various provisions of the IP Act of 2001, including filing requirements for design applications. These amendments lifted the burdensome requirement of filing a physical specimen of any proposed design application. In the past years this has discouraged rights-holders from registering their design with the Kenyan IP Institute, pushing them instead to apply for protection at the African Regional Intellectual Property Organization. Although it does not warrant any change in Index score, this welcome development better aligns the design registration system with international best practices.

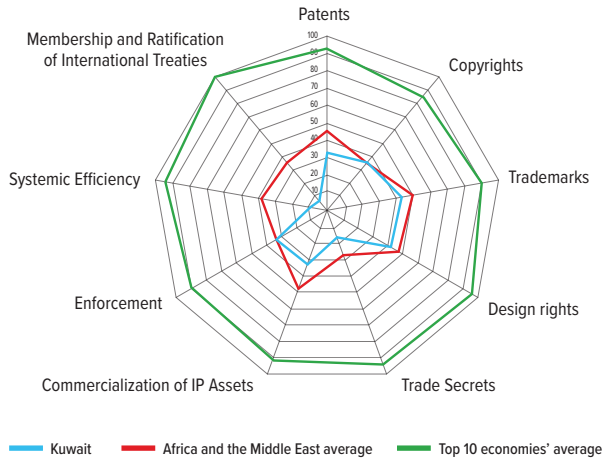
Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: Kenya's Anti-Counterfeit Authority (ACA) actively measures and monitors the harm that counterfeiting and piracy has on the Kenyan economy and rights-holders. At the time of research, the ACA was carrying out a national baseline survey on counterfeiting and illicit trade, seeking to quantify the magnitude of counterfeiting and illicit trade in Kenya. The ACA is part of the Multi-Agency Anti-Illicit Trade Outreach and together with the Kenya Revenue Authority, the Kenya Police, and the Kenya Bureau of Standards is tasked with raising awareness on the cost and implications of illicit trade. Counterfeiting is considered one of the biggest threats and impediments toward the realization of the government's "Big 4 Agenda" (universal care, food security, affordable housing, and a 25% increase in manufacturing) and the long-term development program "Kenya Vision 2030." Fighting illicit trade and counterfeiting as a way of boosting domestic production is also at the heart of the National Action Plan and Implementation

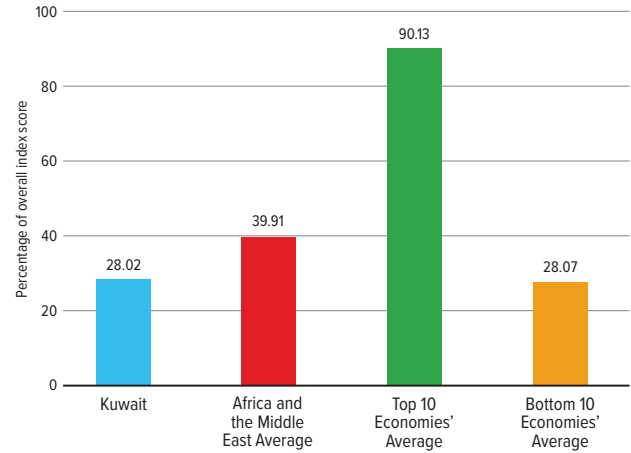
Framework to Combat Illicit Trade, adopted in 2019 by the recently created Inter-Agency Anti-Illicit Trade Executive Forum. Conversely, there is no corresponding effort or government program in place that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment. Individual examples of IP-intensive industries or sectors have been studied. For instance, using the methodology developed by WIPO, in 2009 the Kenya Revenue Authority and Kenya Copyright Board together with WIPO supported the research and publication of a report on the economic impact of the creative industries in Kenya carried out by a local academic. The report, *The Economic Contribution of Copyright-Based Industries in Kenya*, found that the copyright industries in Kenya made a substantial contribution to both national economic output and employment. Looking at valued added, this was estimated at 5.32% of Kenyan GDP and 3.26% of total employment.

KUWAIT RANK 49/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Basic IP framework in place
- ✓ Participant in regional patent and trademark harmonization efforts through Gulf Cooperation Council (GCC)

KEY AREAS OF WEAKNESS

- ✗ Most sector-specific rights missing
- ✗ Barriers in place for licensing and technology transfer
- ✗ No R&D or IP-specific tax incentives in place
- ✗ No targeted incentives for the creation and use of IP assets for SMEs
- ✗ Limited participant in international treaties

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		3.00	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	0.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	0.00	18. Protection of well-known marks	0.25
9. Patent opposition	0.25	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
Category 2: Copyrights, Related Rights, and Limitations		2.53	
10. Copyright (and related rights) term of protection	0.53	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	0.50
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.00
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.25
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.25
Category 6: Commercialization of IP Assets	2.00	42. Targeted incentives for the creation and use of IP assets for SMEs	0.00
26. Barriers to market access	0.00	43. IP-intensive industries, national economic impact analysis	0.00
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	0.50
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	0.00
29. Direct government intervention in setting licensing terms	0.50	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	2.38	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.45	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.43	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.50		
TOTAL: 14.01			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

2. Patentability requirements; and 3. Patentability of computer-implemented inventions: Following the implementation of Law No. 71 2013 and implementing Regulations 115/2016, the Kuwaiti Patent Office stopped accepting national patent applications in 2016. The new pieces of legislation in effect repealed the old patent law and replaced it with the existing patent regime in place under the Gulf Cooperation Council. Articles 2-12 of the GCC Patent Regulations define the conditions under which a patent will be granted and which areas are excluded. Article 2 states that a patent shall be granted for a given invention that is “new and involves an inventive step and is applicable to industrial application.” Article 3 excludes computer programs, plant varieties, business practices, biological processes, and surgical and therapeutic methods (not excluding specific products). The law also excludes inventions that are “contrary to Islamic Shariya.” Local legal analysis suggests that formally second use claims are excluded within the GCC. There have been examples of

Swiss-style claims being accepted, but overall there is some uncertainty about whether second use innovations will consistently be granted. Regarding CII, local legal analysis suggests that copyright protection is the primary form of protection within the GCC for software. A GCC patent may be obtained if there is a technical effect and interaction with hardware. Neither WIPO’s statistical database nor the publicly available data published by the GCC Patent Office shows a preponderance of ICT and computer-related applications or grants in Kuwait up to 2016 or through the GCC. Statistics published by the GCC on the scientific fields with the highest number of patents granted did not include ICT and computer-related grants. The five biggest fields with over 10,000 patents granted were, in order of magnitude, chemistry (26.48%), mechanical and electrical engineering (22.51%), chemical engineering (20.31%), petroleum and natural gas engineering (19.24%), and pharmaceutical and biotechnology (11.47%). Finally, there is the issue of patent enforcement. Although a GCC patent is a unitary patent, there is no unitary enforcement

mechanism. The enforcement of patent rights takes place at the national level and is subject to the legal process in place in each of the contracting states.

Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking);

12. Expeditious injunctive-style relief and disabling of infringing content online; and 13. Availability of frameworks that promote cooperative action against online piracy:

Article 9 of the copyright law defines rights-holders' exclusive economic rights, including the rights of transmission and dissemination over the internet. The law does not provide or define a notification system, safe harbor laws, or circumstances in which ISPs and internet mediators are liable for enabling copyright infringement. There is also no legally defined system of injunctive relief and the disabling of infringing content online—whether through a judicial or administrative authority. Some disabling of infringing content has taken place as, more broadly, Kuwaiti authorities review and censor all information and media on the internet. Since 2014-15 new laws relating to telecommunications and cybercrime have given a government regulator (the Communications and Information Technology Authority) power to oversee and regulate the online space. Under Law No. 37 of 2014 on the Establishment of Communication and Information Technology Regulatory Authority, CITRA has the power to suspend operating licenses, access to online material, and individual accounts. News reporting and published reports by the U.S. State Department suggest that the Kuwaiti authorities have disabled access to a variety of web content, including sites that link or provide access to copyright-infringing material. CITRA also offers a dedicated web portal where online requests for the disabling of content online can be requested. However, this portal is not aimed at copyright-infringing content but is much more general and broadly defined. CITRA describes this activity thusly: "The Communication and Information Technology Regulatory Authority (CITRA) receives requests to block web content that contradicts public interest. This includes public morals, the teachings of the Islamic faith, public order, and other prohibited content under the laws of the state of Kuwait." The bottom line is that copyright enforcement—physical and online—remains challenging in

Kuwait. Industry reports suggest that criminal prosecution is virtually nonexistent and that, until 2014, there had been no raids or serious enforcement activities against violators. Some improvements have been made over the past few years, but overall this remains a difficult situation.

16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed software:

Kuwait struggles with relatively high rates of software piracy. Estimated rates of software piracy have essentially stood still since 2011; the latest estimates from BSA published in 2018 estimated that 57% of software in Kuwait was unlicensed. This is virtually unchanged since 2011 when the estimated rate was 59%. As one of the most developed economies in the region with one of the highest per capita incomes in the world, this figure stands out. Saudi Arabia and Qatar both have estimated rates of unlicensed software at 47% and the UAE at 32%—all substantially lower than Kuwait. Regarding government use of unlicensed software, industry reports suggest this has historically been a problem. Over the past few years Kuwaiti authorities have begun to recognize this and have taken several measures to more effectively manage their overall use of ICT products and services. In addition to the telecommunications and digital infrastructure regulator CITRA, the CAIT oversees the development of national IT infrastructure and e-government and is overseeing the development of the National Information Technology Governance Framework. Both CITRA and CAIT, as well as the Ministry of Finance, have developed procurement guidelines for software and ICT hardware. The Ministry of Finance publishes an annual "purchase guide" for ICT hardware to be used by all government agencies. Similarly, CAIT oversaw the establishment of an Enterprise Agreement (a volume licensing agreement designed specifically for governments and large organizations) with Microsoft for the provision of licensed software and ICT services. The latest publicly available agreement is for the period 2017-20.

Design Rights, Related Rights, and Limitations

21. Industrial design term of protection: The protection of industrial design is not available under the GCC Patent Regulation. Article 42 of the old Kuwaiti patent law (Law No. 4 of the Law on Patents, Designs, and Industrial Models)

provided a maximum term of 15 years' protection for design rights. However, local legal practice notes suggest there is some uncertainty about the actual protection afforded. Historically, design right protection was in effect but never granted; the relevant Kuwaiti authorities issued an application receipt but no actual certificate of registration. This changed in the mid-2010s with certificates of registration granted. However, given the adoption of the GCC Patent Regulation in 2016 and repeal of the old Kuwaiti patent law, it is unclear the extent to which design rights are registered and protected in Kuwait.

Trade Secrets and the Protection of Confidential Information

23. Protection of trade secrets (civil provisions); and

24. Protection of trade secrets (criminal sanctions):

Although trade secrets are neither defined nor specified in any Kuwaiti statute, some legal remedies are available to rights-holders. For example, under Article 41 of the 2010 Kuwait Labor Law, employers have the right to terminate employment if an employee divulges confidential information. Although not defined within the context of trade secrets, some limited criminal remedies are potentially available under the National Cybercrime Law 2015 for the unlawful access to, misappropriation of, and theft of trade secrets. Article 2 provides maximum prison sentences and fines of up to five years' imprisonment and a fine of KWD3,000-20,000 for illegally accessing information held on computers, data processing systems, data networks, or other sites for electronic data storage. Local legal analysis suggests that trade secret protection and the protection of confidential information is not a well-developed legal field in Kuwait, with limited case law available.

Commercialization of IP Assets and Market Access

26. Barriers to market access: Both general and sector-specific *de facto* and *de jure* localization requirements exist in Kuwait. Foreign ownership has historically been highly restricted with a requirement that majority ownership (51%) of equity in a private enterprise be retained by a Kuwaiti or GCC national. The foreign investment agency Kuwait Direct Investment Promotion Authority has relaxed this requirement in the last few years by providing a limited number of exemptions and incentives to encourage foreign direct investment. For example, in 2015 IBM was

allowed to open a 100% foreign-owned enterprise. But local majority ownership remains a formal legal requirement under the Companies Law 2016. Article 38, which defines incorporation requirements, states, "The Company Contract of the General Partnership Company shall include the following particulars. ... The company's capital, the membership interest of each partner in the capital, a statement of any in-kind contribution, its nature and the assessed value. Kuwaiti partners shall own no less than 51% of the company's capital." Localization and technology transfer are also key facets of Kuwait's approach to foreign investment. For example, Article 29 of the investment promotion law (Law No. 116 of 2013) states clearly that the transfer of technology and transfer of know-how and skills is part of the evaluation process with respect to any incentives and exemptions (including local ownership) to be granted to foreign entities: "The value, type and duration of incentives and exemptions granted for investments, each according to its type and nature, shall be connected to all or some of the following criteria. ... The transfer and settlement of technology and modern management methods as well as practical, advanced technical and marketing experience into the State of Kuwait ... Creation of job opportunities for, and training of the national workforce." Both Director General Decision 18 of 2018 and 16 of 2016 link the level of technology transfer achieved with the granting and rate of tax exemptions provided to foreign entities. Finally, the national hydrocarbon entities, including Kuwait Oil Company, include technology transfer and transfer of know-how in their interactions and service agreements with foreign entities.

Enforcement

37. Effective border measures: Under Article 37 of the copyright law, Kuwaiti customs officials are granted *ex officio* authority to act against suspected infringing goods. The article states that "customs authorities may, on their own initiative or at the request of the right holder, order a reasoned decision not to release" suspected goods. There is no indication whether this right also applies to goods in transit and not intended for the Kuwaiti domestic market. The USTR suggests that although still challenging, overall enforcement efforts taken by the Kuwait General Administration for Customs Intellectual Property Rights Unit have improved over the past few years. Specifically, the USTR states that Kuwaiti customs no longer allows

“shipments of counterfeit goods under seizure to be exported.” The GCC Trademark Law Article 38(4) provides similar authority as well as a notification system whereby rights-holders can notify customs authorities of suspected infringing goods. The *ex officio* authority under the GCC Trademark Law also applies to goods in transit.

38. Transparency and public reporting by customs

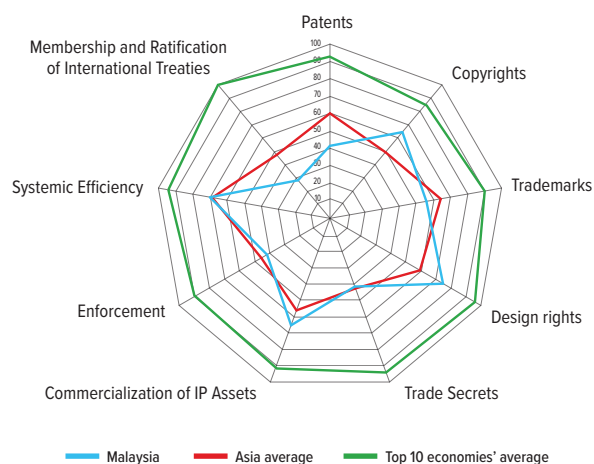
authorities of trade-related IP infringement: The Kuwaiti General Administration of Customs tracks and measures customs-related activities, including enforcement activities against counterfeit goods. Annual reports are available on the authority’s website (up until 2010) and news bulletins are periodically published describing anticounterfeiting/ anti-smuggling initiatives; in 2019 the government published several news bulletins on the authority’s website. However, the enforcement data on seizures relating to IP rights-infringing goods does not include information about the country of origin of seized goods and is not organized in a systematic or dedicated fashion.

Membership and Ratification of International Treaties

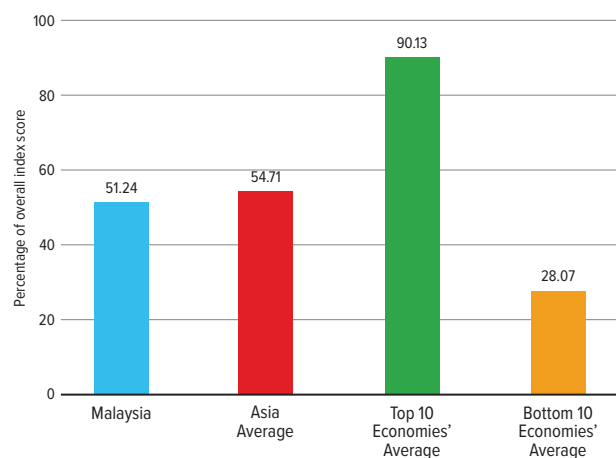
Kuwait is only a contracting party to one of the treaties included in the IP Index, the Patent Cooperation Treaty. Kuwait has not concluded any post-TRIPS FTAs with substantive IP provisions.

MALAYSIA RANK 27/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Increased action against copyright infringement through set-top boxes seen in 2019
- ✓ Generous R&D and IP-specific tax incentives in place
- ✓ Intellectual Property Corporation of Malaysia (MyIPO) has PPH agreements in place with both the EPO and JPO
- ✓ Strong focus by Malaysian government on IP as a commercial asset and technology transfer

KEY AREAS OF WEAKNESS

- ✗ Government use license (the equivalent of a compulsory license) issued in 2017 for sofosbuvir, a new breakthrough medicine to treat hepatitis C
- ✗ *De facto* RDP full term of protection not offered to new products
- ✗ Patent term restoration not offered

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		3.75	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.75
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.75
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	0.50	18. Protection of well-known marks	0.50
9. Patent opposition	0.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
Category 2: Copyrights, Related Rights, and Limitations		4.53	
10. Copyright (and related rights) term of protection	0.53	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.75	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	1.25	Category 8: Systemic Efficiency	3.50
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	3.92	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	2.00
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	2.92	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.43	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.49	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.50		
TOTAL: 25.62			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Malaysia's overall score has increased from 49.70% (22.37 out of 45) in the seventh edition to 51.24% (25.62 out of 50) in the eighth edition. This reflects a relatively mixed performance on the new indicators added to the Index and a score increase on Indicators 12 and 40.

Copyrights, Related Rights, and Limitations

12. Expeditious injunctive-style relief and disabling of infringing content online: The Malaysian Communications and Multimedia Commission and the Ministry of Domestic Trade and Consumer Affairs have broad authority to censor all manner of content in Malaysia, including that suspected of infringing copyright. Data released by the MCMC suggests that between 2008 and 2016 access to close to 12,000 websites (11,684) had been disabled. Most of these sites were pornographic, with a minority relating to other offenses, including copyright infringement. Copyright infringement and, specifically, the disabling of access to sites that provide infringing content through set-top

boxes also increased in 2019. In February 2019 the MCMC disabled access to 246 such websites. In addition to acting on rights-holders' complaints about copyright infringement, the MCMC was also taking action on the sale of the hardware and set-top boxes themselves, as the majority on the market had not been certified or received regulatory approval for sale. This increased enforcement activity at a growing regional threat—neighboring Singapore has also seen a sharp increase in the consumption of pirated content through set-top boxes—is a positive step and has led to a score increase of 0.25 on this indicator.

Systemic Efficiency

40. Consultation with stakeholders during IP policy formation: The 2013 *National Policy on the Development and Implementation of Regulations*, a cross-departmental effort developed under the umbrella of the Malaysia Productivity Corporation, provides a very clear requirement that “regulators proposing new regulations or changes must carry out timely and thorough consultations with

affected parties.” In 2019 this policy was clearly and consistently applied in the field of IP policymaking as the Intellectual Property Corporation of Malaysia (MyIPO) held consultations on proposed changes to patent, trademark, and copyright laws and regulations. Because of this activity, Malaysia’s score on this indicator has increased by 0.25.

43. IP-intensive industries, national economic impact

analysis: Several parts of the Malaysian government are examining and understanding the relationship between IP rights and economic activity. Reforming the national IP environment formed part of Malaysia’s long-running national development plans Vision 2020 (*Wawasan 2020*) and the Knowledge-Based Economy Master Plan. The National Intellectual Property Policy linked the strengthening of the national IP environment with improving economic competitiveness and overall development. Several studies have been commissioned or supported by the Malaysian government that examine the relationship between IP rights and economic activity more broadly and sector-specifically. For instance, the 2008 *The Economic Contribution of Copyright-Based Industries in Malaysia*, commissioned by WIPO at the request of MyIPO, found the contribution of copyright-related industries to the Malaysian economy was substantial, amounting to a value added of the equivalent of 5.8% of GDP and 7.5% of total employment. In 2015 the OECD published *Boosting Malaysia’s National Intellectual Property System for Innovation*, a project conducted with the Malaysian Industry-Government Group for High Technology. In addition, MyIPO takes an active role in promoting the commercialization and use of IP assets within the broader economy. Since the mid-2010s the office has promoted the valuation, buying, and selling of IP assets through its “IPR Market” portal. However, there is no government program in place that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

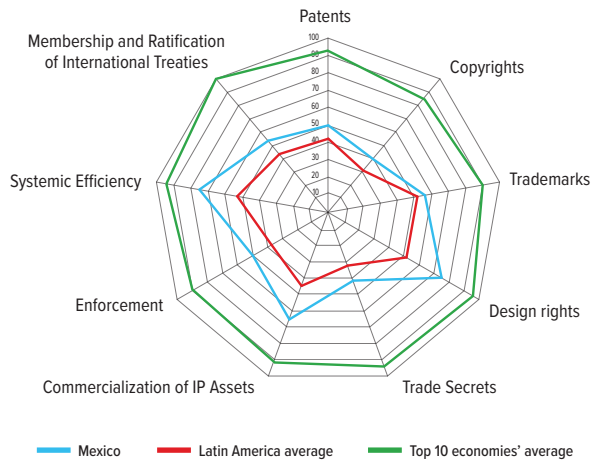
Membership and Ratification of International Treaties

Malaysia’s overall score on this category has doubled, rising from 1 to 2 as a result of the increased number of international treaties included in the Index. As a proportion of the available score for this category, Malaysia’s performance has increased from 25% (a score of 1 out of

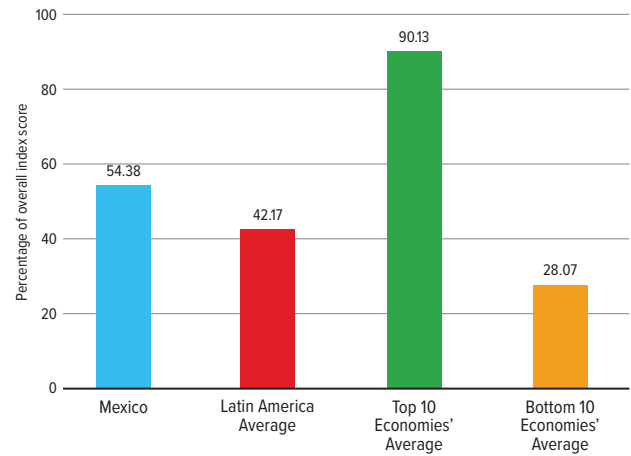
4 indicators) to 28.57% (a score of 2 out of 7 indicators). Malaysia is a contracting party to the WIPO Internet Treaties, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, and the Patent Cooperation Treaty. Malaysia is not a contracting party to the Singapore Treaty on the Law on Trademarks; the Patent Law Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991; the Convention on Cybercrime; or the Hague Agreement Concerning the International Registration of Industrial Designs. Malaysia has not concluded any post-TRIPS FTAs with substantial IP provisions. Malaysia is one of the contracting parties to the CPTPP. However, as noted in previous editions, it is not clear that the current government aims to ratify and accede to the treaty. In September 2018, Prime Minister Mahathir Mohamad publicly stated that the government was still examining the “pros and cons” of the CPTPP.

MEXICO RANK 23/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Term of protection for industrial design rights extended to 25 years
- ✓ Efforts to ease ability to commercialize IP assets and develop public-private partnerships, particularly for public research organizations and universities
- ✓ Dedicated endeavor to streamline IP review process and criminal justice system and harmonize to international standards
- ✓ Efforts to increase awareness of importance of IP rights

KEY AREAS OF WEAKNESS

- ✗ Partial and ambiguous protection for life sciences IP
- ✗ Gaps in laws and enforcement against online and source piracy of copyright-infringing content
- ✗ Significant gaps in application of remedies, such as severe delays and difficulty securing adequate damages
- ✗ Inadequate border measures for trade-related infringement of IP rights

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	0.74	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.25	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.75
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 4: Design Rights, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	0.50	18. Protection of well-known marks	0.50
9. Patent opposition	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
Category 2: Copyrights, Related Rights, and Limitations		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.79	Category 5: Industrial Design, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	1.25	Category 8: Systemic Efficiency	3.75
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.50	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	0.25	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	3.92	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	0.50	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	3.75
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.75
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	3.49	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.48	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.51	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.50
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	1.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.75		
37. Effective border measures	0.00		
TOTAL: 27.19			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Mexico's overall score has increased from 53.20% (with a score of 23.94 out of 45) in the seventh edition to 54.38% (with a score of 27.19 out of 50) in the eighth edition. This is driven by a fairly strong performance on the new indicators added to the Index.

Patents, Related Rights, and Limitations

5. Pharmaceutical-related patent enforcement and resolution mechanism: Modifications to the Mexican Health Law proposed by the Senate would reduce the scope of the existing linkage system regarding certain pharmaceutical patents. Under the revised system, only one patent could be listed per each new chemical entity, and patents for biologics would not be considered. As mentioned in past editions of the Index, the biopharmaceutical industry already experiences major challenges surrounding the ability to prevent market authorization of infringing formulation and use patents, as well as generally in securing timely and effective remedies for patent infringement through courts in

Mexico. If adopted, this reform would be a highly negative move by the Mexican authorities that would further devalue the existing linkage regime and rights-holders' ability to enforce their patents.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: Several Mexican government agencies measure and examine the relationship between IP rights and economic activity. For example, since 2013 the Mexican National Institute of Statistics and Geography (INEGI) has issued an annual bulletin estimating the value of IP products in the Mexican economy looking at Gross Fixed Capital Formation (GFCF). As part of Mexican GFCF, IP products were valued at 176,099 million pesos in 2017, or 3.6% of the total. This represents a decrease from 2016, when IP products were valued at 4.12% of total investment. There have also been more sector-specific studies published that examine the economic contribution of IP-intensive industries. For example, in 2006 WIPO

commissioned a study on the economic impact of the creative industries in Mexico carried out by a local consultancy. The report, *The Economic Contribution of Copyright-Based Industries in Mexico*, found that in 2003 the copyright-based industries generated a value equivalent to 4.77% of GDP and employed about 11% of total workers. More broadly, the Mexican IP authority, IMPI, regularly hosts conferences and workshops on the creation and commercialization of IP assets. Other governmental bodies also measure levels of innovation-related activities. In 2014 INEGI in collaboration with the National Council of Science and Technology published the latest available biennial “Survey on Innovation and Technological Development.” First launched in 2006, the survey captures information related to human and financial resources allocated to research and technological development activities in the private, nonprofit, higher education, and government sectors. The survey includes information on tech transfer such as income from royalties and other IP-related transactions. However, overall, there is no government program that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

Membership and Ratification of International Treaties

49. The Hague Agreement Concerning the International Registration of Industrial Designs: In September 2019 the Mexican Senate approved of Mexico’s accession to the Hague System (Hague Agreement and Geneva Act). Accession was made possible by the reform of the Industrial Property Law, specifically the chapter related to Industrial Designs, carried out in 2018.

50. Post-TRIPS FTA: As noted in past editions, Chapter 20 of the original USMCA treaty signed in 2018 had the potential to strengthen Mexico’s national IP environment. The USMCA included many critical provisions such as:

- Stronger pharmaceutical-related IP protection, including regulatory data protection terms of 5 years for new chemical entities (NCEs) and 10 years for biologics;
- More effective trade secret protection including criminal sanctions;

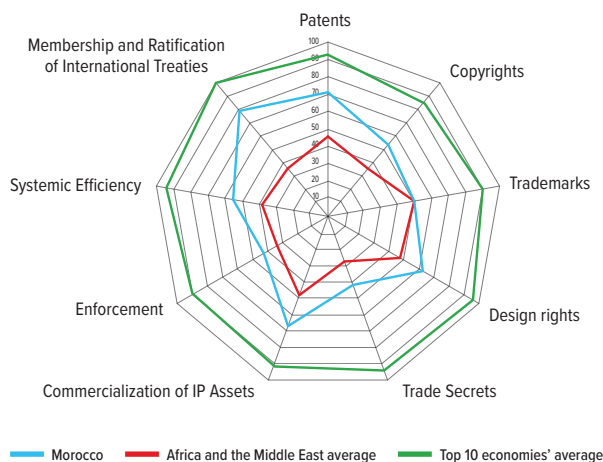
- *Ex officio* border enforcement against all suspected counterfeit goods including goods in-transit; and
- Strengthened copyright provisions, including a longer term of protection, digital rights management (DRM)/technological protection measures (TPM), and exceptions and limitations limited to the long-standing, internationally recognized three-step test.

Unfortunately, the original agreement signed in November 2018 has since been substantively revised. In December 2019 Speaker of the House Nancy Pelosi announced that a revised USMCA had been agreed with the White House, Canada, and Mexico. The text released by USTR illustrates that important parts of the original USMCA had either been completely removed or fundamentally altered. This includes critical provisions relating to biopharmaceutical IP protection and incentives. Specifically, the revised agreement:

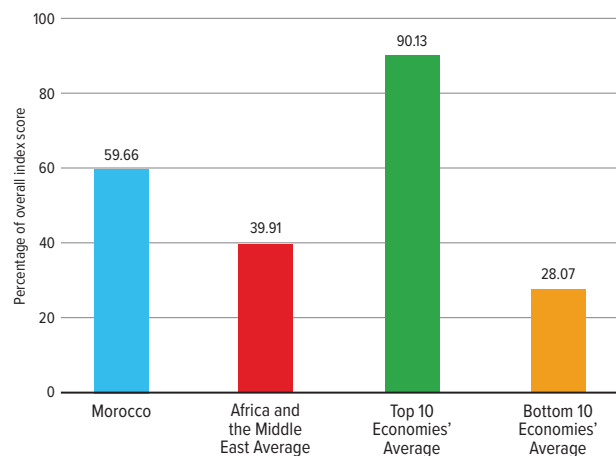
- removed provisions relating to a 10-year term of regulatory data protection for biologic medicines;
- weakened patentability standards by not allowing second and additional use claims;
- weakened administrative mechanisms that link the registration and market approval of a follow-on product to the exclusivity status of a reference product; and
- weakened provisions relating to term restoration for biopharmaceutical products.¹⁶

At the time of research, the Mexican Congress had not passed any legislation implementing the revised USMCA. The Index will continue to monitor these developments in 2020.

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Fairly well-developed national IP system—highest-performing middle-income economy in Index
- ✓ Strong protection for patents and related rights
- ✓ U.S.-Morocco FTA and agreements with EU have encouraged Morocco to strengthen IP environment and related standards
- ✓ PPH in place with Spain
- ✓ Moroccan IP Office (OMPIC) offers validation of all EPO registered patents

KEY AREAS OF WEAKNESS

- ✗ Challenging enforcement environment: high rates of physical counterfeiting and online piracy
- ✗ BSA estimates a software piracy rate of 64%
- ✗ Some uncertainty about practical availability of patents for CIIIs

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations	6.38	12. Expedient injunctive-style relief and disabling of infringing content online	0.50
1. Patent term of protection	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.50
2. Patentability requirements	0.75	14. Scope of limitations and exceptions to copyrights and related rights	0.50
3. Patentability of computer-implemented inventions	0.50	15. Digital rights management legislation	0.50
4. Plant variety protection, term of protection	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	1.00	Category 3: Trademarks, Related Rights, and Limitations	2.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	0.63	18. Protection of well-known marks	0.25
8. Membership of the Patent Prosecution Highway (PPH)	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
9. Patent opposition	0.00	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
Category 2: Copyrights, Related Rights, and Limitations	3.74	Category 4: Design Rights, Related Rights, and Limitations	1.25
10. Copyright (and related rights) term of protection	0.74	21. Industrial design term of protection	1.00
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.75
Category 5: Trade Secrets and the Protection of Confidential Information	1.25	Category 8: Systemic Efficiency	2.75
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	4.00	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	5.50
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	2.96	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.35	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.50
33. Software piracy rates	0.36	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.50		
TOTAL: 29.83			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Morocco's overall score has increased from 54.30% (24.44 out of 45) in the seventh edition to 59.66% (29.83 out of 50) in the eighth edition. This is due to a strong performance on the new indicators added to the Index and a score increase on indicator 7.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Article 19 of the Law on the Protection of New Plant Varieties provides a minimum term of protection of “not less” than 20 years for “agricultural crops” and “not less than 25 years for trees and vines.”

7. Pharmaceutical patent term restoration: This year we have changed the methodology used to calculate the score on this indicator. This indicator now consists of two distinct variables: first, the existence of a term of patent restoration for pharmaceutical products due to the prolonged research, development, and regulatory approval periods for such

products; and second, the existence of any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration including for industrial policy purposes. Of the available score for this indicator, 0.75 is allocated to the existing term of protection compared to the current baseline rate of five years term restoration used in the U.S., EU, and Japan. The remaining 0.25 is allocated on the basis of a given economy providing any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration including for industrial policy purposes. As a result of these changes Morocco's score has increased to 0.63.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: The Intellectual Property Corporation of the Moroccan Office of Industrial and Commercial Property (OMPIC) has a pronounced and consistent focus in all its work on promoting the use and commercialization of IP assets. Most noteworthy is the agency's guiding document,

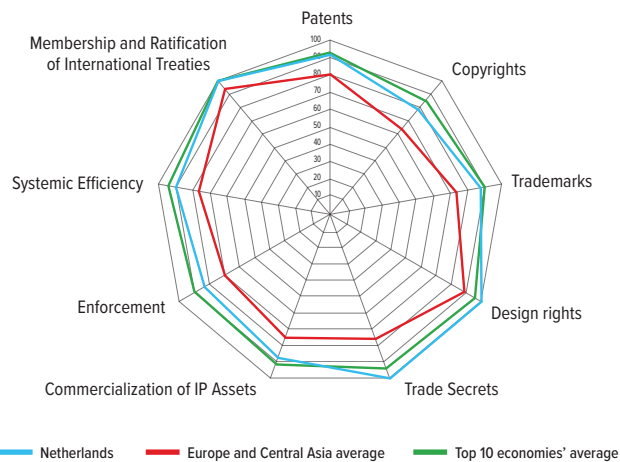
the *Strategy of Industrial and Commercial Property 2016-2020 (Stratégie de l'Horizon 2016-2020)*. The strategy clearly spells out the link between IP rights and economic activity and its importance to the development of the Moroccan economy. The OMPIC has also researched the economic value generated by IP rights and IP-intensive industries. For example, in 2010 the OMPIC collaborated with WIPO to publish the report *On the Economic Impact and Potential of the Trademark System in Morocco (Sur l'impact et le potentiel économiques du Système des marques au Maroc)*. There are other examples of Moroccan state entities working with international institutions in mapping and measuring the economic impact IP-intensive industries have on the Moroccan economy. For example, in 2005 the Ministry of Culture together with UNESCO produced a study of the publishing sector in Morocco, *Etat des lieux du secteur du livre au Maroc*. However, overall there is no government program in place that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

Membership and Ratification of International Treaties

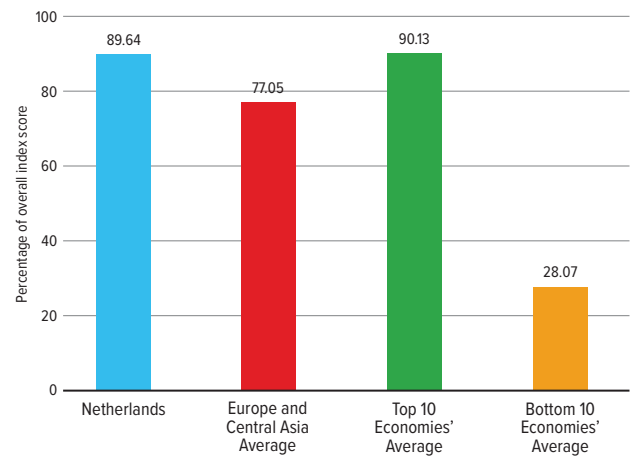
Morocco's overall score on this category has improved substantially, rising from 2 to 5.5 as a result of the increased number of international treaties included in the Index. Morocco is a contracting party to the WIPO Internet Treaties; the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; the Patent Cooperation Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991; the Convention on Cybercrime; and the Hague Agreement Concerning the International Registration of Industrial Designs (although Morocco is one of the few economies that is also not a contracting party to the 1999 Geneva Act). Morocco is not a contracting party to the Singapore Treaty on the Law on Trademarks or the Patent Law Treaty. Morocco has concluded a post-TRIPS FTA, as the 2004 U.S.-Morocco FTA contains a separate and distinct IP chapter. As noted, this agreement has been pivotal in strengthening Morocco's national IP environment, including for biopharmaceuticals and copyright-related industries.

NETHERLANDS RANK 7/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Transposition of EU Trade Secrets Directive in 2018 improves Dutch trade secret environment
- ✓ Generous R&D and IP-specific tax incentives in place
- ✓ Advanced and sophisticated national IP environment
- ✓ Sector-specific IP rights in place
- ✓ Membership of all major international PPH tracks through EPO

KEY AREAS OF WEAKNESS

- ✗ Registration requirements in place for licensing agreements
- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Netherlands' and EU's research and IP-based biopharma industry
- ✗ Proposals to explore the use of compulsory licensing for medicines whose price is deemed excessive is outside international norms

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		8.25	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.75
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.75
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.75
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.75
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	1.00
9. Patent opposition	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
Category 2: Copyrights, Related Rights, and Limitations		5.49	
10. Copyright (and related rights) term of protection	0.74	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.75	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	3.00	Category 8: Systemic Efficiency	4.50
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	1.00	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	5.25	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	5.83	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.80	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.78	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.75		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	1.00		
TOTAL: 44.82			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Netherlands' overall score has increased from 89.04% (40.07 out of 45) in the seventh edition to 89.64% (44.82 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index but a score decrease on Indicator 7.

Patents, Related Rights, and Limitations

6. Legislative criteria and active use of compulsory licensing of patented products and technologies: Since 2017 the Dutch health authorities have promised to explore compulsory licensing for medicines whose price is deemed excessive, acting on the advice included in a report by the Council for Public Health and Society, *Development of New Medicines – Better, Faster and Cheaper*, which encouraged compulsory licensing to strengthen the government's position in price negotiations. The Council for Public Health and Society is an official government advisory body set up in 2015 to develop new substantive, organizational, social, and ethical views on the relations

between the public health sector and other domains of society. One of its four main areas of investigation for 2015-19 was the role of government in a changing welfare state. Threats of the compulsory licensing of medicines as a basis for price negotiations is something usually associated with low-income developing economies with underdeveloped health systems and limited financial resources, not a high-income EU and OECD Member State with one of the most sophisticated health systems in the world. Issuing a compulsory license undermines the basic idea of the protection and sanctity of property rights, including IP rights in place to protect and incentivize biopharmaceutical innovation. As international law, including the TRIPS treaty, and existing Dutch and EU laws clearly state, although there are extreme circumstances involving national emergencies under which property rights may be overridden—including the issuing of a compulsory license for a medicine—cost is not a relevant justification or basis for compulsory licensing or the overriding of any granted form of biopharmaceutical exclusivity. Moreover,

the use of these types of licenses threatens the very foundation of the Netherlands' and EU's position as global leaders in innovation and high-tech industries, including biopharmaceuticals. As an industry the research-based biopharmaceutical sector is one of Europe's biggest success stories. Companies like Novartis, Roche, Sanofi Aventis, Novo Nordisk, AstraZeneca, and GSK are some of the largest, most innovative, and most successful research-based biopharmaceutical companies in the world. Not only do these companies have a long track record of producing life-saving medical innovations that have been or are currently being used by millions of patients across the world, but they are also an economic engine. More broadly, the overriding of biopharmaceutical IP rights on the basis of cost and price negotiations sets a wholly negative precedent that may be applied to other industries and sectors. If the Dutch government wishes to pay less, or nothing, for medicines using compulsory licenses, what is to say that this will not be applied to the procurement of medical devices, software, trains, automobiles, or any other high-tech product that the public sector purchases? Should the Dutch government move ahead with these proposals, the score on this indicator will be reduced to 0. The Index will monitor these developments in 2020.

7. Patent term restoration for pharmaceutical products:

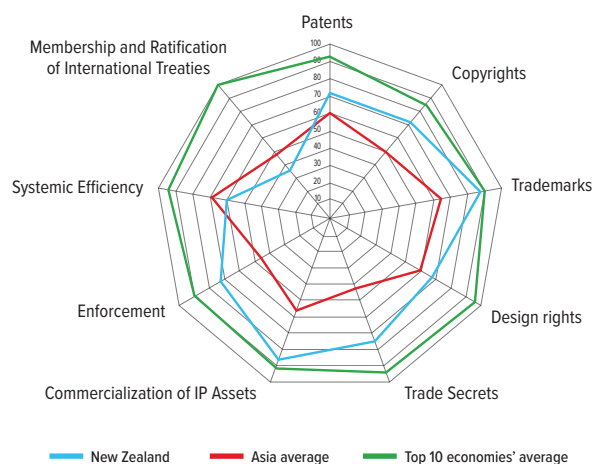
In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called "Supplementary Protection Certificates" (SPCs). One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an "SPC exemption". The overriding purpose of the proposal was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight

of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been or are currently being used by millions of patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is

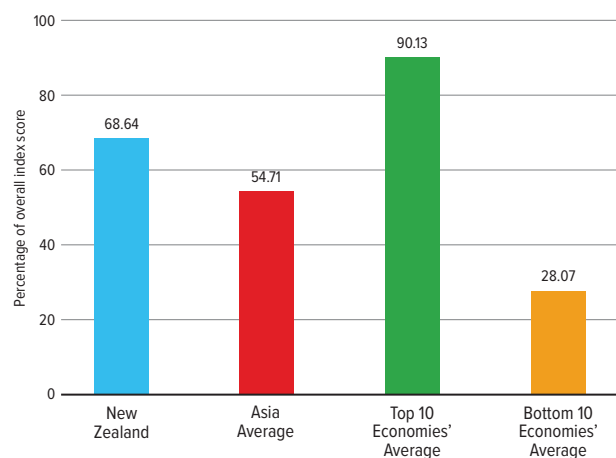
much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, “If the European Union is weakening IP standards to benefit its domestic industries, why shouldn’t we do the same?” Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe’s research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe’s research-based industries. Of note is the Danish government’s perceptive criticism of the policy: “While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**” [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, the Netherlands included.

NEW ZEALAND RANK 20/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New R&D tax incentives passed in 2019
- ✓ Legislative amendments following ratification of the CPTPP provide border officials with clear *ex officio* authority
- ✓ Fairly sophisticated national IP environment with strengths across most categories of the Index
- ✓ No significant barriers or restrictions on licensing activity and technology transfer

KEY AREAS OF WEAKNESS

- ✗ Practical application and net effect of Copyright (Infringing File Sharing) Amendment Act has been mixed, with few cases heard by Copyright Tribunal and most being dismissed on technicalities
- ✗ No patent term restoration in place for biopharmaceuticals
- ✗ Limited membership in international IP treaties

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		6.46	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.75	13. Availability of frameworks that promote cooperative action against online piracy	0.75
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	1.00
4. Plant variety protection, term of protection	0.96	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.75
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	1.00
9. Patent opposition	0.25	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
Category 2: Copyrights, Related Rights, and Limitations		3.50	
10. Copyright (and related rights) term of protection	0.53	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.75	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	0.60
		1.35	

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.50
Category 5: Trade Secrets and the Protection of Confidential Information	2.25	Category 8: Systemic Efficiency	3.00
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.75	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	5.17	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	2.50
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	5.06	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.72	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.84	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.75		
36. Criminal standards including minimum imprisonment and minimum fines	0.75		
37. Effective border measures	0.50		
TOTAL: 34.32			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

New Zealand's overall score has increased from 68.07% (30.63 out of 45) in the seventh edition to 68.64% (34.32 out of 50) in the eighth edition. This is driven by the country's mixed performance on the new indicators added to the Index, a slight score decrease on Indicator 10, and a score increase on Indicators 31 and 37.

Copyrights, Related Rights, and Limitations

10. Copyright (and related rights) term of protection:

In previous editions of the Index, we calculated the term of protection under New Zealand copyright law as the average of the minimum terms of protection for the majority of works (i.e., literary, dramatic, musical, artistic, sound, and film) of 50 years and copyright works made by a person employed or engaged by the Crown under a contract of service, apprenticeship, or service (100 years), divided by the baseline term of 95 years. We decided to revise this because it is not accurate to include the term of protection for Crown Copyright as an indicator for the general term of

protection allowed in New Zealand for the average rights-holder. As a result, the score on this indicator has been reduced by 0.13.

Commercialization of IP Assets and Market Access

31. Tax incentives for the creation of IP assets: In 2019 the New Zealand Parliament passed the Taxation (Research and Development Tax Credits) Bill. The new law provides an R&D tax credit up to 15% on qualifying expenditure. Previously, New Zealand had a rather convoluted system of R&D incentives based primarily on R&D grants and some limited tax incentives. The introduction of this legislation is a positive step for rights-holders and innovators in New Zealand and has resulted in a score increase of 0.33 on this indicator.

Enforcement

35. Preestablished damages and/or mechanisms for determining the amount of damages: New Zealand does not have statutory damages in place regarding the

infringement of IP rights. Instead, there are fairly well-established mechanisms for determining the damages generated by infringement. Depending on the IP right, infringed damages can, for example, be calculated using losses suffered by the infringed party or benefits accrued by the infringer, which, depending on the flagrancy of the infringement, can lead to the award of punitive or “exemplary” damages. However, local legal analysis suggests that damages awarded are often not significant enough to act as a deterrent, and New Zealand courts are reluctant to award exemplary damages. The Trans-Pacific Partnership Agreement (CPTPP) Amendment Act 2018 introduces some potentially important changes regarding trademark infringement. Specifically, amendments to the Trade Marks Act will now allow courts to grant “additional damages” depending on the flagrancy of the infringement and the extent to which the defending party benefited from the alleged infringement. The Index will monitor how, and if, these amendments are applied.

37. Effective border measures: The New Zealand Customs Service has traditionally had in place a notification system whereby rights-holders can record their registered trademarks and copyrighted goods. This recording system formed the basis for action to be taken by customs authorities against suspected infringing goods. Amendments to the Trade Marks Act in 2011 introduced a concept of “Enforcement Officers,” which includes customs authorities. Under these amendments, Enforcement Officers were granted powers of search, examination, and seizure. As noted in previous editions, it was not clear whether these powers amounted to a clear *ex officio* authority for customs officials to seize goods suspected of infringing IP rights and if they applied also to goods in transit. New Zealand was one of the first economies to ratify the CPTPP; the agreement came into effect on December 30, 2018. As part of its ratification process the New Zealand Parliament in late 2018 passed the Trans-Pacific Partnership Agreement (CPTPP) Amendment Act 2018. Although several important provisions of the TPP’s original IP chapter have been suspended, both the CPTPP and New Zealand’s implementing legislation contain some changes and improvements to New Zealand’s national IP environment, including in relation to border measures. Specifically, sections 9-10 of the amending legislation (the Principal Act) provide a clear *ex officio* authority to New

Zealand customs officers to detain and seize suspected infringing goods. Regarding copyright-infringing goods, the act states, “Any item in the control of the Customs may be detained in the custody of the chief executive or a Customs officer if a Customs officer has reasonable cause to suspect that the item is a pirated copy.” The act provides for similar language for suspected trademark-infringing goods. Because of these changes, the score on this indicator has increased by 0.25. Still, it remains unclear if these new powers apply also to goods that are in transit and not intended for the domestic New Zealand market.

Systemic Efficiency

43. IP-intensive industries, national economic impact

analysis: Various parts of the government of New Zealand engage in understanding and measuring the impact hi-tech and IP-intensive industries have on economic activity. For example, the Ministry of Business, Innovation, and Employment has for several years published a “sector reports series”—economic research that examines the state of all major sectors of the New Zealand economy. The series includes reports that examine high-tech manufacturing, knowledge-intensive services, and the ICT sector. Other government agencies have commissioned or supported work that examines other IP-intensive industries. For instance, in 2009 New Zealand Trade and Enterprise (New Zealand’s economic development and trade promotion agency) commissioned a study of the creative economy and its economic contribution to the New Zealand economy titled *The Creative Sector in New Zealand—Mapping and Economic Role*. However, there is no government program in place akin to those in other high-income developed OECD economies that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment. More broadly, unlike the work carried out by other major economies, including by the United States and EU institutions and Member States, the research carried out in New Zealand does not always reflect or include a recognition of the importance IP rights play as an incentive to the creation of IP assets.

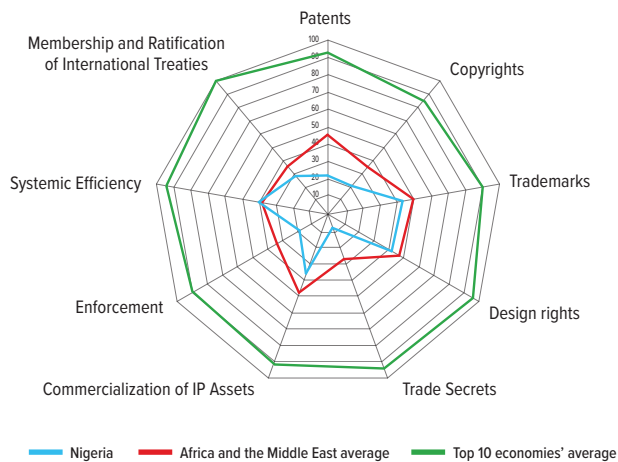
Membership and Ratification of International Treaties

New Zealand’s overall score on this category has improved, rising from 1 to 2.5 as a result of the increased number of

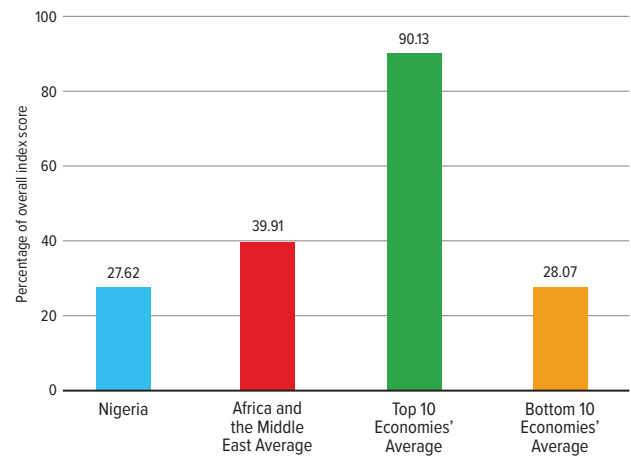
international treaties included in the Index. New Zealand is a contracting party to the WIPO Internet Treaties, the Singapore Treaty on the Law on Trademarks, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, and the Patent Cooperation Treaty. New Zealand is not a contracting party to the Patent Law Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991 (New Zealand is a member of the 1978 act); the Convention on Cybercrime; or the Hague Agreement Concerning the International Registration of Industrial Designs. New Zealand is one of the contracting parties to the CPTPP. The CPTPP retains important aspects of the original TPP's IP provisions, including provisions relating to trade secrets and border enforcement. However, numerous critical provisions have been suspended, including for patentable subject matter; biopharmaceutical-specific IP rights, such as regulatory data protection; copyright protection and enforcement; and protections relating to satellite and cable signals. As a result, the CPTPP does not conform to the modern standards of other post-TRIPS international trade agreements and no score has been allocated to New Zealand under this indicator.

NIGERIA RANK 50/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Ratified the WIPO Internet Treaties in 2017
- ✓ Despite overall challenging environment, ongoing enforcement efforts by NCC are encouraging

KEY AREAS OF WEAKNESS

- ✗ Overall weak and limited legal and regulatory framework with major forms of IP rights not in place
- ✗ Enforcement challenges persist—no national coordination, only ad hoc efforts
- ✗ Persistently high rates of physical and growing online piracy
- ✗ Software piracy estimated at 80% by BSA
- ✗ Localization barriers and restrictions in place on technology transfer and licensing activities
- ✗ NOTAP oversees all technology transfer and licensing between Nigerian entities and foreign licensors and has the power to evaluate and approve or disapprove technology transfer agreements, including evaluating royalty amounts

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		2.00	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.00	13. Availability of frameworks that promote cooperative action against online piracy	0.25
3. Patentability of computer-implemented inventions	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	0.00	15. Digital rights management legislation	0.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	1.75	
8. Membership of the Patent Prosecution Highway (PPH)	0.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.00	18. Protection of well-known marks	0.25
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
1.49		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.00
10. Copyright (and related rights) term of protection	0.74	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	0.85	
		21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	0.25	Category 8: Systemic Efficiency	2.00
23. Protection of trade secrets (civil remedies)	0.00	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	2.17	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	0.75	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.00	Category 9: Membership and Ratification of International Treaties	2.00
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.30	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.35	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.20	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.00		
TOTAL: 13.81			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Nigeria's overall score has decreased from 30.11% (13.55 out of 45) in the seventh edition to 27.62% (13.81 out of 50) in the eighth edition. This is driven by a weak performance on the new indicators added to the Index.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: There is no law or regulation in place regarding plant variety protection in Nigeria. At the time of research, the Nigerian Parliament was debating a new plant variety protection bill (the Plant Variety Protection Bill of Nigeria). Once this new legislation is passed Nigeria intends to accede to UPOV. In August 2019 UPOV issued a statement saying that the draft law conformed with the 1991 Act of the UPOV Convention and once the law was passed and in force Nigeria would qualify to accede to the treaty.

Systemic Efficiency

43. IP-intensive industries, national economic impact analysis: The past decade has seen a growing emphasis in government policymaking on encouraging innovation and the development and transfer of new technologies to and within Nigeria. For example, the National Office for Technology Acquisition and Promotion (NOTAP) is one of the more active agencies in developing a stronger tech transfer capacity within the Nigerian higher education sector. Building an innovation economy is also part of the national development program *Nigeria Vision 20:2020*. There are also some examples of government institutions supporting and commissioning studies on knowledge-intensive industries. For instance, the National Bureau of Statistics took part in and supported the research and publication of the 2013 *Mapping of Nigeria Creative Industries: Report of Lagos Pilot Study*, a project commissioned by the British Council and carried out by a local Nigerian academic. However, there is no government program in place that seeks to categorize and regularly

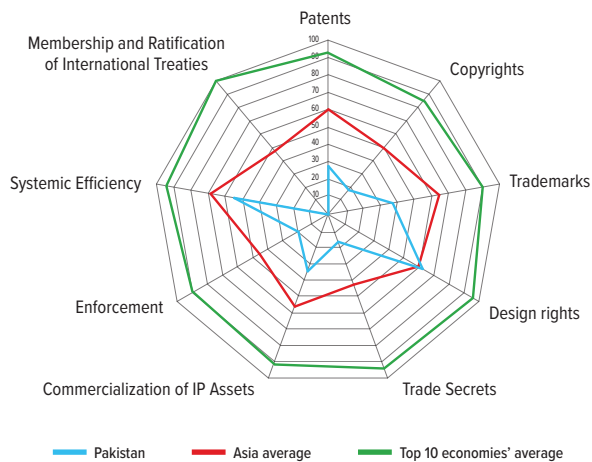
measure the aggregate contributions of the IP-intensive industries to national economic output and employment. For example, the Commercial Law Department of the Ministry of Industry, Trade and Investment (which oversees the registration of major IP rights in Nigeria) has no dedicated research program engaged in understanding and measuring the impact of IP rights and economic activity.

Membership and Ratification of International Treaties

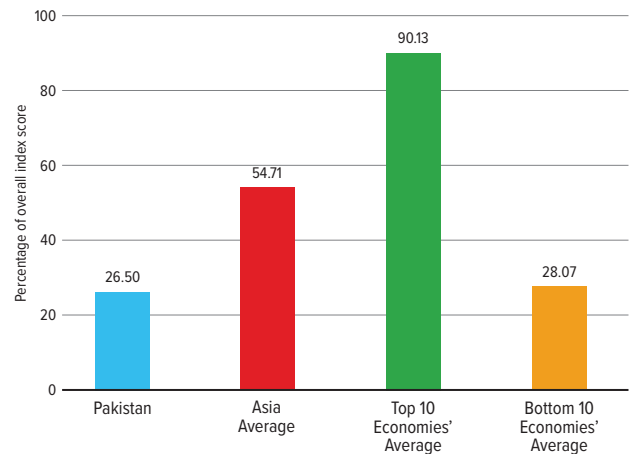
Nigeria is a contracting party to the WIPO Internet Treaties, the Patent Law Treaty, and the Patent Cooperation Treaty. Nigeria is not a contracting party to the Singapore Treaty on the Law on Trademarks; the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; the International Convention for the Protection of New Varieties of Plants, act of 1991; the Convention on Cybercrime; or the Hague Agreement Concerning the International Registration of Industrial Designs. Nigeria was invited to join the Convention on Cybercrime in 2017 and has until 2022 to make a formal decision. Nigeria has not concluded a major post-TRIPS FTA that includes substantial provisions on IP rights. Nigeria is a contracting party, but has not acceded, to the African Continental Free Trade Area, signed by 44 African countries in March 2018. The agreement holds the potential to fundamentally revolutionize economic activity in Africa by reducing barriers to trade and economic interaction across the entire continent. Parts of the Free Trade Area (Phase I) came into force in June 2019 and are now operational in a handful of economies, including Egypt and South Africa. Reports suggest that Phase II discussions (which include IP-related negotiations) are set to begin soon and potentially conclude in 2020.

PAKISTAN RANK 51/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Basic IP protection available in legislation
- ✓ Introduction of specialized IP courts and capacity building
- ✓ Greater efforts at public education, modernization of IP laws, and enhancing coordination among enforcement agencies

KEY AREAS OF WEAKNESS

- ✗ Limited sector-specific IP protection available
- ✗ Significant discrepancy between IP rights in law and level of practical enforcement
- ✗ Enforcement often arbitrary and nondeterrent (though efforts to improve are under way)
- ✗ High counterfeiting and piracy rates—latest BSA latest estimate puts software piracy at 83%

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		2.50	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.25	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	1.50	
8. Membership of the Patent Prosecution Highway (PPH)	0.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.00	18. Protection of well-known marks	0.25
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
1.28		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.00
10. Copyright (and related rights) term of protection	0.53	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	1.25	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	2.75
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	2.08	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.25	Category 9: Membership and Ratification of International Treaties	0.00
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	0.00
29. Direct government intervention in setting licensing terms	0.25	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.00
31. Tax incentives for the creation of IP assets	0.33	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.39	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.22	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.17	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.50		
TOTAL: 13.25			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Pakistan's overall score has decreased from 26.67% (12.0 out of 45) in the seventh edition to 26.50% (13.25 out of 50) in the eighth edition. This reflects a weak performance on the new indicators added to the Index but a score increase on Indicator 20.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Pakistan adopted a Plant Breeders' Rights Act in 2016, 17 years after starting the adoption process. As of 2019 the act had not yet been implemented; therefore, the registry had not begun receiving applications. While some of the provisions are largely modeled on the UPOV act of 1991, including the term of protection (25 years for trees and vines and 20 years for other plants), other provisions—notably the requirement on access and benefit sharing for the use of certain genetic resources—deviate from international practice and put a considerable burden on breeders.

9. Patent opposition: The IPO-Pakistan launched a comprehensive review of Pakistan's IP regime with the intended objective to better align it with international best practices. Amendments to the Patent, Copyright, and Trademark Ordinances were open for public consultation in the first quarter of 2019 and remain available on the IPO-Pakistan website. In November 2019 amendments to the 2003 Patent Rules that bring clarity to granting procedures and introduce the possibility of electronic applications were also opened for public consultation. The amendments to the Patent Ordinance delete section 23, which provides for an *inter-partes* opposition system that can be triggered within four months after an application is published. A new Board of Appeal made up of legal and technical officers appointed by IPO is being created and tasked *inter alia* with revising decisions on patent grants. Lifting the pre-grant opposition system would streamline granting procedures without denying the right of third parties to challenge the validity of the patent. If adopted in their current form, amendments to the Patent Ordinance would result in a score rise for Indicator 9.

Copyrights, Related Rights, and Limitations

15. Digital rights management legislation: Amendments to the Copyright Ordinance add two provisions (sections 56A and 56B) that punish the circumvention of Digital Right Management and Technical Protective Measures with imprisonment and/or a fine. If adopted, the current drafts could result in a score increase for Indicator 15.

Trademarks, Related Rights, and Limitations

20. Availability of frameworks that promote cooperative private action against online sale of counterfeit goods:

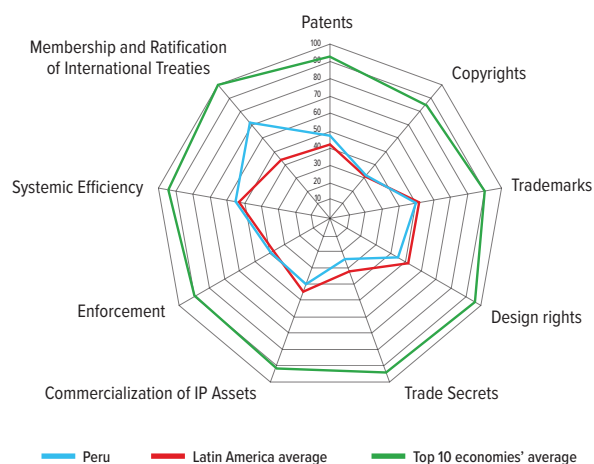
The Pakistani e-commerce market is growing on the back of rapidly increasing internet penetration, which has witnessed an average growth rate of 22% per year over the past few years. As a result, some of the biggest e-commerce platforms (OLX, Darez, Pakwheels, Megabazaar, and Zameen) have recently started to provide the option to submit notification of IP infringing materials by email. In recognition of this first step toward addressing online IP infringements, the score of Indicator 20 has increased by 0.25.

Membership and Ratification of International Treaties

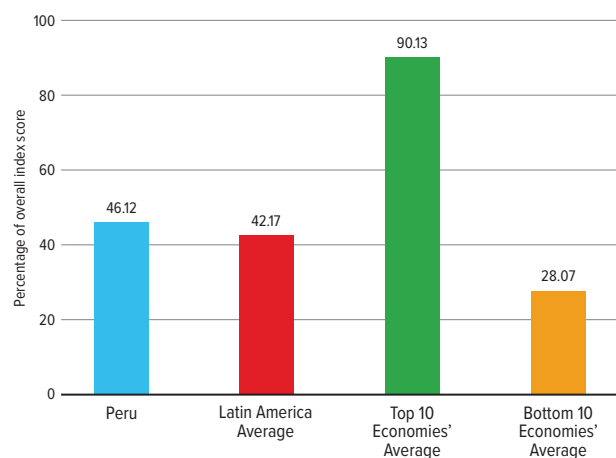
As mentioned in last year's Index, IPO-Pakistan stated its plans to accede to various international IP treaties, including the Protocol Relating to the Madrid Agreement and the Patent Cooperation Treaty. IPO held an inter-ministerial meeting on Pakistan's Accession to the Madrid Agreement in July 2019, but at the time of research accession had not been formalized. Draft amendments to the Trademark Ordinance that add a new chapter to standardize office practices and streamline procedures in line with the Madrid Agreement remain pending.

PERU RANK 30/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Joined the Global Patent Prosecution Highway in 2019
- ✓ INDECOPI continued suspending access to copyright-infringing websites in 2019
- ✓ Basic IP protections available
- ✓ Border measures provided for in legislation
- ✓ Efforts to coordinate IP rights enforcement across government agencies and to raise awareness on the importance of IP protection

KEY AREAS OF WEAKNESS

- ✗ Administrative and regulatory barriers in place for licensing and technology transfer
- ✗ Limited patentability and lack of effective IP protection for life sciences
- ✗ Rudimentary digital copyright regime (with some exceptions)
- ✗ High rates of counterfeiting and piracy
- ✗ Gaps in IP enforcement on the ground

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		4.25	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.25	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	0.25
9. Patent opposition	0.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
Category 2: Copyrights, Related Rights, and Limitations		2.24	
10. Copyright (and related rights) term of protection	0.74	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	0.40
		0.90	

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.50
Category 5: Trade Secrets and the Protection of Confidential Information	0.75	Category 8: Systemic Efficiency	2.75
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.25	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	2.42	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	0.75	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.00	Category 9: Membership and Ratification of International Treaties	5.00
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.25	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	2.75	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.37	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.38	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.50		
TOTAL: 23.06			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Peru's overall score has increased from 40.13% (18.06 out of 45) in the seventh edition to 46.12% (23.06 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index and score increases on Indicators 8 and 12.

Patents, Related Rights, and Limitations

6. Legislative criteria and active use of compulsory licensing of patented products and technologies:

In September 2019 the National Institute for the Defense of Competition and the Protection of Intellectual Property (INDECOPI) published the Guidelines for the Authorization of Compulsory Patent Licenses (Resolution No. 2706) that spells out procedural aspects of the issuance of a compulsory license not defined in previous regulations. Under this guidance compulsory licenses can be issued on four grounds: lack of exploitation of patents, public interest, anticompetitive practices, and dependence on patents. In the case of compulsory licenses issued for public interest

reasons, a decree declaring the existence of such reasons will be necessary. Applicants are not required to prove that they tried to obtain a voluntary license and patent holders will not be able to question the reasons that led to the issuance of the decree. As in other economies considering the use of compulsory licenses, the cost of medication has figured heavily in the Peruvian debate. Yet, cost is not a relevant justification or basis for compulsory licensing under the TRIPS agreement. TRIPS Article 31, including the amendments introduced in the 2001 Doha Ministerial Declaration, and the subsequent General Council decision allowing the export of medicines produced under a compulsory license (outlined in paragraph 6) form the legal grounds for compulsory licensing for medicines. The chairman's statement accompanying the General Council decision (concerning paragraph 6 of the Doha Declaration) underscores that these provisions are in no way intended for industrial or commercial objectives, and, if used, it is expected that they would be aimed solely at protecting public health. In addition, Article 31 and the Doha

Declaration suggest that compulsory licensing represents a “measure of last resort,” intended primarily for public health and humanitarian emergencies such as pandemics, and to be used only after all other options for negotiating pricing and supply have been exhausted. Should the Peruvian government move ahead with the issuing of a compulsory licenses under these circumstances, the score on this indicator will be reduced to 0. The Index will monitor these developments in 2020.

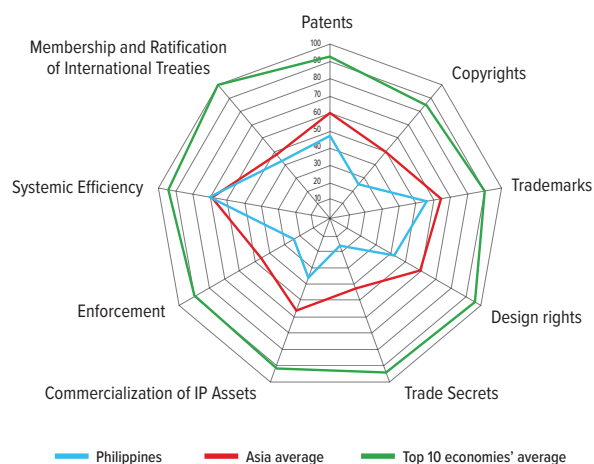
Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking); and 12. Expeditious injunctive-style relief and disabling of infringing content online:

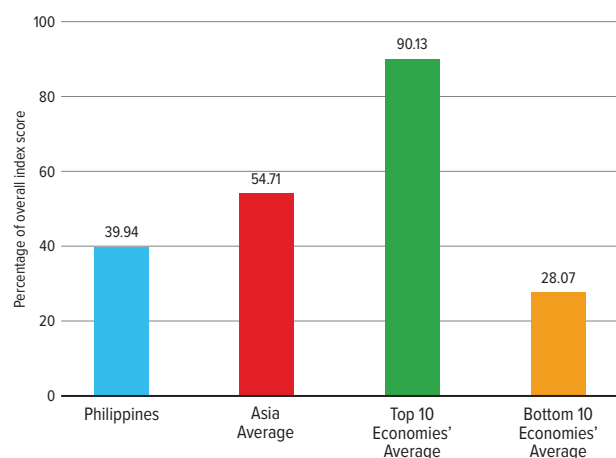
The Copyright Act and associated laws provide for a basic framework of general exclusive rights. Despite its obligation to do so under Article 29(b)(ix) of the U.S.-Peru Free Trade Agreement, Peru has yet to introduce a notice-and-takedown mechanism to combat infringing content online. Similarly, Peru does not have in place an established and clear system of injunctive-style relief whereby ISPs can disable infringing content through administrative or judicial relief. On a positive note, Peruvian authorities have acted against infringing sites, but only on an ad hoc basis. For example, last year INDECOPI suspended access to the infringing website Foxmusica. This positive action continued in 2019 with the agency disabling access to six websites at the request of Spanish football division *La Liga*. Additionally, INDECOPI is reportedly considering *ex officio* action and measures targeting websites established outside Peru. The Copyright Commission of INDECOPI also ordered the e-commerce platform Mercado Libre to remove the links to 28 ads offering counterfeit products linked to the Pan American Games of 2019. Because of this stronger level of enforcement, the score on Indicator 12 has increased by 0.25.

PHILIPPINES RANK 37/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Fast-track procedure for trademark registration scheduled to be introduced by IPOPHIL
- ✓ Draft amendments to IP Code would strengthen criminal sanctions
- ✓ R&D tax incentives in place
- ✓ Most basic IP rights provided for in legislation
- ✓ Growing specialization and capacity building, such as in administrative IP courts

KEY AREAS OF WEAKNESS

- ✗ Barriers in place for licensing and technology transfer
- ✗ Significant gaps in life sciences and content-related IP rights
- ✗ Online piracy rampant, with digital protection largely unaddressed
- ✗ Software piracy estimated at 64% by BSA

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		4.25	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.50	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.25	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	2.25	
8. Membership of the Patent Prosecution Highway (PPH)	0.50	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.50	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
1.78		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.53	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	0.85	
		21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	3.50
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	2.17	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.25	Category 9: Membership and Ratification of International Treaties	3.00
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.25	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	1.67	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.31	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.36	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.00		
TOTAL: 19.97			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

The Philippines' overall score has increased from 36.00% (16.2 out of 45) in the seventh edition to 39.94% (19.97 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index and a score increase on Indicator 20.

Copyrights, Related Rights, and Limitations

12. Expeditious injunctive-style relief and disabling of infringing content online; and 13. Availability of frameworks that promote cooperative action against online piracy: In 2019 the Philippines moved closer to adopting substantive changes to its copyright environment that will provide rights-holders with more effective ways of combating online infringement. Specifically, two bills introducing a notification regime and injunctive-style relief are pending in the national parliament, the Congress of the Philippines. House Bill 9148 would allow the national IP office IPOPHIL to issue notice-and-takedown orders to address online piracy and counterfeiting. The bill would

enable copyright owners to claim damages from infringing sites and grant them ownership of the domain name of the infringing site. The Philippines Online Infringing Act, which is being considered by the Senate (Senate Bill No. 497), would allow IPOPHIL to petition the National Telecommunication Commission to cancel an ISP's operating license should it fail to remove infringing content within 10 days from receiving a notification from IPOPHIL. These positive steps would result in score increases on relevant indicators. The Index will continue to monitor these developments in 2020.

Trademarks, Related Rights, and Limitations

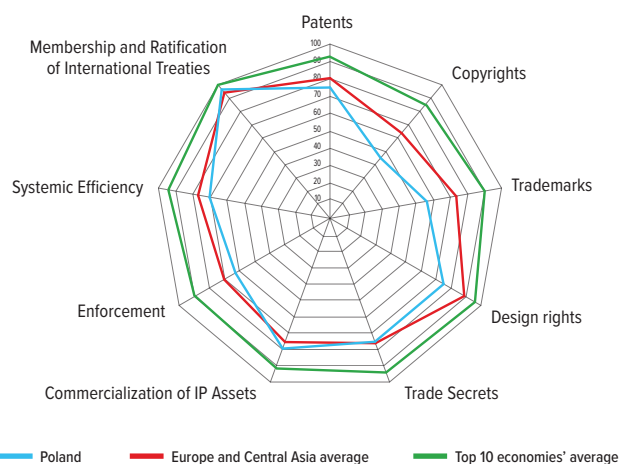
20. Availability of frameworks that promote cooperative private action against online sale of counterfeit goods:

In 2019 IPOPHIL launched a focus group discussion with online platforms to address how to more effectively respond to violation notices and how to more preemptively intervene to preclude online access to counterfeit goods. One of the Philippines' biggest online retailers, Zalora,

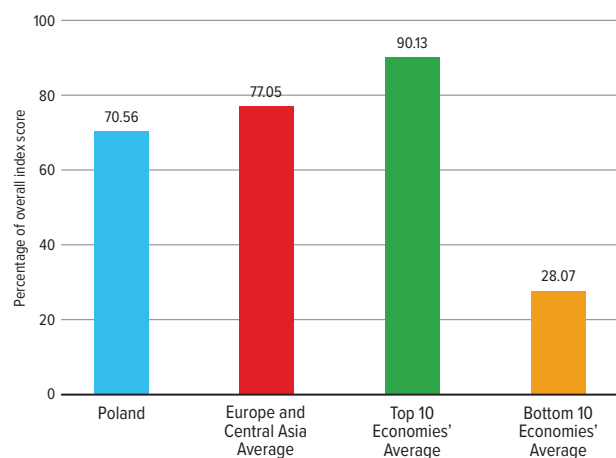
recently introduced tougher filtering procedure for sellers to be granted access to the commercial platform. Similarly, in 2019 another of the biggest retailers, Lazada, joined Alibaba's IP Protection Platform, which works as a one-stop shop for rights-holders to submit and track infringement notices. Because of these positive developments, the score on this indicator has increased by 0.25.

POLAND RANK 18/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New R&D tax incentives in place
- ✓ Transposition of EU Trade Secrets Directive in 2018 harmonizes Polish trade secret law with EU standards
- ✓ Legal framework for IP protection largely aligned with EU standards
- ✓ Certain sector-specific IP rights available (including for life sciences)

KEY AREAS OF WEAKNESS

- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Poland's and the EU's research and IP-based biopharma industry
- ✗ Gaps in online copyright protection, including an effective notice-and-takedown system, though a basis for injunctive-style relief exists
- ✗ Relatively high levels of online piracy in comparison with other high-income economies

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		6.75	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.25	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	0.50
9. Patent opposition	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
Category 2: Copyrights, Related Rights, and Limitations		3.16	
10. Copyright (and related rights) term of protection	0.66	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.25	Category 8: Systemic Efficiency	3.50
23. Protection of trade secrets (civil remedies)	0.75	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.50	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	4.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	0.75	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	6.75
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	4.37	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.58	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.54	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	1.00		
TOTAL: 35.28			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Poland's overall score has increased from 66.53% of the total possible score (29.94 out of 45) in the seventh edition to 70.56% of the total possible score (35.28 out of 50) in the eighth edition. This reflects a strong performance on the new indicators included in the Index and a score increase on Indicator 31, but a score decrease on Indicator 7.

Patents, Related Rights, and Limitations

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called "Supplementary Protection Certificates" (SPCs). One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an "SPC

exemption." The overriding purpose of the proposal was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of patients around the world, but the industry is also an engine of economic

growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, "If the European Union is weakening IP standards to benefit its domestic industries, why shouldn't we do the same?" Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by

several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish government's perceptive criticism of the policy: "While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**" [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, Poland included.

Commercialization of IP Assets

31. Tax incentives for the creation of IP assets: As noted in last year's edition of the Index, the Polish government has stepped up existing R&D tax incentives to increase the attractiveness of carrying out R&D activities in Poland. In 2018 the rate of the R&D super deduction increased from 150% to 200% of qualifying costs. Furthermore, the granting of so-called "R&D Center status" entitles companies to a super deduction of 250% on qualifying expenses. In 2019 this was followed by the introduction of an "innovation box" regime. Since January 2019 eligible rights-holders and entities are able to access a new incentive and reduced rate of taxation on IP-derived income. This new innovation box reduces the tax on income derived from qualified intellectual property rights to a rate of 5%. Because of these changes, the score on this indicator has increased to 1.

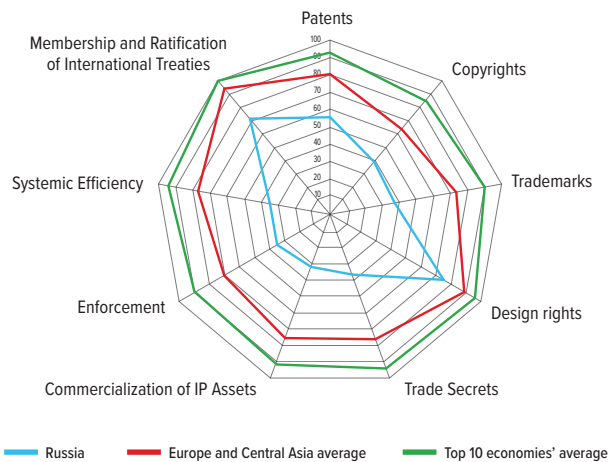
Enforcement

34. Civil and procedural remedies: In April 2019 the Ministry of Justice proposed to amend the Polish Civil

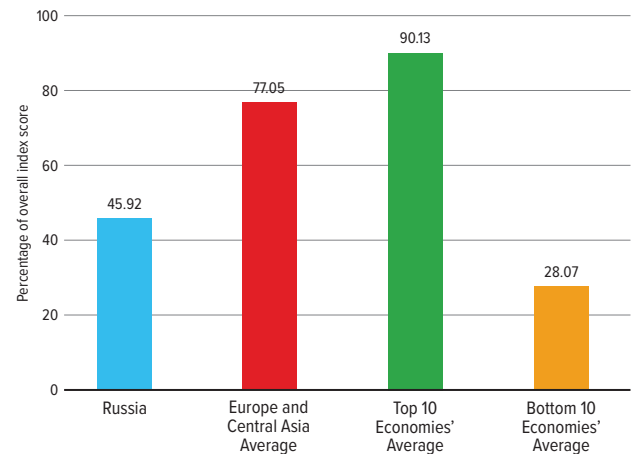
Procedure Code with the goal of professionalizing IP proceedings. The amendments would establish specialized regional IP courts. The proposed courts would hear cases of unfair competition and the protection of personal rights. They would also hear arguments regarding the invalidation or revocation of trademarks and design rights as part of counter-claim procedures (in cooperation with the Polish Patent Office to avoid any duplication of proceedings). Finally, the courts would also be competent to receive petitions to determine whether specific activities potentially breach a patent or industrial design right.

RUSSIA RANK 31/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New copyright laws passed in recent years—strengthening rights-holders' ability to request the disabling of access to infringing material online
- ✓ ROSPATENT has in place numerous PPHs and is a full participant in the GPPH
- ✓ Full participant in international IP treaties

KEY AREAS OF WEAKNESS

- ✗ Weakening of life sciences environment through new administrative barriers for patentability and term restoration and industrial localization policies on the pricing and procurement of medicines
- ✗ Use and threat of compulsory licenses and the overriding of IP rights as public health policy
- ✗ Administrative and regulatory barriers in place for licensing activities, including direct government intervention
- ✗ Increasingly punitive localization requirements targeting ICT and biopharmaceutical sector
- ✗ Data localization requirements for technology companies have been in place for a long time and have intensified over the past few years

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		5.00	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
2. Patentability requirements	0.25	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.00
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	0.25
9. Patent opposition	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
Category 2: Copyrights, Related Rights, and Limitations		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.00
10. Copyright (and related rights) term of protection	0.74	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.50
Category 5: Trade Secrets and the Protection of Confidential Information	1.10	Category 8: Systemic Efficiency	1.75
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.60	41. Educational campaigns and awareness raising	0.25
Category 6: Commercialization of IP Assets	1.92	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	0.00	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	5.00
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.25	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	2.45	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.32	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.38	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.00		
37. Effective border measures	0.50		
TOTAL: 22.96			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Russia's overall score has increased from 43.24% of the total possible score (19.46 out of 45) in the seventh edition to 45.92% (22.96 out of 50) in the eighth edition. This reflects a relatively strong performance on the new indicators added to the Index.

Patents, Related Rights, and Limitations

2. Patentability requirements; and 7. Patent term restoration for pharmaceutical products: In late 2018 the government issued amendments to Russian patent law and the practice notes of the Russian patent office ROSPATENT. This includes ROSPATENT Order 527, which amends the way patent applications are received and processed. In a negative development, part of these amendments insert new claim restrictions on second use patent claims for medicines. If implemented, these restrictions are likely to reduce the number of eligible applications and scope of available patent protection for second use innovations. Furthermore, some of the changes introduced in 2014

amendments to the Civil Code Part IV regarding patent term restoration came into effect in 2019. The Civil Code Part IV Article 1363 provides a mechanism for patent term restoration for biopharmaceuticals, agrochemicals, and pesticides, with a maximum term of restoration available of five years. This restoration period is a positive feature of Russia's IP environment as it relates to biopharmaceuticals. The 2014 amendments introduced several new layers and requirements for rights-holders when applying for this restoration. The most significant was the requirement to apply for (and ROSPATENT to issue) an additional new and distinct restoration-specific patent. Unlike the pre-2014 regulations, these new requirements are more restrictive in both design claim and scope of the restoration-specific patent. Local Russian legal analysis suggests that as a result of these new regulations coming into effect, the number of patents eligible for term restoration has effectively been reduced. Regarding the Index, Russia's score on both these indicators remains unchanged for now. However, the Index will continue to monitor these

developments in 2020 and the extent to which applicants are able to in practice obtain effective protections for their innovations.

5. Pharmaceutical-related patent enforcement and

resolution mechanism: In September 2019 the Ministry of Health published updated draft legislative proposals for changes to Law No. 61-3 on the Circulation of Medicines. The proposed changes include the introduction of a new administrative mechanism linking the approval of a follow-on medicine with the expiration of the exclusivity of a reference product. Specifically, the draft law includes a requirement that a follow-on applicant submit written documentation stating that the prospective registration does not violate any existing exclusivity. Furthermore, ROSPATENT will have a register of the exclusivity status of registered products. At the time of research, the draft law was still being debated and no final legislation had been passed or signed into law. The introduction of such a mechanism would be a positive step and improvement to Russia's national IP environment and result in a score increase on this indicator.

6. Legislative criteria and use of compulsory licensing of patented products and technologies; 26. Barriers to

market access: As has been detailed in previous editions of the Index, Russian industrial and economic policy over the last decade has increasingly been driven by an effort to localize industrial production and R&D. Key policy initiatives include the Strategy for Innovative Development of the Russian Federation 2020 (2020 Strategy), the State Coordination Program for the Development of Biotechnology (BIO 2020), the Strategy of Development of the Pharmaceutical and Medical Industries (Pharma 2020), the New Digital Society Strategy 2017–30 and the National Economic Security Strategy, 2017. A major part of these efforts has been localization and import substitution policies that actively discriminate against foreign entities and favor domestic Russian companies. While covering most parts of the economy, high tech sectors such as aerospace and nuclear energy, nanotechnology, medical technologies, ICT and alternative fuels have been targeted. The requirements and intensity of these policies has varied from sector to sector. Both the ICT and biopharmaceutical sectors have especially targeted. Data localization requirements for technology companies have been in

place for a long time and have intensified over the last few years. For biopharmaceuticals industrial localization policies have fused together with IP policy and broader health policy on the pricing and procurement of medicines. The result is a highly challenging environment that targets the industry with requirements for local manufacturing, procurement preferences for locally produced products, local clinical trials and R&D requirements, and, the use and threat of compulsory licenses and the overriding of IP rights as public health policy. Increasingly, Russian authorities, including Members of the Russian Parliament (the Duma), the Federal Government and judiciary, are viewing compulsory licensing as a legitimate policy for achieving industrial and public finance goals. The Russian Federal Antimonopoly Service (FAS) has been particularly active. In 2016 a compulsory license scheme as a method of reducing prices of certain high-cost specialty medicines was proposed by the agency. In 2017 the head of FAS, Igor Artyemyev, stated it was only a matter of time before the Government would formally begin to use this tool. Finally, in 2018 the first court-ordered biopharmaceutical compulsory license was issued. In July the Moscow Arbitration Court granted a compulsory license to local manufacturer Nativa for Celgene's Revlimid. The compulsory license was for Celgene to license one of its patent for the production of a product in which a dependent patent was to be used by Nativa. Without a license the use of this patent would constitute infringement of Celgene's patent. Critically, the lower cost of the product by Nativa was considered by the court as being economically advantageous. Nativa also has a number of other pending lawsuits involving similar 'pending patents' against originator products and so the scope for the issuing of further licenses has now been heightened significantly. Compulsory licensing as an actively used tool in Russian industrial and health policy is not only outside international norms but is self-defeating: over time it will hollow out the Russian IP environment and incentives for future innovation, biopharmaceutical and otherwise. Critically, the negative effect will be the same on Russian as on foreign innovators.

Systemic Efficiency

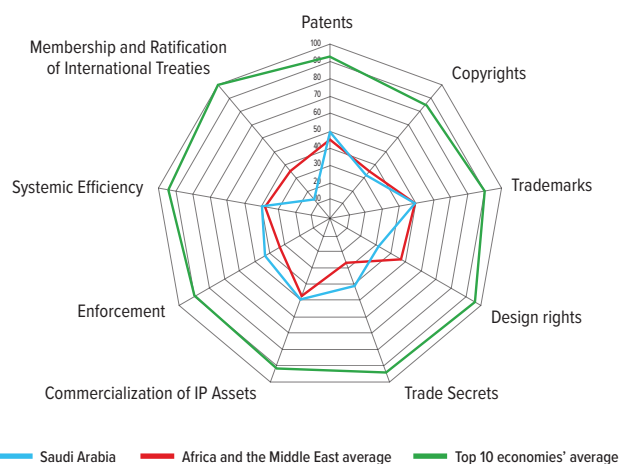
43. IP-intensive industries, national economic impact

analysis: Since the financial crisis in 2008-09, the Russian government has targeted innovation and the development of its science and technology capabilities as a main impetus

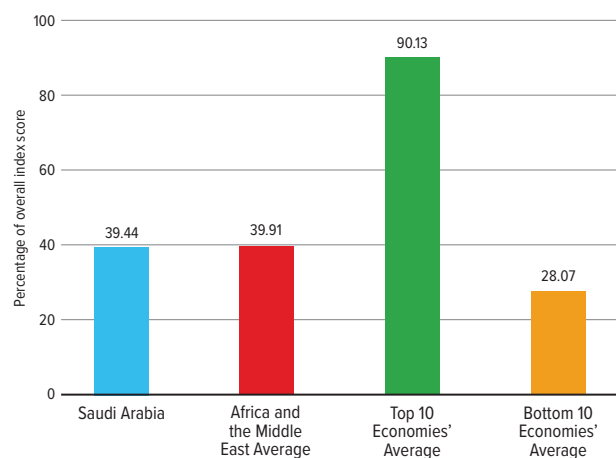
behind diversifying and modernizing the economy. The government's innovation strategy is focused mainly on enhancing and transforming its basic research capabilities into commercial activities, both in traditionally strong fields such as aerospace and nuclear energy as well as in new fields such as nanotechnology, medical technologies, and alternative fuels. Key policy initiatives include the Strategy for Innovative Development of the Russian Federation 2020 (2020 Strategy), the State Coordination Program for the Development of Biotechnology (BIO 2020), the Strategy of Development of the Pharmaceutical and Medical Industries (Pharma 2020), the New Digital Society Strategy 2017-30, and the National Economic Security Strategy 2017. As part of these efforts, various parts of the Russian government are studying the relationship between IP rights and economic activity. For example, since 2015 the Russian state venture capital fund RVC has collaborated with the Ministry of Economy to publish an annual assessment of Russia's innovation environment, *The National Report on Innovations in Russia*. These reports include assessments of innovation-related activities such as Russian patenting activity, investment in intangible assets, and other key performance indicators. Similarly, using the methodology developed by WIPO in 2007 both private and public sector entities (including the Russian Federal Service for Statistics [ROSSTAT]) supported the research and publication of a report on the economic impact of the creative industries in Russia. The report, *Study on the Economic Contribution of Copyright and Related Rights Industries in Russia*, found that the copyright industries in Russia made a substantial contribution to both national economic output and employment. Looking at the share of GDP, this was estimated at 6.06% of total national economic output and 7.43% of total employment in Russia. However, there is no government program in place akin to those in other high-income developed OECD economies that seeks to categorize and regularly measure the aggregate contributions of the IP-intensive industries to national economic output and employment.

SAUDI ARABIA RANK 39/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New Saudi IP authority has put in place ambitious reform agenda
- ✓ New PPH announced
- ✓ Increased consultation and awareness-raising activities in 2019
- ✓ Stronger copyright enforcement through Saudi IP Authority
- ✓ Strong and sustained focus by Saudi authorities and institutions to encourage IP commercialization and technology transfer
- ✓ *Ex officio* authority in place for customs officials

KEY AREAS OF WEAKNESS

- ✗ Pharmaceutical patent protection and linkage mechanism in effect suspended through SFDA actions in 2017
- ✗ Significant gaps in copyright framework—chiefly relating to protection online
- ✗ Increasing number of localization requirements
- ✗ Industry reports of a lack of practical availability of RDP—indirect reliance has been allowed when reviewing follow-on products
- ✗ Limited participation in international IP treaties
- ✗ Draft changes to data protection law do not meet global best practices

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations	4.50	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
1. Patent term of protection	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.00
2. Patentability requirements	0.50	14. Scope of limitations and exceptions to copyrights and related rights	0.50
3. Patentability of computer-implemented inventions	0.75	15. Digital rights management legislation	0.25
4. Plant variety protection, term of protection	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	Category 3: Trademarks, Related Rights, and Limitations	2.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	0.00	18. Protection of well-known marks	0.25
8. Membership of the Patent Prosecution Highway (PPH)	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
9. Patent opposition	0.75	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
Category 2: Copyrights, Related Rights, and Limitations	2.28	Category 4: Design Rights, Related Rights, and Limitations	0.65
10. Copyright (and related rights) term of protection	0.53	21. Industrial design term of protection	0.40
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.50
Category 5: Trade Secrets and the Protection of Confidential Information	1.25	Category 8: Systemic Efficiency	2.00
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	3.00	42. Targeted incentives for the creation and use of IP assets for SMEs	0.00
26. Barriers to market access	0.50	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	1.00
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	0.00
29. Direct government intervention in setting licensing terms	0.50	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	3.04	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.51	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.53	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.50		
TOTAL: 19.72			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Saudi Arabia's overall score has increased from 36.60% (16.47 out of 45) in the seventh edition to 39.44% (19.72 out of 50) in the eighth edition. This reflects a weak performance on the new indicators added to the Index but score increases on indicators 8, 11, 39, 40, and 41.

Patents, Related Rights, and Limitations

5. Pharmaceutical-related patent enforcement and resolution mechanism: Saudi Arabia introduced a patent linkage system in 2013. Under Circular Letter No. 7448, the Saudi FDA requires follow-on generic applicants to submit a letter from the Saudi Patent Office and/or the GCC Patent Office indicating that no registered patent exclusivity is or will be in place for the relevant reference product at the time of marketing approval. As discussed in previous editions of the Index, the Saudi FDA has effectively overridden Saudi Arabia's linkage regime by approving for market a follow-on product to Daclatasvir, a medicine under a registered patent held by BMS. This

highly negative development undermines confidence in Saudi Arabia's national IP environment and the ability for innovators to maintain basic patent protection. More broadly, it runs counter to the goals and general principles of Saudi Arabia's economic policy as outlined in both the *Vision 2030* and *National Transformation Program 2020*. At the time of research, this issue had still not been rectified or effectively addressed by Saudi authorities.

8. Membership of the Patent Prosecution Highway (PPH):

In a positive move the newly formed Saudi Authority for Intellectual Property signed not one, but two patent prosecution highway agreements in 2019. The first agreement, signed in April 2019, is with the Korean Intellectual Property Office. The second agreement was signed with the USPTO in late 2019 at the sidelines of the 59th WIPO General Assembly in Geneva. This is a significant step to support innovators and inventors in all affected economies. PPH initiatives and increased cooperation between IP offices is one of the most tangible

ways the administration and functioning of the international IP system can be improved and harmonized to help inventors and rights-holders. Until these announcements, Saudi Arabia did not have a functioning PPH with any major IP office. As a result, Saudi Arabia's score has increased by 0.5 on this indicator.

Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking): As has been noted in previous editions of the Index, the protection of copyright in Saudi Arabia is highly challenging. Relevant laws and regulations are not well developed and the illicit use of copyrighted material remains high. Saudi copyright law provides for basic exclusive rights and the protection of creative works. Article 9 of the Copyright Law Royal Decree No. M/41 includes a reference to the exclusive right to communication of a given work to the public "via any possible means." However, no specific law or regulation provides a notification-and-takedown mechanism for infringing online content, nor does any similar legal framework specifically address the issue of online infringement. The disabling of access to web content, including copyright-infringing content, occurs sporadically by the Ministry of Culture and Information. No official or public guidelines are in place. Physical and online piracy remains a significant challenge to rights-holders in Saudi Arabia; industry reports suggest that 90% of music and film content in Saudi Arabia is pirated. The estimated rate of software piracy by the Business Software Alliance for 2018 was 47%, a small change from the 2009 estimated rate of 51%. In 2019 the Saudi authorities took several positive enforcement and awareness-raising measures to try to address some of these issues (see also the discussion below in Indicator 41). Specifically, in 2019 the SAIP announced that over 160 cases of alleged copyright infringement had been referred to the relevant Saudi enforcement authorities and fines and penalties had been imposed. The SAIP also announced that it was open to being contacted directly by rights-holders in cases of alleged infringement. At the time of research, it was not clear how, or if, such a program and administrative mechanism of enforcement would become more formalized through the publication of official guidelines or process notes. Still, these important developments offer rights-

holders the prospect of a more effective and practical route of copyright enforcement in Saudi Arabia. As a result, the score on this indicator has increased by 0.25.

Systemic Efficiency

39. Coordination of IP rights enforcement: Over the last two years, there have been important changes to the IP enforcement environment in Saudi Arabia with the SAIP taking a central role in all matters relating to IP policy, including the coordination of enforcement. Historically, the enforcement of IP rights has been spread out over various layers of the Saudi branches of government. The Kingdom has a dual law enforcement structure: administrative proceedings and judicial proceedings. Traditionally judicial proceedings have taken place under the auspices of sharia law, which is still the basis for the operation of the Saudi legal system. Commercial, business, and IP law are still evolving, and much of the enforcement and dispute settlement takes place through administrative mechanisms. For initial disputes relating to patents, the governing administrative body has traditionally been "The Committee for Reviewing Patent Disputes" within the Saudi Patent Office based in King Abdul Aziz City for Science & Technology (KACST). For trademarks, the main avenue of administrative enforcement has been the Ministry of Economy and Industry and the Anti-commercial Fraud Department. For copyright claims and administrative enforcement, the relevant administrative body has been the Ministry of Culture and Information's Copyright Committee. For both trademarks and copyright, the Saudi Customs authority carries out border enforcement. For judicial enforcement in civil and criminal claims, the relevant authority is the "Board of Grievances". It is within this context that SAIP has emerged over the last two years taking a more prominent role in IP enforcement. To begin with, the Authority includes enforcement as one of its core business areas and, as noted above under Indicator 11, has taken several positive steps in coordinating and facilitating the enforcement of existing Saudi copyright statute in 2019. SAIP's Board of Directors also includes representatives from relevant enforcement agencies, including the Saudi General Customs Authority and Ministry of Communications and Information Technology. The Authority's remit to provide a coordinating function of IP enforcement has been noted by the U.S. Department of Commerce, which described the SAIP's authority as extending to and

including the coordination of “IP enforcement efforts with the other Ministries and Departments” in its latest commercial guide. As a result of the SAIP’s positive efforts, the score on this indicator has increased by 0.5.

40. Consultation with stakeholders during IP policy

formation: There is no formal or statutory requirement that Saudi authorities offer public consultations on proposed legislative and regulatory changes. As the U.S. Department of State has noted in the past, “Stakeholder consultation is inconsistent. ... Some Saudi organizations are scrupulous about consulting businesses affected by the regulatory process, while others tend to issue regulations with no consultation at all.” Public consultations do take place, but they vary from ministry to ministry and from topic to topic. For example, 2017 saw a public consultation on a draft VAT law. More broadly, the *Vision 2030* document emphasized the importance of engagement with the private sector, stating, “We will deepen communication channels between government agencies on one hand and citizens and the private sector on the other.” There have been more recent examples of consultation efforts, including by the National Centre for Privatization, which in 2018 published a draft of the Private Sector Participation Law. The law was open for comments and public consultation. With regard specifically to consultations on changes in IP policy, in a positive move the new Saudi IP authority in 2018-19 issued calls for public comments on several pieces of draft legislation and changes to IP policy. This includes calls for comments on Saudi accession to several international IP treaties as well as a call for comments on changes to the Copyright Law. The SAIP also announced the holding of a technical workshop with the publishing industry to collect more information and input on potential changes to the Copyright Law. This is a very positive development; regular consultations with all relevant stakeholders are a prerequisite for developing a world-class national IP environment in line with the highest international standards and practices. As a result, the score on this indicator has increased by 0.25.

41. Educational campaigns and awareness raising:

Historically, awareness-raising activities have primarily taken place through the King Abdulaziz City for Science and Technology, including since the early 2010s the Saudi

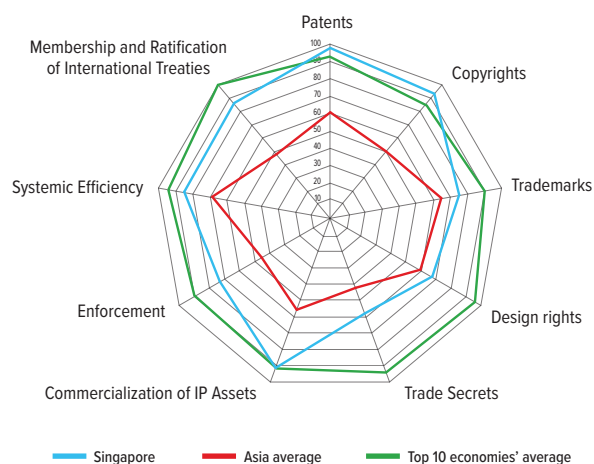
IP Forum, and have focused on patents and technology transfer. There have been examples of past awareness-raising efforts on other IP rights or themes through various Saudi government agencies—e.g., software piracy, a 2012 “General Administration Copyright Workshop” in 2013, and the “Annual Government Officials Conference on Copyright Protection in Arab Countries” held in Riyadh. But, overall, there has been a limited amount of activity in relation to other IP rights or key themes such as counterfeiting or the value of IP and knowledge-based assets to the Saudi economy. This changed in 2019. The SAIP launched several important, high-profile awareness-raising campaigns aimed at reaching the general public. These include a general cross-sectoral campaign titled “I Respect Intellectual Property Rights” and the copyright-related campaigns “Own Your Drawing” and “Acquire Your Idea,” as well as a special initiative targeting IP and sports, “Reach for Gold: IP and Sports,” which includes a partnership with the Saudi soccer league. The SAIP also announced the launch of the Intellectual Property Pioneers’ Program. This program targets university graduates and provides technical training and valuable expertise in IP-related fields. Public outreach campaigns such as these—if sustained over time—can have a real and positive impact on the national consciousness and respect and appreciation of the value IP rights bring to society. Because of these activities, the score on this indicator has increased by 0.25.

Membership and Ratification of International Treaties

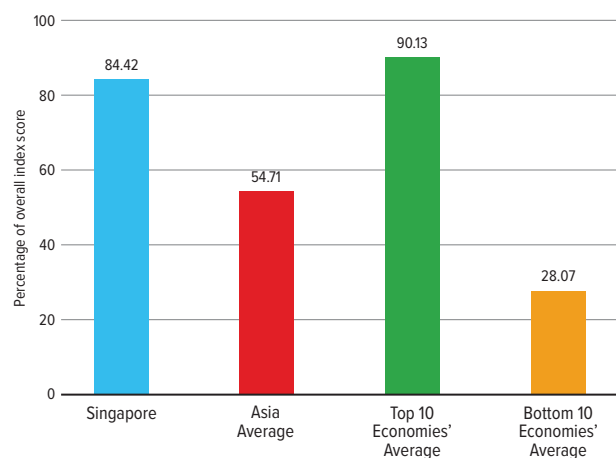
Saudi Arabia scores low in its participation in and ratification of international treaties. Of the nine treaties included in the Index, Saudi Arabia is a contracting party to only two: the Patent Law Treaty and the Patent Cooperation Treaty. Saudi Arabia has not concluded any post-TRIPS FTA with substantive IP provisions.

SINGAPORE RANK 11/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New R&D and IP tax incentives scheme implemented in 2019
- ✓ Advanced national IP framework in place
- ✓ Global leader in online copyright enforcement
- ✓ Active participant in efforts to accelerate patent prosecution—IPOS has several PPHs in place and is a member of the GPPH

KEY AREAS OF WEAKNESS

- ✗ Estimated software piracy decreased from 35% in 2009 to 27% today—still high for a developed high-income economy
- ✗ Lack of transparency and data on customs' seizures of IP-infringing goods

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		8.75	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	1.00
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	1.00
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.75
5. Pharmaceutical-related patent enforcement and resolution mechanism	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	1.00
9. Patent opposition	0.75	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
Category 2: Copyrights, Related Rights, and Limitations		6.49	
10. Copyright (and related rights) term of protection	0.74	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	1.00	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	0.60
		1.35	

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	1.75	Category 8: Systemic Efficiency	4.25
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	5.50	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	6.00
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	5.12	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.64	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.73	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	1.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.75		
37. Effective border measures	0.75		
TOTAL: 42.21			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Singapore's overall score has increased from 82.49% (37.12 out of 45) in the seventh edition to 84.42% (42.21 out of 50) in the eighth edition. This reflects a strong performance on the new indicators added to the Index and a score increase on Indicator 31.

Copyrights, Related Rights, and Limitations

Since 2016 the Ministry of Law and the Intellectual Property Office of Singapore (IPOS) have held public consultations on potential changes to the Copyright Act. In 2019 the two agencies released the *Singapore Copyright Review Report*, which summarizes the findings of the preceding three years' work and the result of these consultations. As the report rightly points out: "Technological and market changes in the digital age have significantly affected how creative works are created, distributed, and consumed" Since the Copyright Act was enacted in 1987. The review of the Copyright Act is part of a long-running series of policy initiatives and changes in legislation Singapore has

embarked on over the past half-decade. As noted in past editions of the Index, since 2014 Singapore has taken a real global leadership role regarding copyright enforcement. That year Singapore passed amendments to its Copyright Act, strengthening rights-holders' recourse mechanisms against online piracy. The amendments provide a more direct mechanism for rights-holders against "flagrantly" infringing sites. These amendments provide rights-holders with an avenue to apply directly to the High Court for an injunction "requiring the network service provider to take reasonable steps to disable access to the flagrantly infringing online location." The legislation contains a nonexhaustive list of conditions and factors the High Court may consider when determining whether flagrant infringement is taking place. These factors include whether the main purpose of the "online location" is to infringe copyright, whether circumvention instructions are included on the site, or "whether the owner or operator of the online location demonstrates a disregard for copyright generally." In response to an application by the Motion Picture

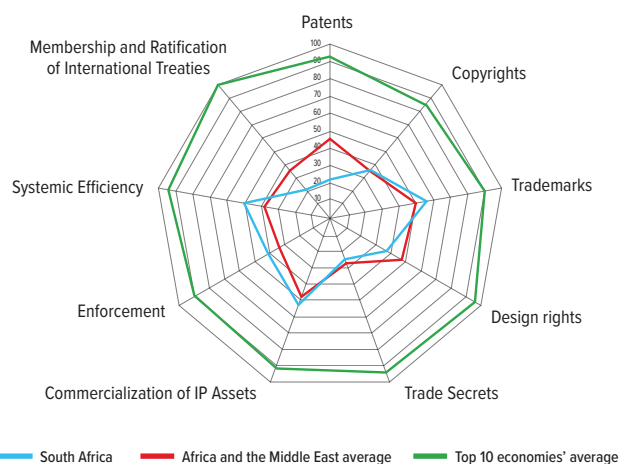
Association (MPA), the High Court issued its first order under these amendments ordering all of Singapore's major ISPs disable access to the piracy website Solarmovie.ph in 2016. In May 2018 the High Court ordered ISPs disable access to another 53 websites after a new request from the MPAA. In October 2018 this order was followed with the issuing of a so-called "dynamic order" from the High Court whereby rights-holders can notify ISPs directly if counter-measures have been taken by the targeted infringing sites. This greatly reduces the administration of the system and improves the overall effectiveness of the orders. Finally, in November 2018 the High Court issued another order to disable access to internet-based applications that provide infringing content to set-top boxes. There has been an explosion in the growth and use of such boxes in Asia and Singapore. A survey published in late 2018 commissioned by a local coalition of rights-holders, the Coalition Against Piracy, found that 15% of those surveyed used such a set-top box to access and stream illegal content. The *Copyright Review Report* makes several recommendations on changing both the substance as well as more technical and operational aspects of Singapore's copyright regime. Specifically, the report recognizes some of the remaining gaps in enforcement capabilities and set-top boxes in particular. For example, Conclusion 16 of the report recommends passing new legislation that would introduce civil and criminal liability on persons who "willfully make, import for sale, commercially distribute or sell" such set-top boxes. The lack of clarity in the current legal framework and need for such legislation is illustrated by the April 2019 verdict against a local retailer who was accused of selling the set-top boxes. In his guilty plea the owner stated he was unaware the boxes would be used primarily as a means of infringing copyright.

Commercialization of IP Assets and Market Access

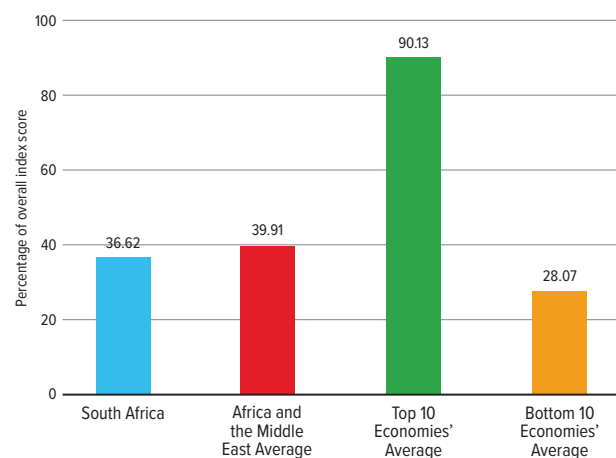
31. Tax incentives for the creation of IP assets: As mentioned in previous editions, since 2017 Singapore's government has planned to introduce an OECD BEPS-compliant IP-specific tax incentive provisionally titled the Intellectual Property Development Incentive (IDI). The IDI functions similarly to a patent or innovation box and provides a lower rate of income taxation (between 5% and 10%) on qualifying income derived from a qualifying IP asset. There had been some uncertainty about when and how the incentive would be made available to inventors in Singapore. Local reports suggest the IDI is now fully operational and available. As a result, Singapore's score has increased to 1 on this indicator.

SOUTH AFRICA RANK 42/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Basic IP framework in place
- ✓ Relatively low level of software piracy—32%—compared with other African economies

KEY AREAS OF WEAKNESS

- ✗ Finalized *IP Policy Phase I* does not fundamentally address South Africa's gaps in IP protection—focus is not on innovation and development of new IP in South Africa but on use of existing developed IP through compulsory licenses, parallel imports, and restricting patentability of pharmaceuticals
- ✗ New copyright and performers' amendments create uncertainty for rights-holders through existing "fair use" definitions as well as interference in private contracts
- ✗ Major gaps in laws and enforcement across all categories of the Index

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		2.00	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.00	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	2.25	
8. Membership of the Patent Prosecution Highway (PPH)	0.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.00	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
2.53		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.53	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	0.75	
		21. Industrial design term of protection	0.50

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.75	Category 8: Systemic Efficiency	2.50
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.75
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	3.17	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	0.50	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	1.50
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	0.50
29. Direct government intervention in setting licensing terms	0.25	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	2.86	48. Membership of the Convention on Cybercrime, 2001	0.50
32. Physical counterfeiting rates	0.43	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.68	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.50		
TOTAL: 18.31			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

South Africa's overall score has increased from 34.56% (15.55 out of 45) in the seventh edition to 36.62% (18.31 out of 50) in the eighth edition. This reflects an above average performance on the new indicators added to the Index.

Trade Secrets and the Protection of Confidential Information

CORRECTION OF ERROR, 24. Protection of trade secrets (criminal sanctions): South African law does not define or provide protection for trade secrets through a trade secrets-specific statutory law. Like many other common law jurisdictions, protection is primarily afforded through case law and other statutes. Since 2017 the South African Parliament has been debating a cybercrimes bill. This draft law provides a potential avenue for criminal prosecution of the misappropriation and illicit accessing of trade secrets and confidential information. Chapter 2 of the bill provides quite broad definitions of illegal access to and misappropriation of data, including the breaching of

existing protection measures to keep data secure. Penalties are up to five years' imprisonment and fines. While this draft law would provide more robust criminal sanctions, the existing Electronic Communications and Transactions Act, 2002, provides for a limited form of criminal liability in the case of the illicit access and misappropriation of any type of data. Sections 86(1) and (2) state clearly that the interception of and/or interference with any type of data is an offence: "(1) Subject to the Interception and Monitoring Prohibition Act, 1992 (Act No. 127 of 1992), a person who intentionally accesses or intercepts any data without authority or permission to do so, is guilty of an offence. (2) A person who intentionally and without authority to do so, interferes with data in a way which causes such data to be modified, destroyed or otherwise rendered ineffective, is guilty of an offence." Section 89(1) provides criminal penalties, including an unspecified fine or maximum prison term of 12 months: "(1) A person convicted of an offence referred to in sections 37(3), 40(2), 58(2), 80(5), 82(2) or 86(1), (2) or (3) is liable to a fine or imprisonment for a

period not exceeding 12 months.” Unfortunately, this was not recognized by the Index in last year’s edition when this indicator was first introduced and South Africa received a score of 0. This error has now been rectified and South Africa’s score on this indicator has been increased from 0 to 0.25. We apologize.

Systemic Efficiency

43. IP-intensive industries, national economic impact

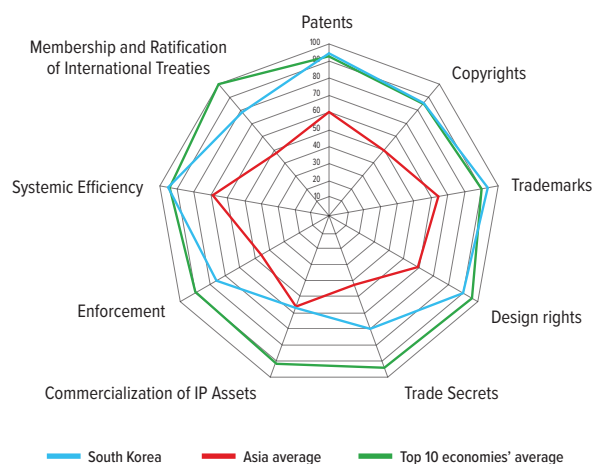
analysis: South Africa has several research and policy programs in place to encourage and build high-tech sectors and innovation-based industries. Biotechnology and the life sciences have been targeted through, for example, the Ministry of Science and Technology’s 2014 flagship policy document for the biotechnology sectors, *The Bio-Economy Strategy*. The Department of Trade and Industry (dti) has a dedicated platform for measuring and encouraging the growth of high-tech industrial sectors. There are also several government-commissioned studies that examine the relationship between IP rights and economic activity. For example, the Future Industrial Production Technologies Chief Directorate of the dti has commissioned a series of reports on the future of technology, innovation, and industrial development, including *Framing the Concepts That Underpin Discontinuous Technological Change*, *Technological Capability*, and *Absorptive Capacity* and *Mapping the Meso Space That Enables Technological Change*, *Productivity Improvement*, and *Innovation in the Manufacturing Sector*. Furthermore, the dti in 2010 commissioned WIPO to assess the economic contribution of the copyright-based industries in South Africa. Of note is that then Minister of Trade and Industry Rob Davies in the foreword of this report emphasized the need to better measure and understand the economic contribution IP industries make to South African national output. The minister stated, “The report is an eye opener. It will assist the country in treating IP as a sector and this will be judged by its contribution to the economy as laid out in the report. This is an indictment to the state to put systems in place that will assist in improving the contribution of copyright/IP to the Gross Domestic Product.” At the time of research, the national statistics office, Statistics South Africa, did not have a publicly available dedicated program or dataset measuring the economic output of South Africa’s IP-intensive industries.

Membership and Ratification of International Treaties

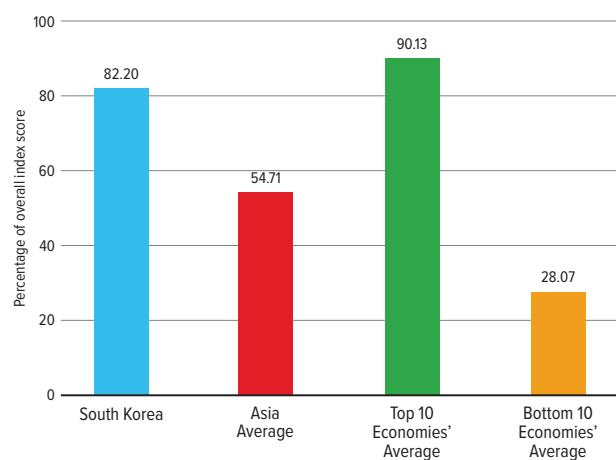
South Africa’s overall score on this category has increased, rising from 0.5 to 1.5 as a result of the increased number of international treaties included in the Index. As a proportion of the available score for this category, South Africa’s performance has increased from 12.5% (a score of 0.5 out of 4 indicators) to 21.43% (a score of 1.5 out of 7 indicators). South Africa is a contracting party to the Patent Cooperation Treaty and has signed, but not ratified or acceded to, the WIPO Internet Treaties or the Convention on Cybercrime. South Africa is not a contracting party to the Singapore Treaty on the Law on Trademarks; the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; the Patent Law Treaty; the International Convention for the Protection of New Varieties of Plants, act of 1991 (South Africa is a contracting party to the 1978 act); or the Hague Agreement Concerning the International Registration of Industrial Designs. South Africa has not concluded any post-TRIPS FTAs with substantial IP provisions. South Africa is a full contracting party to the African Continental Free Trade Area, signed by 44 African countries in March 2018, having acceded in February 2019. The agreement could fundamentally revolutionize economic activity in Africa by reducing barriers to trade and economic interaction across the continent. Parts of the Free Trade Area (Phase I) came into force in June 2019 and is operational in a handful of economies. Reports suggest that Phase II discussions (which include IP-related negotiations) are set to begin soon and potentially conclude in 2020.

SOUTH KOREA RANK 13/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New amendments to the Unfair Competition Prevention and Trade Secret Protection Act strengthen criminal sanctions for trade secret theft and the basis for which damages can be awarded for patent and trade secret infringement
- ✓ Patenting standards generally in line with international best practices
- ✓ Generally strong online/digital copyright protection (with important exceptions, including software)
- ✓ Relatively robust legal framework for trademark and design protection
- ✓ Membership in Global PPH and IP5 and new post-grant patent opposition mechanism streamline patent office
- ✓ KIPO provides SMEs with a variety of educational and technical assistance programs as well as the right to reduced filing fees

KEY AREAS OF WEAKNESS

- ✗ Remaining hurdles in application of civil remedies (with efforts to improve under way)
- ✗ Not a contracting party to the Patent Law Treaty and the Convention on Cybercrime
- ✗ Some barriers to market access that discriminate against foreign IP owners
- ✗ Onerous licensing registration requirements

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		8.50	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	1.00
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.75
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	3.75	
8. Membership of the Patent Prosecution Highway (PPH)	1.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	1.00	18. Protection of well-known marks	1.00
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
5.99		20. Availability of frameworks that promote action against online sale of counterfeit goods	1.00
10. Copyright (and related rights) term of protection	0.74	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	1.00	1.80	
		21. Industrial design term of protection	0.80

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.25
Category 5: Trade Secrets and the Protection of Confidential Information	2.10	Category 8: Systemic Efficiency	4.75
23. Protection of trade secrets (civil remedies)	0.75	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.75	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.60	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	3.42	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	0.50	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	5.50
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.50	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	5.29	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.61	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.68	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.75		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	1.00		
36. Criminal standards including minimum imprisonment and minimum fines	1.00		
37. Effective border measures	1.00		
TOTAL: 41.10			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

South Korea's overall score has increased from 80.13% (36.06 out of 45) in the seventh edition to 82.20% (41.10 out of 50) in the eighth edition. This reflects a relatively strong performance on the new indicators added to the Index and score increases on Indicators 24 and 35.

Trade Secrets and the Protection of Confidential Information

24. Protection of trade secrets (criminal sanctions): The Unfair Competition Prevention and Trade Secret Protection Act contains criminal sanctions and penalties relating to the theft and misappropriation of trade secrets. The 2019 amendments to Article 18 of the act strengthened penalties for the theft and misappropriation of trade secrets, with prison sentences of up to 15 years and fines of up to KRW1.5 billion (about USD1.3 million). Because of these amendments, the score on this indicator has increased by 0.25.

Enforcement

35. Preestablished damages and/or mechanisms for determining the amount of damages: South Korean laws provide a relatively strong framework for enforcing IP rights, in terms of both civil remedies and criminal penalties for infringement. These include statutory damages and various mechanisms for determining adequate damages, although actual sums awarded in some cases can be relatively small (for instance, in *Apple Inc. v. Samsung Electronics Co., Ltd.*, 2012). Amendments to the Patent Act and Unfair Competition Prevention and Trade Secret Protection Act (passed at the end of 2018) came into force during 2019 and have strengthened the basis for which damages can be awarded for patent and trade secret infringement. The new amendments provide for the possibility of awarding punitive damages. Because of these amendments, the score on this indicator has increased by 0.25.

Systemic Efficiency

43. IP-intensive industries, national economic impact

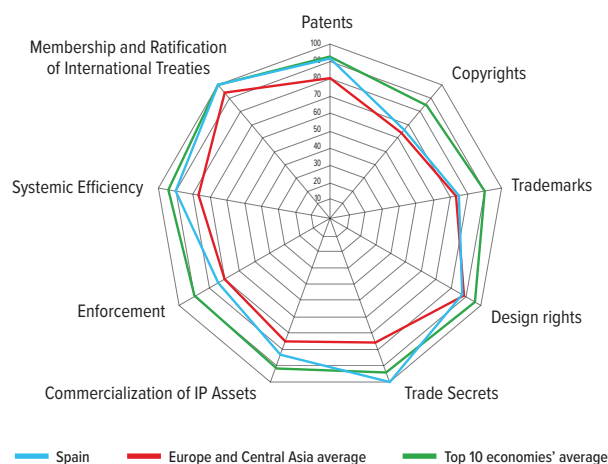
analysis: The Korea Institute of Intellectual Property (a subsidiary of the Korea Intellectual Property Office, KIPO) in December 2018 released a comprehensive assessment of the contribution of Korean IP-intensive industries to national GDP, employment and R&D investment, the *Economic Contribution Analysis of IP-Intensive Industry*. Based on 2015 statistics collected by the national statistics agency, the report found that IP-intensive industries are a major contributor to national output, employment, and R&D spending. In 2015, IP-intensive industries were responsible for close to 80% of R&D investment in Korea, constituted 43.1% of GDP, and employed over 6 million people (29.1% of the entire workforce). All major indicators studied saw substantive increases compared with 2010 national statistics. This was the first study of its kind released by the KIIP. This is a positive development and the KIIP should be congratulated for putting the resources and time into understanding and measuring the economic impact IP rights have on the Korean economy and economic output.

Membership and Ratification of International Treaties

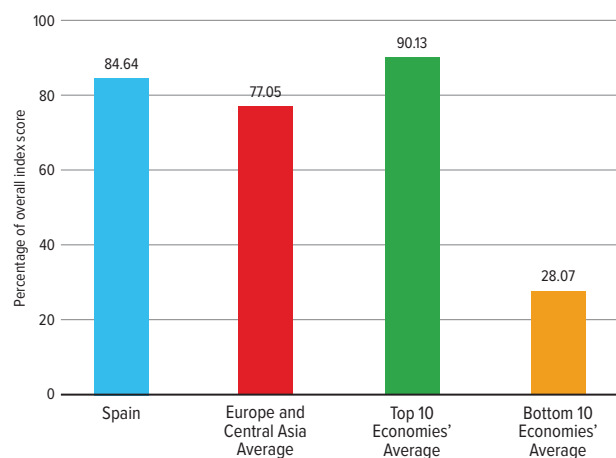
South Korea's overall score on this category has risen from 3 to 5.5 as a result of the increased number of international treaties included in the Index. South Korea is a contracting party to all the treaties included in the Index except the Patent Law Treaty and the Convention on Cybercrime. South Korea has concluded a post-TRIPS FTA with substantial IP provisions with the United States.

SPAIN RANK 10/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New trade secret law entered into force in March 2019
- ✓ Stronger copyright enforcement measures in place through Royal Decree Law 2/2018
- ✓ As an EU Member State, Spain has in place an advanced IP system
- ✓ Sector-specific rights in place and enforced
- ✓ Efforts to strengthen and modernize patent and copyright frameworks, including for online copyright enforcement
- ✓ Civil and criminal reforms enhance remedies available for IP infringement
- ✓ Active public awareness campaigns and engagement efforts

KEY AREAS OF WEAKNESS

- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Spain's and EU's research and IP-based biopharma industry
- ✗ Counterfeiting and piracy remain high compared with other EU economies—software piracy estimated at 42%

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		8.25	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.75
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.75
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	3.00	
8. Membership of the Patent Prosecution Highway (PPH)	1.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	1.00	18. Protection of well-known marks	0.75
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
4.63		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.63	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.75	1.75	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	3.00	Category 8: Systemic Efficiency	4.50
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	1.00	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	5.00	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	0.75	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	5.19	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.61	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.58	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.75		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.50		
36. Criminal standards including minimum imprisonment and minimum fines	0.75		
37. Effective border measures	1.00		
TOTAL: 42.32			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Spain's overall score has increased from 82.38% (37.07 out of 45) in the seventh edition to 84.64% (42.32 out of 50) in the eighth edition. This was driven by a strong performance on the new indicators added to the Index and score increases on Indicators 11 and 23, and despite a score decrease on Indicator 7.

Patents, Related Rights, and Limitations

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called "Supplementary Protection Certificates" (SPCs). One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an "SPC

exemption." The overriding purpose of the proposal was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of patients around the world, but the industry is also an engine of economic

growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders; import bans and increased taxation on foreign products; and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, "If the European Union is weakening IP standards to benefit its domestic industries, why shouldn't we do the same?" Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry and lead to a global race toward the bottom in weakening global

IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish government's perceptive criticism of the policy: "While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**" [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, Spain included.

Copyrights, Related Rights and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking); and 12. Expedient injunctive-style relief and disabling of infringing content online: In March 2019 amendments to the revised Intellectual Property Law came into force, incorporating measures outlined in Royal Decree Law 2/2018. These amendments strengthen available tools in the fight against online crime, including copyright infringement. Among the major updates to the text is the capacity granted to the Second Section of the IP Commission of the Ministry of Culture (known as the "Sinde Commission") to close a webpage for up to one year without a judicial order in case of a reiteration of noncompliance (Article 195.6). Reiteration of noncompliance is also punishable with an administrative sanction of between EUR150,000 and EUR600,000 (the first such fine was issued by the commission in 2018). From

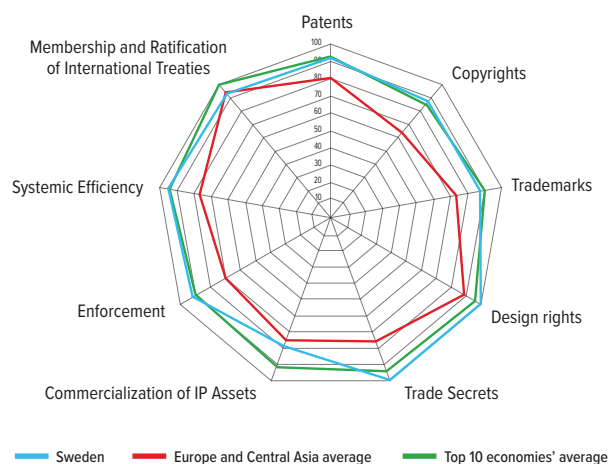
its creation in 2012 until 2018 (included), the commission's work has resulted in 114 websites being closed and 466 websites removing content from their pages. Of these, over 90% did so without a court order. In 2018 the commission considerably increased its capacities: It processed four times more complaints than the previous year and reduced the investigative time by 70%. The commission also worked directly with the private sector and used new antipiracy software provided by the Spanish soccer association *La Liga*. On average, though, it still takes 120 days for the commission to process applications by rights-holders. The effectiveness of the commission's work comes from the overall substantive reduction in pirate page audiences in Spain. In 2018 there were 13 pirate websites among the 250 most visited in the country, down from 19 in 2017. At the time of research, no comprehensive statistics were available for 2019, but court injunctions continued to deal blows to some of the main torrent websites, including disabling orders for about 60 Pirate Bay proxies and clones. Because of this record of stronger action against online infringement, the score on Indicator 11 has increased by 0.25.

Trade Secrets and the Protection of Confidential Information

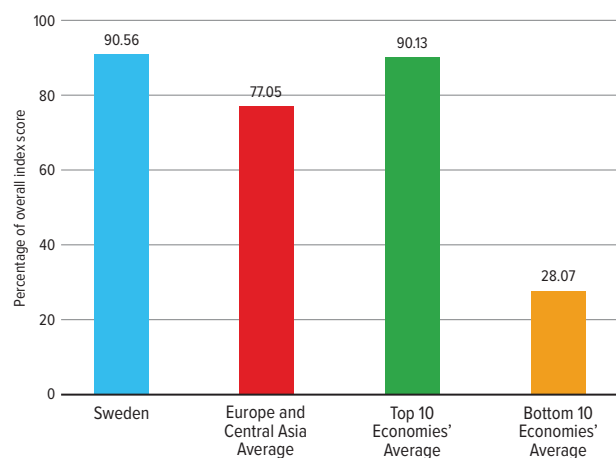
23. Protection of trade secrets (civil provisions): In March 2019 the new Business Secrets Act entered into force, implementing EU Directive 2016/943. As reported in the 2018 edition of the Index, until now no specific law regulated this matter; protection existed through different provisions of the Criminal Code, the Unfair Competition Law, and individual contracts. The new act clearly sets out a broad definition of trade secrets and liability for infringement. This new legislation improves the Spanish trade secret environment, which is now uniform and in line with EU standards. As a result, the score for this indicator has increased by 0.25.

SWEDEN RANK 5/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Strong and sophisticated national IP environment
- ✓ Online copyright enforcement improving over the past few years with stronger police enforcement and precedent-setting court decisions on ISP responsibility
- ✓ IP appeal court provided pivotal ruling in long-running *Bredbandsbolaget* case—verdict provides rights-holders recourse mechanisms for copyright infringement online

KEY AREAS OF WEAKNESS

- ✗ New case law in 2018-19 creates uncertainty about the circumstances under which Swedish ISPs and internet mediators will be ordered to disable access to infringing content
- ✗ No R&D- or IP-specific tax incentives in place
- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to Sweden's and EU's research and IP-based biopharma industry

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.75
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	1.00
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 4: Design Rights, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	1.00
9. Patent opposition	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
Category 2: Copyrights, Related Rights, and Limitations		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.60	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.75	21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	3.00	Category 8: Systemic Efficiency	4.75
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	1.00	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	4.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	6.50
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	6.43	48. Membership of the Convention on Cybercrime, 2001	0.50
32. Physical counterfeiting rates	0.87	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.81	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.75		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	1.00		
36. Criminal standards including minimum imprisonment and minimum fines	1.00		
37. Effective border measures	1.00		
TOTAL: 45.28			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Sweden's overall score has decreased from 91.18% (41.03 out of 45) in the seventh edition to 90.56% (45.28 out of 50) in the eighth edition. This was driven by a score reduction on Indicator 7.

Patents, Related Rights, and Limitations

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals, so-called "Supplementary Protection Certificates" (SPCs). One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an "SPC exemption." The overriding purpose of the proposal was to provide European manufacturers of generic drugs

and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in

2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission’s proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that per definition would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders, import bans and increased taxation on foreign products, and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, “If the European Union is weakening IP standards to benefit its domestic industries, why shouldn’t we do the same?” Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe’s research-based industry and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark,

Sweden, and the UK all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe’s research-based industries. Of note is the Danish government’s perceptive criticism of the policy: “While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**” [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. Because of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, Spain included.

Copyrights, Related Rights, and Limitations

12. Expeditious injunctive-style relief and disabling of infringing content online: As noted in previous editions of the Index, the 2016 judgment in the case against Swedish ISP giant *Bredbandbolaget* significantly weakened Swedish antipiracy efforts. The decision established a precedent that ISPs in Sweden have no obligation to block access to pirate websites unless they provide “direct assistance” to the primary infringers with Stockholm’s District Court refusing an injunction against *Bredbandbolaget* to disable access to two torrent sites (including The Pirate Bay). The court’s decision was based on an evaluation of Sweden’s implementation of the EU’s InfoSoc Directive (Article 8.3) and on the complicity concept within the Penal Code (Article 53b). Notably, the court provided a narrow scope of protection for Swedish rights-holders under the terms of Article 8(3) of the InfoSoc Directive, according to which EU Member States shall make available injunctions against intermediaries used by third parties to infringe IP rights. The court concluded that although Swedish law is phrased in a more restrictive way than the EU Directive, it still complies with it given that the possibility of injunction

is not illusory. In February 2017 the newly established Swedish Patent and Market Court of Appeal (*Patent- och marknadsöverdomstolen*) overturned this decision. The court ruled that *Bredbandsbolaget* should not only disable access to the torrent websites in question but also pay damages of SEK500,000 (about USD60,000). The ruling could not be appealed and has set an important precedent and point of reference in the enforcement against online piracy in Sweden. Because of this decision, Sweden's score on related copyright indicators in the Index increased. There were several important developments in 2018-19, not all of them positive. In October 2018 the court of first instance, the Swedish Patent and Market Court (*Patent- och marknadsdomstolen*), ordered one of the largest ISPs in Sweden, Telia, to disable access to several websites enabling access to copyright-infringing content. A coalition of rights-holders brought suit earlier in 2018 in part based on the precedent set by the *Bredbandsbolaget* case and developments in European jurisprudence. However, in February 2019 the Swedish Patent and Market Court of Appeal overturned this order (Case PMÖ 9945-18). Although the court stated it was clear that copyright infringement had taken place as claimed by the plaintiffs, the court argued it was a disproportionate response—in this specific case—to order the disabling of access to these websites because, in part, several were no longer operational or accessible. Given these circumstances, at that specific moment, the court stated that an order disabling access would not be a proportionate response. Given the long and difficult history rights-holders have faced in enforcing their copyright in Sweden—as has been noted in past editions, Swedish rates of online piracy have historically been noticeably higher than those of other high-income developed economies—this decision raised the specter of undoing much of the positive momentum gained through the 2017 *Bredbandsbolaget* case. Yet in October 2019 the same Court of Appeal appeared to veer in a different direction. In another appeals case involving a set of ISPs and rights-holders (*ComHem, Tele 2, Telia v. Elsevier BV, Elsevier Ltd.*, Case PMÖ 7648-19) on the infringement and illegal access to scientific publications through the LibGen and Sci-Hub websites, the court upheld the lower court's judgment that the ISPs should disable access to these websites. Specifically, the court held that the disabling of access was, again, at this point and under these specific factual circumstances, a proportionate

response. The combined effect of the Court of Appeal's judgment's in these two cases in 2019 creates uncertainty about the circumstances under which Swedish ISPs and internet mediators will be ordered to disable access to infringing content. In which cases will the court rule that the disabling of access constitutes a "proportionate" response? This raises the specter that further litigation will be necessary and more case law needed to provide a higher degree of clarity. Sweden's score on this indicator remains unchanged this year, but the Index will continue to monitor this situation in 2020.

Systemic Efficiency

43. IP-intensive industries, national economic impact

analysis: As a Member State of the European Union and contracting party to the European Patent Convention, the Swedish government also takes part in the multitude of research efforts conducted by European institutions. A swathe of European institutions study the economic impact of IP-intensive industries in the EU and Europe. Major institutions that publish studies and research on various aspects of the economics of IP-intensive industries include the EPO, EUIPO, EUROSTAT, and European Commission. The latest such research is the 2019 *IPR-Intensive Industries and Economic Performance in the European Union* published by the EUIPO and EPO. This study found that IP-intensive industries contributed an estimated 42.9% of Swedish GDP, on average, in the period 2014-16. Similarly, regarding employment, an estimated 32.1% of the Swedish labor force worked in IP-intensive industries. Both the Swedish government and relevant institutions, including the Swedish Patent and Registration Office (*Patent- och registreringsverket*) and innovation agency Vinnova, are placing a stronger emphasis on understanding the link between IP rights and economic activity and the economic contribution these industries make to the Swedish economy. For example, the Swedish government in 2016 in its strategic overview for higher education and research (*Regeringens proposition 2016/17:50, Kunskap i samverkan—för samhällets utmaningar och stärkt konkurrenskraft*) stated clearly that there should be more government-commissioned research into the relationship between economic activity and IP assets: "The Government therefore sees a need for a broad knowledge increase in the area of intellectual property law in business, universities and colleges and

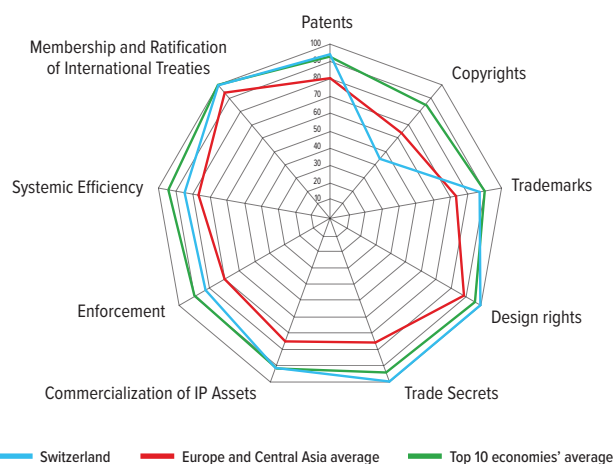
other public activities.” Similarly, the Ministry of Enterprise and Innovation (*Näringsdepartementet*) in a 2015 policy report recommended that more resources and a dedicated research program be put in place to strengthen the study of the relationship between IP assets, innovation, and economic growth in Sweden.

Membership and Ratification of International Treaties

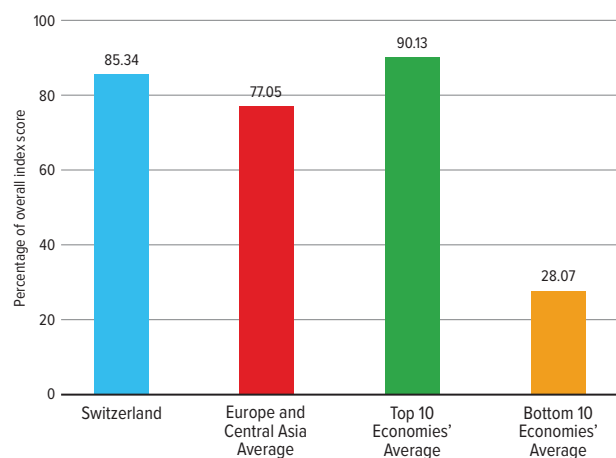
Sweden is a signatory and contracting party to all but one of the treaties included in the IP Index. Sweden signed up to the Convention on Cybercrime in 2001 but has not acceded or formally ratified it.

SWITZERLAND RANK 9/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New R&D and IP tax incentives in place
- ✓ Strong and sophisticated national IP environment
- ✓ Strong patent rights and enforcement environment
- ✓ Founding member of EPO and full participant in PPH initiatives

KEY AREAS OF WEAKNESS

- ✗ Proposed changes to copyright law only partially address issue of online infringement—do not include option to disable access to infringing content online or content hosted by foreign sites
- ✗ Overly broad interpretation of limitations and exceptions for copyright
- ✗ Crucial gaps in enforcement and prosecution of online copyright infringement

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.50
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 4: Design Rights, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	1.00
9. Patent opposition	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
Category 2: Copyrights, Related Rights, and Limitations		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.63	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	3.00	Category 8: Systemic Efficiency	4.25
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	1.00	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	5.50	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	5.79	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.75	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.79	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.75		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.75		
36. Criminal standards including minimum imprisonment and minimum fines	0.75		
37. Effective border measures	1.00		
TOTAL: 42.67			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Switzerland's overall score has increased from 82.78% of the total possible score (37.25 out of 45) in the seventh edition to 85.34% (42.67 out of 50) in the eighth edition. This was driven by a strong performance on the new indicators added to the Index and a score increase on Indicator 31.

Commercialization of IP Assets and Market Access

31. Tax incentives for the creation of IP assets: Until 2019 Swiss tax law provided only limited tax and R&D incentives for IP assets. There was no general, federal R&D tax credit available and only a regional patent box in place in the Canton of Nidwalden. In May 2019 this changed with the approval of a comprehensive corporate tax reform package by the Swiss general public in a referendum. The tax reform package, Federal Act on Tax Reform and AVS Financing, includes the introduction of both an R&D super deduction and a patent box regime based on OECD BEPS guidelines. Of note is that both the super deduction and patent box

apply at the cantonal level. The R&D tax deduction is up to 150% on qualifying expenditure. The patent box provides up to 90% relief on any qualifying income generated from IP-based assets. The new law went into effect on January 1, 2020. The adoption of these tax incentives is a positive step for Switzerland and has resulted in a score increase on this indicator.

Systemic Efficiency

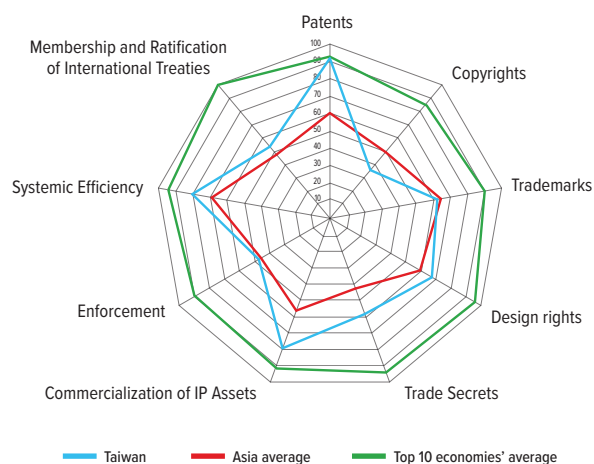
43. IP-intensive industries, national economic impact

analysis: A swathe of European and EU institutions study the economic impact of IP-intensive industries in Europe. Major institutions that publish studies and research on various aspects of the economics of IP-intensive industries include the EPO, EUIPO, EUROSTAT, and European Commission. Although not an EU Member State, Switzerland is a founding member of the EPO and data on Swiss IP-intensive industries is included in many of these studies and resources. For example, data on Switzerland and other EFTA economies is included in the

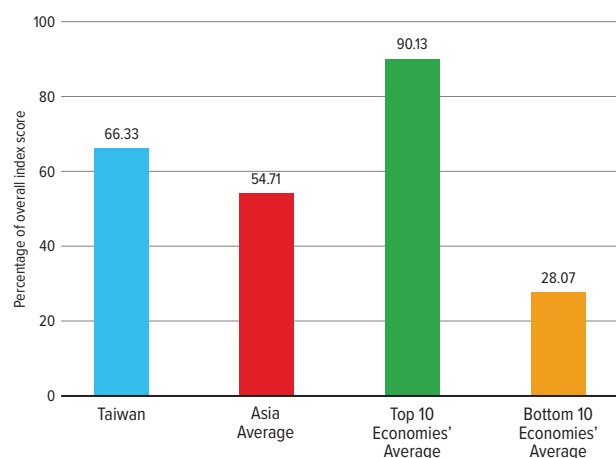
2019 IPR-Intensive Industries and Economic Performance in the European Union published by the EUIPO and EPO. This study found that IP-intensive industries contributed an estimated 41.3% of Swiss GDP, on average, in the period 2014-16. Similarly, regarding employment, an estimated 30.7% of the Swiss labor force worked in IP-intensive industries. Swiss federal institutions such as the State Secretariat for Economic Affairs and the State Secretariat for Education, Research and Innovation regularly commission and publish highly technical and in-depth studies of innovation-related activities in the Swiss economy. For example, there are several recurring and detailed surveys of innovation-related activities—including patenting activity and types of innovation taking place (product versus process innovation)—both in aggregate and at the individual firm level. However, these are not aimed specifically at the IP-intensive industries or seek to directly measure the economic contribution of these industries. For example, the Federal Statistical Office in its regular survey of value added in the Swiss economy (*Die Produktions- und Wertschöpfungsstatistik*) does not aggregate separate IP-intensive industries into an individual category.

TAIWAN RANK 21/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New pharmaceutical linkage regime operational—strengthens protection and enforcement of biopharmaceutical IP rights
- ✓ Term of protection for industrial design rights extended from 12 to 15 years
- ✓ Patent framework in line with international standards, with recent improvements to the grace period
- ✓ Implemented many of the provisions of several international IP treaties, despite political hurdles to becoming a contracting party

KEY AREAS OF WEAKNESS

- ✗ Important gaps in digital copyright regime
- ✗ Relatively high rates of online piracy and physical counterfeiting
- ✗ Some uncertainty in technology licensing environment

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations	8.25	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
1. Patent term of protection	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.25
2. Patentability requirements	1.00	14. Scope of limitations and exceptions to copyrights and related rights	0.50
3. Patentability of computer-implemented inventions	1.00	15. Digital rights management legislation	0.50
4. Plant variety protection, term of protection	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	1.00	Category 3: Trademarks, Related Rights, and Limitations	2.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	1.00	18. Protection of well-known marks	0.50
8. Membership of the Patent Prosecution Highway (PPH)	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
9. Patent opposition	0.75	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
Category 2: Copyrights, Related Rights, and Limitations	2.53	Category 4: Design Rights, Related Rights, and Limitations	1.35
10. Copyright (and related rights) term of protection	0.53	21. Industrial design term of protection	0.60
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.75
Category 5: Trade Secrets and the Protection of Confidential Information	1.75	Category 8: Systemic Efficiency	4.00
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.75	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	4.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	0.75
27. Barriers to technology transfer	0.75	Category 9: Membership and Ratification of International Treaties	3.75
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	0.75
29. Direct government intervention in setting licensing terms	0.50	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	3.29	48. Membership of the Convention on Cybercrime, 2001	0.50
32. Physical counterfeiting rates	0.38	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.50
33. Software piracy rates	0.66	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.50		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.50		
TOTAL: 32.17			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Taiwan's overall score has increased from 62.33% (28.05 out of 45) in the seventh edition to 66.33% (32.17 out of 50) in the eighth edition. This was driven by a strong performance on the new indicators added to the Index and a score increase on Indicators 5 and 21.

Patents, Related Rights, and Limitations

5. Pharmaceutical-related patent enforcement and

resolution mechanism: Announced in December 2017, a patent linkage system came into effect in August 2019, covering both chemical and biologic products. As described in previous editions of the Index, rights-holders will now have to record their patent information in a list run by Taiwan's Food and Drug Authority. Upon registration, follow-on manufacturers will have to declare that their product does not infringe any listed patent and notify the patent holder within 20 days. The innovator will have 45 days to file a lawsuit against the generic manufacturer and notify the drug regulator, who will stay generic approval

for 12 months. Overall, this system provides a higher level of certainty about patent rights for both innovators and generic manufacturers. As a result, the score on this indicator has increased to 1.

Design Rights, Related Rights, and Limitations

21. Industrial design term of protection: Amendments to the Patent Act promulgated by presidential order on May 1, 2019, extend the term of protection for industrial design from 12 to 15 years (Article 135 of the Patent Act), with the goal to better align the Taiwanese environment with the Hague Agreement. As a result, the score on this indicator has increased to 0.6.

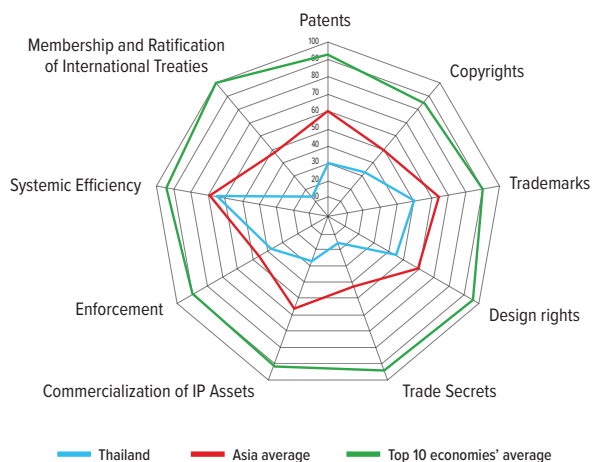
Membership and Ratification of International Treaties

Taiwan is a full member of the WTO but is not eligible for membership in the UN or affiliated institutions, including WIPO. Taiwan is therefore unable to join and become a contracting party to any WIPO-administered IP treaty.

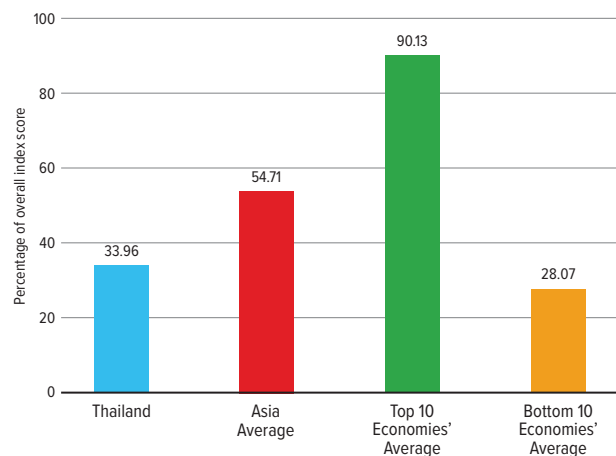
Taking into consideration these political hurdles to Taiwan becoming a contracting party to many of the treaties included in the Index, Taiwan has, since the fifth edition of the Index, not been scored on whether it is a signatory to and has acceded to these treaties. Instead, the Index has measured the extent to which core elements of the treaties included in the Index are present in equivalent Taiwanese domestic legislation. This is, however, not possible to do for all the treaties included in the Index. For example, those treaties whose primary goal is to establish and harmonize administrative and operational procedures for the international registration of IP rights cannot be scored for Taiwan. Such treaties measured in the Index include the Patent Cooperation Treaty, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, and the Hague Agreement Concerning the International Registration of Industrial Designs. Consequently, Taiwan's performance on this category does not include these treaties and the maximum available score for Taiwan is 5.5 and not 7. Overall, Taiwan's maximum available score on the Index is therefore 48.5 not 50.

THAILAND RANK 45/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Customs Act has resulted in greater anticounterfeiting efforts against infringing goods in transit
- ✓ Proposed copyright amendments would address many of the existing deficiencies and weaknesses in Thai copyright law
- ✓ Moved from the Priority Watch List to the Watch List on USTR's Special 301 Out-of-Cycle Review—driven by stronger enforcement and coordination within the Thai government
- ✓ Basic level of protection and registration system in place for copyrights, trademarks, and designs, including recently becoming a member of the Madrid Protocol

KEY AREAS OF WEAKNESS

- ✗ Inadequate patent protection, gaps in patentability, and severe patent backlogs
- ✗ Life sciences IP rights inconsistent with TRIPS
- ✗ Incomplete digital copyright regime and hurdles to/lack of clarity on effective implementation (though injunctive relief mechanism now available)
- ✗ Barriers to market access for patent holders
- ✗ High physical counterfeiting and digital piracy rates—software piracy estimated at 64%
- ✗ Limited participation in international treaties

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		2.72	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.50
2. Patentability requirements	0.25	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	0.72	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	2.00	
8. Membership of the Patent Prosecution Highway (PPH)	0.50	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.00	18. Protection of well-known marks	0.25
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
2.28		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
10. Copyright (and related rights) term of protection	0.53	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	0.90	
		21. Industrial design term of protection	0.40

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.75
Category 5: Trade Secrets and the Protection of Confidential Information	0.50	Category 8: Systemic Efficiency	3.25
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	1.67	42. Targeted incentives for the creation and use of IP assets for SMEs	0.50
26. Barriers to market access	0.00	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.25	Category 9: Membership and Ratification of International Treaties	1.00
28. Registration and disclosure requirements of licensing deals	0.00	44. WIPO Internet Treaties	0.00
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	2.66	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.32	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.34	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.75		
TOTAL: 16.98			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Thailand's overall score has increased from 32.22% (14.5 out of 45) in the seventh edition to 33.96% (16.98 out of 50) in the eighth edition. This was driven by a relatively strong performance on the new indicators added to the Index and a score increase on Indicator 20.

Patents, Related Rights, and Limitations

2. Patentability requirements; and 9. Patent opposition:

As noted in past editions of the Index, patent prosecution times in Thailand are long and there is a substantial backlog of applications pending. The Thai Department of Intellectual Property (DIP) recognized this problem and over the past few years has sought to reform the patent application process, improve prosecution times, and reduce the backlog. Through administrative reform and hiring more examiners, the DIP achieved a 20% reduction of the patent backlog during 2018. The Thai authorities should be commended for their efforts and focus on addressing these challenges for inventors. Still, as of

late 2018 16,000 patents were awaiting examination and patent approval remains unpredictable, particularly in areas that require examiners with high technical skills such as for pharmaceuticals and biotechnology. Long-proposed amendments to the Patent Act that are being considered by the Council of State would contribute to streamline approval procedures and abolish the existing pre-grant opposition system. Instead, a new post-grant invalidation procedure would be instituted. These would both be positive steps and improve the patenting environment in Thailand. At the time of research, it was not clear when, or if, these proposed amendments would become law. The Index will continue to monitor these developments in 2020.

Trademarks, Related Rights, and Limitations

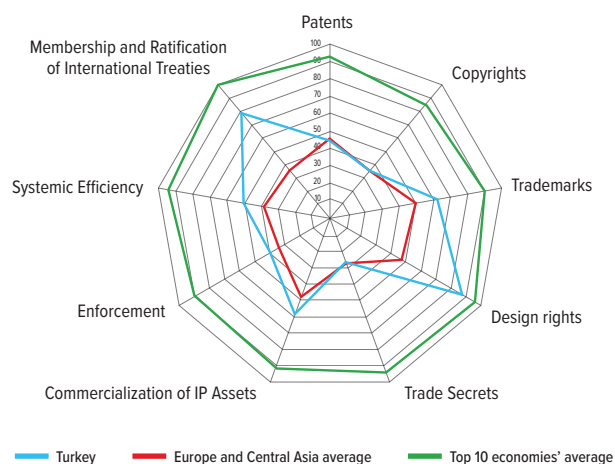
20. Availability of frameworks that promote action

against the online sale of counterfeit goods: In 2019 there were a number of positive developments regarding online enforcement against counterfeit goods. The DIP held consultations with some of the major e-commerce

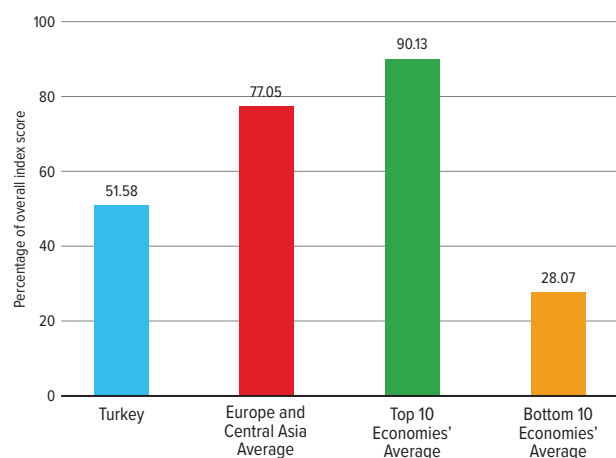
platforms aimed at discussing tools and procedures to more effectively tackle online infringement and the sale of counterfeit goods. The two largest online shopping platforms in Thailand, Lazada and Shopee Thailand, reported on existing or recently enhanced systems to tackle online piracy. Lazada—a subsidiary of Alibaba—has begun implementing Alibaba’s IP Protection Platform system, which enables customers to file a complaint directly with the platform through either the website or mobile application. Shopee reported on an online link and a call center line where rights-holders can submit their complaints. Furthermore, in July 2019 the DIP organized a workshop that brought together rights-holders, internet platforms, and national and foreign enforcement agencies to discuss the platforms’ role in tackling online piracy. The DIP also created a dedicated unit for online violations tasked with furthering dialogue among relevant stakeholders, including online marketplaces. Because of these positive developments, the score on this indicator has increased by 0.25.

TURKEY RANK 26/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Has sought to align its national IP environment with EU standards over the years
- ✓ Active promotion of importance of IP protection and use as an economic asset among public/SMEs
- ✓ Generous R&D- and IP-specific tax incentives in place

KEY AREAS OF WEAKNESS

- ✗ No patent term restoration offered for biopharmaceuticals
- ✗ RDP not granted to biologics
- ✗ Key gaps persist in copyright environment and patent protection and enforcement
- ✗ For biopharmaceuticals, industrial localization policies have fused together with IP policy and broader health policy on the pricing and procurement of medicines
- ✗ High counterfeiting and software piracy rates—56% in latest BSA estimates

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		4.00	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.25
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.25
3. Patentability of computer-implemented inventions	0.50	14. Scope of limitations and exceptions to copyrights and related rights	0.25
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	0.50	18. Protection of well-known marks	0.75
9. Patent opposition	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
Category 2: Copyrights, Related Rights, and Limitations		2.49	
10. Copyright (and related rights) term of protection	0.74	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	1.00

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.75	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.75
Category 5: Trade Secrets and the Protection of Confidential Information	0.80	Category 8: Systemic Efficiency	2.50
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.50
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.30	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	3.50	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	5.50
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.50	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.75
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.75
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	2.75	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.31	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.44	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.50		
TOTAL: 25.79			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Turkey's overall score has increased from 46.87% (21.09 out of 45) in the seventh edition to 51.58% (25.79 out of 50) in the eighth edition. This was driven by a strong performance on the new indicators added to the Index coupled with a score reduction on Indicator 25.

Patents, Related Rights, and Limitations

4. Plant variety protection: In 2017 Turkey acceded to the International Convention for the Protection of New Varieties of Plants, act of 1991 and issued Law No. 5042 on the Protection of Breeder's Rights for New Plant Varieties. The term of protection is 30 years for trees, vines, and potatoes and 25 years for other varieties.

Copyrights, Related Rights, and Limitations

11. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including web hosting, streaming, and linking); 13. Availability of frameworks that promote

cooperative action against online piracy; and 15.

Digital rights management legislation: A draft copyright bill was released by the Ministry of Culture for public consultation and was awaiting parliamentary approval at the time of research. The bill contains several important provisions that would potentially strengthen Turkey's copyright environment. To begin with, the bill grants *ex officio* power to the Turkish National Police regarding IP cases. The draft law strengthens provisions relating to the anticircumvention of technological protection measures. Regarding online infringement, the bill enables rights-holders to directly apply to the public prosecutor to disable access to infringing content in urgent cases without having to first notify the content provider. As noted in previous editions of the Index, online piracy is prevalent and problematic in Turkey. Industry reports have estimated the size of the pirated and counterfeit market at over USD10 billion. Similarly, BSA's estimated rates of the use of unlicensed software suggest that, since 2011, Turkey has had a fairly high rate of software piracy for an OECD

Member State. While dropping from a high of 62% in 2011, the latest estimate from 2018 was still 56%. This compares with an average estimated rate of 26% in Western Europe. The Index will continue to monitor these developments in 2020.

Economic Contribution of Copyright Industries in Turkey, found that in 2011 the copyright-based industries generated a value equivalent to 2.73% of GDP and employed about 5.4% of total workers.

Trade Secrets and the Protection of Confidential Information

25. Regulatory data protection term: As noted in previous editions of the Index, the term of regulatory data protection provided by the Regulation on Licensing Human Medical Products is six years; however, in practice the period can be as short as one or two years. This is a result of two factors: (1) The term of protection is counted from the date of marketing authorization in any country of the European Union Customs Union; and (2) there can be a considerable gap between this date and the date a product receives market authorization in Turkey. Furthermore, industry reports suggest that protection is not provided for large molecule biologics drugs. Because of this lack of protection for biologics, the score for this indicator has been reduced from 0.6 to 0.3.

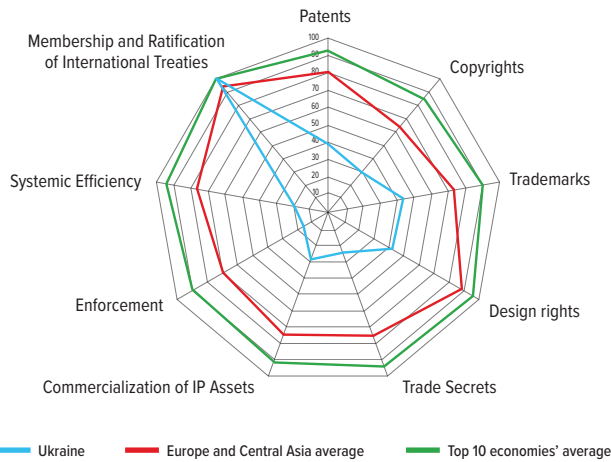
Systemic Efficiency

43. IP-intensive industries, national economic impact

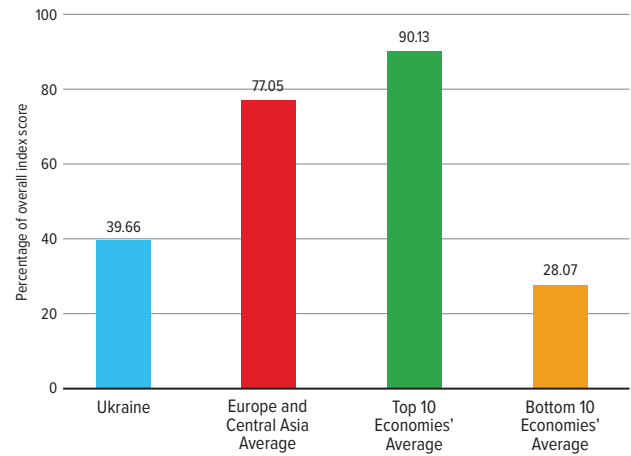
analysis: There is a growing awareness and recognition by Turkish officials of the need to monitor and measure the relationship between IP rights and economic activity. This was most recently emphasized in the 11th Development Plan for 2019-2023, unveiled in July 2019. Turkey has held discussions on the importance of IP-intensive industries to building a knowledge-based economy and to Turkey's future economic development. As part of these discussions, the government committed to measuring the national contribution of IP-intensive and high-tech industries was listed as a specific action point. The cultural industries were listed as a specific sector that should be better monitored and measured. Turkey has maintained a relatively strong focus on the creative industries both through the work of the national statistics office, TURKSTAT, as well as through its cooperation with WIPO. For example, in 2014 a study on the economic impact of the creative industries in Turkey was carried out by a team of local academics with the support of WIPO, the Turkish Ministry of Culture and Tourism, the Ministry of Development, the Ministry of the Economy, and TURKSTAT. The report, *Study on the*

UKRAINE RANK 38/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New case law on trade secrets sets potential precedent
- ✓ Amendments to Customs Code strengthens enforcement capacity
- ✓ Efforts to align IP legislation to EU standards (with some important exceptions including on biopharmaceutical patentability) and implement DCFTA
- ✓ New first-instance court for IP matters (the "High Court") set up in 2017 that should help improve consistency and expertise within judiciary
- ✓ Contracting party to all international IP treaties included in the Index

KEY AREAS OF WEAKNESS

- ✗ Major gaps across all categories of the Index—both a lack of relevant IP laws and weak enforcement
- ✗ High rates of counterfeiting and piracy, among the top worldwide
- ✗ Software piracy rate is 80% in BSA's latest estimates
- ✗ High rates of physical counterfeiting—key transit point for counterfeiting entering EU
- ✗ Gaps in customs activities; notable lack of effective procedures for destruction of counterfeits

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		Category 3: Trademarks, Related Rights, and Limitations	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.00	13. Availability of frameworks that promote cooperative action against online piracy	0.25
3. Patentability of computer-implemented inventions	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.25	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	Category 4: Design Rights, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	1.00	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	0.00	18. Protection of well-known marks	0.50
9. Patent opposition	0.25	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
Category 2: Copyrights, Related Rights, and Limitations		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.00
10. Copyright (and related rights) term of protection	0.58	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25	21. Industrial design term of protection	0.60

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.75	Category 8: Systemic Efficiency	1.00
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.00	40. Consultation with stakeholders during IP policy formation	0.25
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.25
Category 6: Commercialization of IP Assets	1.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.00
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.25	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	0.50	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.25	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	1.15	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.20	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.20	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.25		
37. Effective border measures	0.25		
TOTAL: 19.83			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Ukraine's overall score has increased from 33.44% of the total possible score (15.05 out of 45) in the seventh edition to 39.66% (19.83 out of 50) in the eighth edition. This was driven by a strong performance on the new indicators added to the Index and score increases on Indicators 23 and 37.

Trade Secrets and the Protection of Confidential Information

23. Protection of trade secrets (civil remedies): As noted in previous editions, rights-holders face substantial challenges in enforcing their IP rights in Ukraine. In 2013 the USTR designated Ukraine as a Priority Foreign Country, citing deep concerns about its national IP environment. Regarding the protection of trade secrets, rights-holders have historically faced challenges in terms of both the legal framework and effective remedies through the court system; however, in 2018-19 there were some welcome developments that could help set important precedents

for future trade secret litigation. In December 2018 the Antimonopoly Committee of Ukraine issued a landmark decision that found the use of a trade secret by competitors to be an unfair competition offense. The defendant, a company that had acquired the list of suppliers and clients of a competitor from one of its former employees, was subject to a fine equal to 3.4% of its total revenue (about USD15,000). As a result of this positive action, Ukraine's score on Indicator 23 has increased by 0.25.

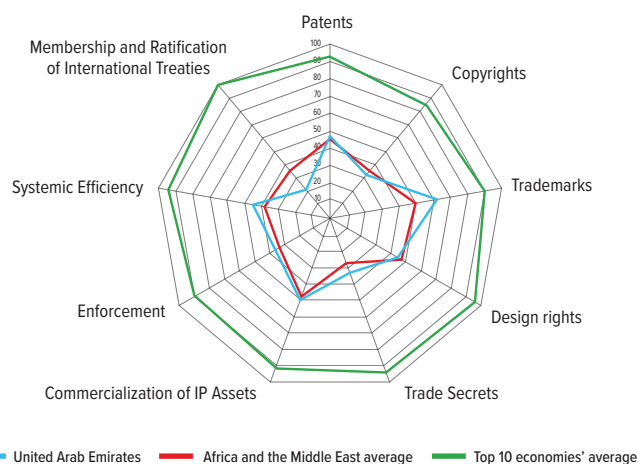
Enforcement

37. Effective border measures: In 2019 Law 202-IX on "Amendments to the Customs Code on Protection of Intellectual Property Rights upon the Transportation of Goods across the Customs Border of Ukraine" entered into force. The law is intended to increase Ukraine's compliance with relevant EU rules on customs powers and border enforcement. Importantly, the law more clearly extends customs action to in-transit goods. In the past, provisions relating to in-transit detainment have been ambiguous.

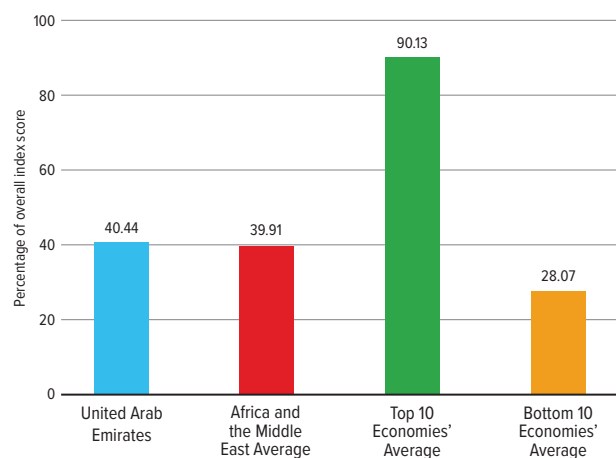
As noted in previous editions, the Customs Code has provided a clear *ex officio* authority to customs officials for many years, but local legal analysis and existing data on counterfeiting transit points suggests it is, in effect, not utilized. Ukraine remains a key transit point for the circulation of counterfeit goods globally. In a 2017 joint study by the OECD and EUIPO, *Mapping the Real Routes of Trade in Fake Goods*, Ukraine was described as one of four key transit points for redistributing counterfeit products aimed at the EU market. Nevertheless, this new law does signify an improvement in the legal environment and, as a result, the score on this indicator has increased by 0.25.

UNITED ARAB EMIRATES RANK 36/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New Foreign Direct Investment Law offers possibility of 100% foreign ownership
- ✓ Basic IP protections in place
- ✓ Enhanced anticounterfeiting efforts, including criminal penalties
- ✓ Awareness-raising and capacity-building efforts on importance and value of IP rights

KEY AREAS OF WEAKNESS

- ✗ Deep uncertainty over protection for biopharmaceutical patents, as no action has been taken on 2017 approval of two generic versions of a pharmaceutical product still on-patent
- ✗ Significant holes in copyright regime—limited online specific legal framework and enforcement capacity
- ✗ High levels of physical counterfeiting—UAE physical markets are listed in USTR's *Out-of-Cycle Review of Notorious Markets*
- ✗ Gaps in customs measures and civil remedies for infringement
- ✗ Limited participation in international treaties

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		4.25	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
2. Patentability requirements	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.00
3. Patentability of computer-implemented inventions	0.50	14. Scope of limitations and exceptions to copyrights and related rights	0.50
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	0.50
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.00	2.50	
8. Membership of the Patent Prosecution Highway (PPH)	0.00	17. Trademarks term of protection (renewal periods)	1.00
9. Patent opposition	0.25	18. Protection of well-known marks	0.50
Category 2: Copyrights, Related Rights, and Limitations		19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.75
2.28		20. Availability of frameworks that promote action against online sale of counterfeit goods	0.25
10. Copyright (and related rights) term of protection	0.53	Category 4: Design Rights, Related Rights, and Limitations	
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.50	0.90	
		21. Industrial design term of protection	0.40

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	1.00	Category 8: Systemic Efficiency	2.25
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.25
24. Protection of trade secrets (criminal sanctions)	0.50	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	3.00	42. Targeted incentives for the creation and use of IP assets for SMEs	0.25
26. Barriers to market access	0.25	43. IP-intensive industries, national economic impact analysis	0.25
27. Barriers to technology transfer	0.50	Category 9: Membership and Ratification of International Treaties	1.50
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	0.50	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	2.54	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.36	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.68	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.75		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.25		
TOTAL: 20.22			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

The UAE's overall score has decreased marginally from 40.49% (18.22 out of 45) in the seventh edition to 40.44% (20.22 out of 50) in the eighth edition. This was driven by a weak performance on the new indicators included in the Index and a score increase on Indicator 26.

Commercialization of IP Assets and Market Access

26. Barriers to market access: As noted in the previous edition, in September 2018 the UAE government issued a new Foreign Direct Investment Law through Federal Legislative Decree No. 19. The law offers the possibility of 100% foreign ownership, granting foreign investors a potential exemption from the requirement of having an Emirati partner holding a minimum of 51% of a company's shares, established by the Commercial Companies Law. The law contained a negative list of sectors excluded from its scope, which were natural resource extraction and related industries; banking; insurance; postal services; telecommunication and other audiovisual services; and

roads and transportation. At the time of this publication, it was also stated that a separate, "positive" published list would outline which parts of the economy would be open to foreign ownership; in 2019 this positive list was published, describing those sectors and types of economic activity that 100% foreign ownership would potentially be allowed in. The list comprises over 100 types of economic activity and is divided across three major areas: agriculture, industry, and services. Each area of activity has different capital and share-holding requirements. While allowing varying degrees of foreign ownership, the list also contains additional requirements for local employment and technology usage as well as potential transfer. Each area of economic activity is also subject to local licensing (i.e., in one of the emirates). Given this local control, the permitted levels of investment and equity holdings are likely to differ from one emirate to another. At the time of research, it was not clear how the licensing procedures would work, what the permitted percentages of equity ownership would be in different industries, and to what specific technology transfer

requirements (if any) foreign investors would be subject. Notwithstanding this, the publication of this positive list and the implementation of the Foreign Direct Investment Law is a positive step for the UAE. As a result, the score on this indicator has increased by 0.25.

Systemic Efficiency

43. IP-intensive industries, national economic impact

analysis: Both at the federal level and within individual emirates there is a growing emphasis on economic diversification and expanding the non-oil part of the national economy. The most recent and ambitious of these initiatives are the 2014 and 2015 *National Innovation Strategy* and *Vision 2021*. Both documents aim to transform the UAE into a leading knowledge-intensive economy built on innovation. Several key targets are part of both documents, including ranking among the top 20 economies on the Global Innovation Index; raising R&D expenditures to 1.5% of GDP (0.87% in 2015); and seeing non-oil real GDP growth of 5% year-on-year. More innovation- and technology-specific is the 2015 *Science, Technology and Innovation Policy*, a blueprint for developing the UAE's technical, scientific, and technological capacity. Within all of these documents and policies is an appreciation of the necessity of growing IP- and knowledge-intensive industries. In terms of quantifying and measuring the impact of IP-intensive industries, there is some measurement taking place by Emirati government agencies and authorities. For example, the government of Dubai and the Dubai statistics office measures the contribution to GDP from certain high-tech sectors, including ICT; however, overall there is no sustained comprehensive or regular effort to measure and quantify the economic impact that IP-intensive industries have in the UAE.

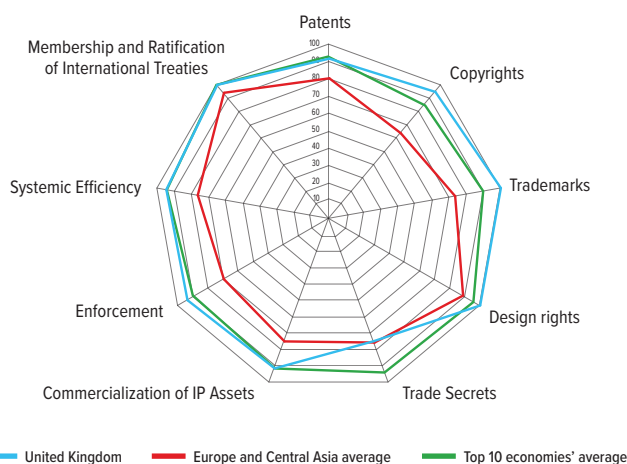
the new treaties included this year: the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks; the International Convention for the Protection of New Varieties of Plants, act of 1991; the Convention on Cybercrime, 2001; and the Hague Agreement Concerning the International Registration of Industrial Designs. The UAE has not concluded any post-TRIPS FTAs with substantive IP provisions or chapters in line with international best practices.

Membership and Ratification of International Treaties

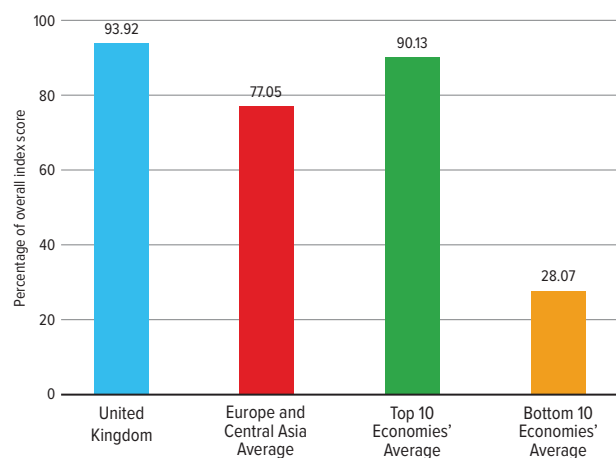
The UAE scores low in its participation in and ratification of international treaties. While its overall score on this category has risen from 1 to 1.5 as a result of the increased number of international treaties included in the Index, as a proportion of the available score for this category the UAE's performance is weaker than in years past. The UAE is a contracting party to the WIPO Internet treaties and the Patent Cooperation Treaty. It is not a contracting party to any of the other treaties in the Index. This includes four of

UNITED KINGDOM RANK 2/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Strong and sophisticated national IP environment
- ✓ A model for injunctive-style relief for rights-holders when battling online infringement
- ✓ Overall strong cross-sectoral enforcement environment, highlighted by the work of a specialist crime unit and cross-industry and government cooperation

KEY AREAS OF WEAKNESS

- ✗ Uncertainty over Brexit and impact on UK's national IP environment and existing EU laws and standards
- ✗ European Commission SPC exemption for exports of biopharmaceuticals poses significant risk to the UK's and EU's research and IP-based biopharma industry
- ✗ Limited criminal sanctions available for the theft and misappropriation of trade secrets

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		8.25	
1. Patent term of protection	1.00	12. Expedient injunctive-style relief and disabling of infringing content online	1.00
2. Patentability requirements	1.00	13. Availability of frameworks that promote cooperative action against online piracy	1.00
3. Patentability of computer-implemented inventions	1.00	14. Scope of limitations and exceptions to copyrights and related rights	1.00
4. Plant variety protection, term of protection	1.00	15. Digital rights management legislation	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.50	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	Category 3: Trademarks, Related Rights, and Limitations	
7. Patent term restoration for pharmaceutical products	0.75	17. Trademarks term of protection (renewal periods)	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	18. Protection of well-known marks	1.00
9. Patent opposition	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
Category 2: Copyrights, Related Rights, and Limitations		6.63	
10. Copyright (and related rights) term of protection	0.63	20. Availability of frameworks that promote action against online sale of counterfeit goods	1.00
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	1.00	Category 4: Design Rights, Related Rights, and Limitations	
		21. Industrial design term of protection	1.00
		2.00	

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.25	Category 8: Systemic Efficiency	4.75
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	1.00	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	5.50	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	0.75	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	1.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	6.58	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.79	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.79	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	1.00		
36. Criminal standards including minimum imprisonment and minimum fines	1.00		
37. Effective border measures	1.00		
TOTAL: 46.96			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

The UK's overall score has increased marginally from 93.82% (42.22 out of 45) in the seventh edition to 93.92% (46.96 out of 50) in the eighth edition. This was driven by a strong performance on the new indicators added to the Index but a score decrease on Indicator 7.

Area of Note: Brexit

There continues to be uncertainty concerning the terms under which the UK will leave the European Union and the two regions' future trading relationship. Following the June 2016 referendum, the British government triggered Article 50 of the Lisbon Treaty in early 2017. Britain and the EU have since been in negotiations over the future terms of their relationship. In late 2017 it was announced that a two-year transition period would follow the March 2019 withdrawal deadline and that the EU and UK were continuing to negotiate the terms of their future trading relationship. In November 2018 the British government and European Commission announced that a final agreement

on the terms for the UK's withdrawal had been reached. Titled the *Agreement on the Withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community*, it included a separate chapter covering intellectual property. Title IV of Part 3, "Separation Provisions," Articles 54-61, provided much needed clarity on the future legal environment. For example, the agreement clarified that holders of European Union trademarks, registered designs, and community plant variety rights would, without reexamination, be granted equivalent rights in the UK. Subsequent to this announcement the British Parliament rejected the agreement on three separate occasions. In October 2019 a new British government, led by Prime Minister Boris Johnson, announced that a revised agreement had been reached with the European Union. Although it introduced substantive changes to the original agreement regarding customs procedures and the border between Northern Ireland and Ireland, the provisions relating to IP rights were largely unchanged. Following

a decisive victory for the ruling Conservative Party in a general election held on December 12, 2019, Prime Minister Johnson announced that the UK would leave the EU in early 2020. As noted in previous editions of the Index, the UK government has recognized the negative impact that uncertainty over Brexit is having vis-à-vis IP rights-holders, and it has attempted to keep rights-holders abreast of how the UK's national IP environment is likely to change after Brexit. In particular, the UK IPO should be commended for its work in issuing and updating guidance documents on key areas of concern to UK and international rights-holders that continued throughout 2019. The Index will continue to monitor the Brexit process and its ramifications for IP rights-holders.

Patents, Related Rights, and Limitations

7. Patent term restoration for pharmaceutical products:

In 2015, under the overarching initiative to reform and deepen the single market with the purpose of spurring economic growth in the EU, the European Commission announced its intentions to explore options for recalibrating certain elements of patent term restoration for biopharmaceuticals—so-called “Supplementary Protection Certificates.” One option for change put forth by the commission was to provide European manufacturers of generic drugs and biosimilars with an SPC manufacturing and export exemption, called an “SPC exemption.” The overriding purpose of the proposal was to provide European manufacturers of generic drugs and biosimilars a competitive advantage by weakening IP protection for innovators. The underlying logic of the commission's proposal was highly dubious, and the claims of economic gains were subsequently questioned by several studies. Furthermore, economic modeling suggested that, in fact, the proposed policy was likely to have a negative impact on the research-based industry. Overall, European policymakers appear to have lost sight of the fact that IP rights, including SPC protection, have been central to the success of Europe's research-based biopharmaceutical industry. As an industry, the research-based biopharmaceutical sector is one of Europe's biggest success stories. European companies are some of the largest, most innovative, and most successful in the world. Not only does this industry have a long track record of producing life-saving medical innovations that have been, or are currently being, used by millions of

patients around the world, but the industry is also an engine of economic growth in the EU. Figures from the European Federation of Pharmaceutical Industries and Associations show that in 2015 the European research-based industry provided nearly 740,000 direct jobs (with over 113,000 in high-skill R&D jobs), over EUR33.5 billion in R&D investments, and over EUR238 billion in production in 2015 alone. As the Index has pointed out in past editions, there were many troubling assumptions underlying the commission's proposal. Most basically, the proposal assumed that there is an actual market and demand for European generic manufacturers. Yet it is not at all clear what this market is or where the demand for generic medicines produced in Europe would come from. The markets that, per definition, would be targeted by European generic manufacturers under an SPC exemption are economies that do not provide IP protection and exclusivity for products under SPC protection in the EU, for which the SPC exemption would apply. In all likelihood, generic follow-on products are already on the market in many of these economies and, critically, being produced by local manufacturers who are often preferred partners in local drug procurement. Why would these targeted markets favor European generic manufacturers as opposed to their own domestic ones? Especially since, in many cases, they already have a health and pharmaceutical policy framework in place that actively discriminates against foreign manufacturers. Such localization policies often include price preferences in government tenders; import bans and increased taxation on foreign products; and local affiliation and/or production requirements. And for those markets in which equivalent SPC protection mechanisms are in place, it is highly unlikely that an SPC exemption would grant the European generic and biosimilar manufacturers an exclusive status for early market entry of their products across the globe. More broadly, instead of allowing European generic manufacturers to gain a competitive advantage, it is much more likely that over time other economies will emulate the EU and introduce policies that undermine biopharmaceutical IP protection. In fact, the obvious response to the EU SPC exemption is other economies asking themselves, “If the European Union is weakening IP standards to benefit its domestic industries, why shouldn't we do the same?” Overall, instead of benefiting the European generics industry, the SPC exemption is likely to hurt Europe's research-based industry

and lead to a global race toward the bottom in weakening global IP standards. Indeed, this has been recognized by several key EU Member States. In May 2019, when the measure was voted on by the European Council, Denmark, Sweden, and the UK all voted against it. The European Council subsequently issued a statement whereby several Member States raised concerns about the policy and its potential damage to Europe's research-based industries. Of note is the Danish government's perceptive criticism of the policy: "While reflecting a compromise, the final text of the regulation presents wide implications **that may potentially benefit one side of the pharmaceutical industry in the future but may generate significant damage today for the other.** By allowing storing of medicinal products and affecting acquired rights of the SPC holders, **Denmark believes that the result is disproportionate and goes far beyond what is necessary in order to achieve with the objective of the proposal**" [emphasis added]. Despite this criticism, Regulation 2019/933 has been in force since July 2019 and the SPC export exemption is now, for all intents and purposes, legal and operational in all EU Member States. As has been stated in previous editions of the Index, the decision to move ahead with the SPC exemption is a significant blow to biopharmaceutical rights-holders and weakens the IP environment across the EU. As a result of this action, the score on this indicator has been reduced by 0.25 for all EU Member States, the UK included.

Systemic Efficiency

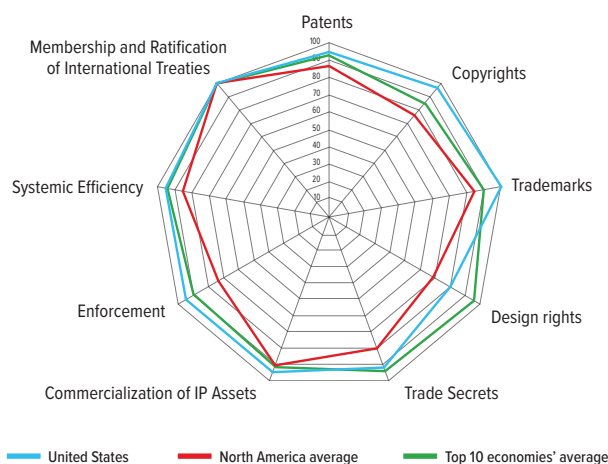
43. IP-intensive industries, national economic impact

analysis: As a Member State of the European Union and contracting party to the European Patent Convention, the UK government also takes part in the multitude of research efforts conducted by European institutions. A whole swathe of European institutions study the economic impact of IP-intensive industries in the EU and Europe. Major institutions that publish studies and research on various aspects of the economics of IP-intensive industries include the EPO, EUIPO, EUROSTAT, and European Commission. The latest such research is the 2019 *IPR-Intensive Industries and Economic Performance in the European Union*, published by the EUIPO and EPO. This study found that IP-intensive industries contributed an estimated 42.6% of British GDP, on average, in the period 2014-16. Similarly, with respect to employment, an estimated 28.1% of the British labor force worked in IP-intensive industries. The UK IPO regularly

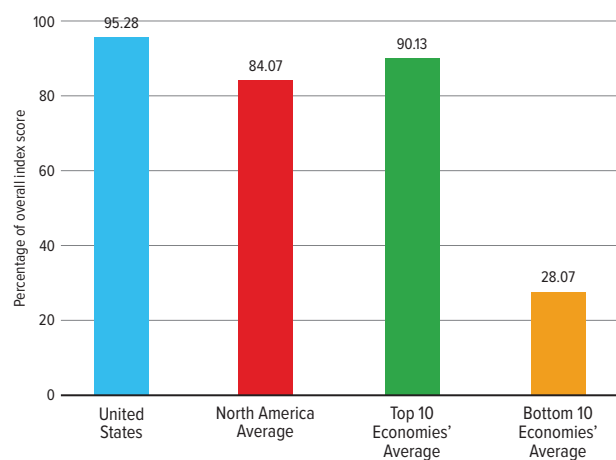
produces research on IP-intensive industries and their economic impact. Under section 21 of the 2014 Intellectual Property Act, the agency is statutorily obliged to produce regular updates to parliament on the extent to which the agency's activities have "contributed to the promotion of innovation and of economic growth" and "legislation relating to intellectual property has been effective in facilitating innovation and economic growth." These reports, *Promoting Innovation and Growth: The Intellectual Property Office at Work*, provide a good overview of the importance that intangible assets and IP-intensive industries play in the British economy. Furthermore, the UK IPO regularly commissions and publishes a range of free-standing research reports on the positive relationship between IP rights and economic activity. This includes, for instance, the 2016 *UK Intangible Investment and Growth: New Measures of UK Investment in Knowledge Assets and Intellectual Property Rights*. The UK IPO also plans to produce a study akin to the EPO and EUIPO's research. In the 2018-19 *Promoting Innovation and Growth*, the UK IPO stated that it is "currently working on a bespoke set of estimates on IP intensities across sectors using UK specific data."

UNITED STATES RANK 1/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ New USPTO guidance covering section 101, patentability, and section 112, claims relating to computer inventions
- ✓ Global leader and standard setter for the protection and enforcement of IP rights
- ✓ Sector-specific rights and protections in place across all categories of the Index
- ✓ Reform efforts to patent opposition proceedings by USPTO in 2018-19 should provide a greater balance and address concerns over unpredictability and uncertainty

KEY AREAS OF WEAKNESS

- ✗ Proposals for compulsory licensing as a pharmaceutical cost-containment policy
- ✗ Continued uncertainty over patentability for high-tech sectors
- ✗ Lack of a targeted legal basis for addressing online piracy along the lines of those of other global leaders

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations	8.50	12. Expedient injunctive-style relief and disabling of infringing content online	0.75
1. Patent term of protection	1.00	13. Availability of frameworks that promote cooperative action against online piracy	1.00
2. Patentability requirements	0.75	14. Scope of limitations and exceptions to copyrights and related rights	1.00
3. Patentability of computer-implemented inventions	1.00	15. Digital rights management legislation	1.00
4. Plant variety protection, term of protection	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	1.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	1.00	Category 3: Trademarks, Related Rights, and Limitations	4.00
6. Legislative criteria and use of compulsory licensing of patented products and technologies	1.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	1.00	18. Protection of well-known marks	1.00
8. Membership of the Patent Prosecution Highway (PPH)	1.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	1.00
9. Patent opposition	0.75	20. Availability of frameworks that promote action against online sale of counterfeit goods	1.00
Category 2: Copyrights, Related Rights, and Limitations	6.75	Category 4: Design Rights, Related Rights, and Limitations	1.60
10. Copyright (and related rights) term of protection	1.00	21. Industrial design term of protection	0.60
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	1.00		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	1.00	38. Transparency and public reporting by customs authorities of trade-related IP infringement	1.00
Category 5: Trade Secrets and the Protection of Confidential Information	2.75	Category 8: Systemic Efficiency	4.75
23. Protection of trade secrets (civil remedies)	1.00	39. Coordination of IP rights enforcement	1.00
24. Protection of trade secrets (criminal sanctions)	1.00	40. Consultation with stakeholders during IP policy formation	1.00
25. Regulatory data protection term	0.75	41. Educational campaigns and awareness raising	1.00
Category 6: Commercialization of IP Assets	5.67	42. Targeted incentives for the creation and use of IP assets for SMEs	0.75
26. Barriers to market access	1.00	43. IP-intensive industries, national economic impact analysis	1.00
27. Barriers to technology transfer	1.00	Category 9: Membership and Ratification of International Treaties	7.00
28. Registration and disclosure requirements of licensing deals	1.00	44. WIPO Internet Treaties	1.00
29. Direct government intervention in setting licensing terms	1.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	1.00
30. IP as an economic asset	1.00	46. Patent Law Treaty and Patent Cooperation Treaty	1.00
31. Tax incentives for the creation of IP assets	0.67	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	6.62	48. Membership of the Convention on Cybercrime, 2001	1.00
32. Physical counterfeiting rates	0.77	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.85	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	1.00
34. Civil and procedural remedies	1.00		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	1.00		
36. Criminal standards including minimum imprisonment and minimum fines	1.00		
37. Effective border measures	1.00		
TOTAL: 47.64			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

The United States' overall score has increased from 94.80% (scoring 42.66 out of 45) in the seventh edition to 95.28% (scoring 47.64 out of 50) in the eighth edition. This was driven by a strong performance on the new indicators added to the Index.

Patents, Related Rights, and Limitations

2. Patentability requirements: Since the Supreme Court decisions in *Myriad*, *Mayo*, and *Alice*, there has been a high and sustained level of uncertainty about what constitutes patentable subject matter in the United States. Since 2014 the USPTO has issued and updated patent examination guidelines almost on an annual basis. Lower and circuit court decisions in patent infringement proceedings have not always been consistent. The net result is that rights-holders are left without a clear sense of how decisions on patent eligibility will be made or which patents claims will be upheld when granted patents are subsequently challenged or reviewed either through the

courts or through the *inter partes* proceedings within the USPTO. Under the leadership of Director Andrei Iancu, USPTO has recognized this dilemma and over the past two years sought to reformulate its position and the approach to be taken by its examiners. In January 2019 the USPTO released new draft guidance covering section 101, patentability, and section 112, claims relating to computer inventions, the “2019 Revised Patent Subject Matter Eligibility Guidance” and “Examining Computer-Implemented Functional Claim Limitations for Compliance with 35 U.S.C. 112.” Overall, this is a very positive step. Regarding section 101, patentability, the new guidance provides more of a principle-based analysis of how patentability will be judged and describes the stepwise approach examiners should follow to understand and apply the Supreme Court’s *Alice/Mayo* test. As the guidance rightly points out, the key challenge for USPTO examiners and courts has been to “consistently distinguish between patent-eligible subject matter and subject matter falling within a judicial exception.” The new guidance recognizes

this issue and seeks, to the extent that is possible without further statutory changes, to clear this up with a revised procedure and process for examiners to follow. The Index commends the USPTO Director Iancu for taking this action and working together with all stakeholders to improve what is a challenging situation for rights-holders, applicants, and examiners alike. With respect to the score on this indicator, given that the new guidance was issued only at the beginning of 2019, it is too early to assess whether it has had a positive and sustained impact on the question of what is patent-eligible subject matter; therefore, the score on this indicator remains unchanged. The Index will continue to monitor these developments in 2020.

However, the USPTO guidance is not binding on the courts and the interpretation of the Supreme Court decisions in *Myriad*, *Mayo*, and *Alice* by lower courts remains inconsistent and difficult to apply. There continues to be considerable uncertainty for innovators and the legal community, as well as an overly cautious and restrictive approach to determining eligibility for patentable subject matter in areas such as biotech, business methods, and computer-implemented inventions. This seriously undermines the long-standing world-class innovation environment and threatens the nation's global competitiveness. As a result, in 2019, the U.S. Senate IP Subcommittee held three days of hearings on changes to Sections 101 and 112 of the Patent Act to bring more clarity to the law. The Committee heard from a wide range of witnesses, including a number of legal societies, companies, and industry groups, many of which called for legislative reform of Section 101, citing the need for clarity on patentability in a wider, legislative context rather than leaving it to the courts.

6. Legislative criteria and use of compulsory licensing of patented products and technologies: As noted in previous editions, there has been growing interest in the use of compulsory licenses to override patents or other forms of exclusivity for biopharmaceutical products in the United States. The potential use of compulsory licenses has been justified on the basis of the perceived high cost of prescription drugs and is similar to the narrative at times, used in developing economies over the past three decades. The issuing of a compulsory license undermines the basic idea of the protection and

sanctity of property rights—including IP rights in place to protect and incentivize biopharmaceutical innovation. As international law, including the TRIPS treaty, and existing U.S. statute clearly state, while there are extreme circumstances involving national emergencies under which the issuing of a compulsory license is lawful and can be justified, cost is not a relevant justification or basis for compulsory licensing or the overriding of any granted form of biopharmaceutical exclusivity. Moreover, the use of these types of licenses would threaten the very foundation of the United States' position as the undisputed global leader in biopharmaceutical innovation. Biopharmaceutical breakthroughs by American firms are improving health treatment for patients globally, providing a steady stream of new drugs and health technologies. Since 2000, U.S. companies have developed more than 550 new medicines—roughly half of all drugs launched globally. U.S. research-based biopharmaceutical firms spent an estimated USD58.8 billion in 2015 on R&D, more than 80% of which was spent domestically. This leadership in global biopharmaceutical research and manufacturing also translates into large economic dividends for Americans. Revenues generated by a new blockbuster drug are comparable to the export of 1 million cars. The sector also accounts for and supports 4.5 million jobs. The basic economics of the biopharmaceutical industry show how critical IP rights are to incentivize and support the development of new medical technologies and products. In 1979 the total cost of developing and approving a new drug stood at USD138 million. Almost 25 years later, in 2003, this figure was estimated to have rocketed to USD802 million. A more recent estimate puts the total cost of drug development at approximately USD1.5 billion. On average, only one to two of every 10,000 synthesized, examined, and screened compounds in basic research will successfully pass through all stages of R&D and go on to become a marketable drug. Patents and other forms of exclusivity for biopharmaceuticals, such as regulatory data protection and special exclusivity incentives for the protection and production of orphan drugs, enable research-based companies to invest these vast sums in R&D and in the discovery of new drugs, products, and therapies. It has been clear for many years that U.S. taxpayers and patients are concerned with the cost of prescription medicines and want their elected representatives to take appropriate action; however, involves many different factors such as

health financing, and how the U.S. health system itself is organized, financed, and accessed by patients. Within this cost equation the protection of IP plays a relatively small role. Instead of achieving the goal of lowering costs, proposals on using compulsory licenses as a cost-containment tool risk killing the proverbial golden goose and model of innovation that since the mid-1980s have been providing Americans, and patients around the world, with new and better health technologies and medicines. That is not a risk worth taking.

9. Patent opposition: The 2011 America Invents Act (AIA) introduced new post-grant opposition proceedings in an effort to provide a more cost-effective, efficient alternative to judicial proceedings for challenging patent claims that may have been improperly granted. As has been noted in previous editions, despite the intentions of these new AIA mechanisms, the result has been a high level of uncertainty and unpredictability for many patent owners. This has been especially the case with the *inter partes* review (IPR), which occurs before the specialized Patent Trial and Appeals Board (PTAB) within the USPTO. Over the past two years, the USPTO has recognized the unintended effects of the PTAB system and publicly pledged to work with all stakeholders to address and remedy them. The USPTO has introduced several important changes in 2018 and 2019. In 2018 USPTO Director Iancu stated that the reform of IPR proceedings was one of the agency's "highest priorities," and that he and his colleagues were considering "how and when we institute proceedings, the standards we employ during the proceedings, and how we conduct the overall proceedings. The goal, with whatever action we take, is to increase predictability of appropriately-scoped claims." Following these remarks, important reforms were announced in 2018. These included (1) changing the patent claim construction standard used, moving away from the broadest reasonable interpretation (BRI) standard to the so-called Phillips standard, the latter of which is the claim construction standard used by federal courts since the mid-2000s; (2) a new *Trial Practice Guide*; and (3) standard operating procedure (SOP) changes. Using the Phillips standard has aligned IPR proceedings with the same claim construction standards that are used in patent infringement proceedings at U.S. district courts. The new *Trial Practice Guide* provides greater clarity on the grounds on which a

review may be initiated. The changes to both SOP 1 and SOP 2 sought to streamline how judges are assigned, how panels are composed, and how precedent-setting opinions are set. Specifically, SOP 2 set up a Precedential Opinion Panel (POP) headed by the director. These reform efforts continued in 2019. At the time of research, the POP had issued 13 decisions in 2019 alone. Several of these decisions are of high procedural importance and address issues relating to the USPTO director's decisions to institute IPR proceedings (see, for example, *Valve Corp. v. Electronic Scripting Products, Inc.*) and procedural rules including the declaration of interested parties (*ProppantExpress Investments, LLC v. Oren Techs., LLC*). As with the issuing of new guidance on patentability, the USPTO should be commended for taking decisive action and attempting to create a greater degree of balance within the IPR system. The Index will continue to monitor these developments in 2020.

Copyrights, Related Rights, and Limitations

13. Availability of frameworks that promote cooperative action against online piracy: Section 512 of the Digital Millennium Copyright Act (DMCA) provides a notification mechanism whereby rights-holders can work together with hosts, service providers, and internet mediators (including ISPs) to address issues of online infringement. Although over 20 years old, the rationale behind the law remains sound: a desire to effectively address potential copyright infringement without unduly overburdening service providers. However, the law was passed in 1998, and, as a practical matter, it is questionable whether the law remains effective. At the time the legislation was passed, the global market for copyrighted products was fundamentally different than that of today. In 1998 music sales in the United States totaled almost USD14 billion. Of this amount, sales of physical compact discs accounted for 83.3% of the total. In 2018 total music sales in the United States was less than USD10 billion, and sales of compact discs accounted for 7.1% of total sales. Now, digital downloads and streaming services (ad supported and paid) constitute close to 70% of total sales volume. More broadly, internet penetration in the United States and the use of mobile devices was still at an early stage in the late 1990s and not ubiquitous as it is now. Today, more than eight out of 10 Americans own a smartphone,

and internet penetration is near universal with 90% of Americans having access to the internet. The growth and scale of online piracy since 1998—whether through downloading, streaming, or some other technology—has mirrored this growth in internet connectivity. The scale and volume of online infringement has resulted in a growing strain on the notice-and-takedown mechanism instituted through the DMCA. Rights-holders have increasingly found themselves confronting a very different reality than that envisioned by the legislation—one where there is limited practical recourse to take effective action against online infringement. The adverse economic impact on the content industry has been staggering. A recent report by NERA Consulting, commissioned by the U.S. Chamber of Commerce’s GIPC, found that global online piracy costs the American economy nearly USD30 billion in lost sales each year. Since 2015 the United States Copyright Office has been carrying out a public study of section 512, holding several public roundtables and accepting empirical submissions from the public. Some of the papers submitted show just how challenging a reality many rights-holders face. For example, in 2016 the American Association of Independent Music, the Future of Music Coalition, and the Copyright Alliance all submitted to the United States Copyright Office survey evidence suggesting that (1) there was a high level of infringement taking place; (2) DMCA notices sent out were not being effectively acted upon; and (3) there was a high level of reoccurrence (i.e., infringing content taken down would be reposted or would reappear on the notified service provider’s website. Unlike other jurisdictions—including the European Union, Singapore, and now even India—rights-holders in the United States face great difficulty in obtaining an injunction to disable access to infringing content; instead rights-holders must pursue infringement claims through traditional litigation and court proceedings. These can often be lengthy and expensive. And while the past few years have seen several important cases judged or settled in favor of rights-holders—see, for example, the cases involving BMG and Cox Communications or UMG Recordings et al. and Grande Communications—these legal victories underscore the wider point that effective redress is no longer available through the section 512 notice-and-takedown system. U.S. policymakers must work together with all stakeholders to address and

remedy this situation. The Index will continue to monitor these developments in 2020.

Design Rights, Related Rights, and Limitations; and Enforcement

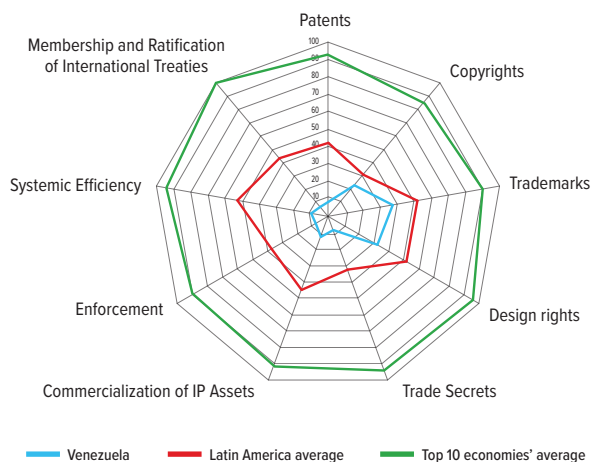
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights; and 37. Effective border measures:

Design rights and IP rights pertaining to industrial design are becoming increasingly important to rights-holders across the world. Statistics from WIPO on total design applications (direct and via the Hague System) show the number of applications globally growing from less than 200,000 in 1995 to more than 1 million in 2018. In the United States the number of design patent applications has shown a similar trajectory, increasing from just over 15,000 applications in 1995 to over 45,000 in 2018. The increasing importance of design rights protection is also reflected in the sharp uptick in goods infringing design rights. As the global economy becomes more connected and interlinked, the spread and availability of counterfeit goods is also rising. In 2016 the OECD estimated that the international trade in counterfeit and pirated goods represented almost half a trillion USD, the equivalent of 2.5% of global trade. Customs and enforcement data from around the world reveal that a large portion of counterfeit goods are designed goods—for example, different types of clothing and apparel, watches, sunglasses, and handbags and similar accessories. Although most customs authorities have experience dealing with traditional trademark and copyright enforcement—and in many economies offer rights-holders the ability to record their rights with national customs authorities—this option is not always available for design rights. The EU is one of the few jurisdictions where it is possible to file in individual Member States as well as all Member States a request for customs action specifying both registered and unregistered design rights as the right to be protected; this is currently not possible in the United States. As a growing number of rights-holders have noted, counterfeiters are becoming more sophisticated, often bypassing trademark infringement when importing infringing products into the United States. The U.S. Customs and Border Protection has long provided a global leadership role when it comes to the enforcement of IP rights and the fight against counterfeiting. The

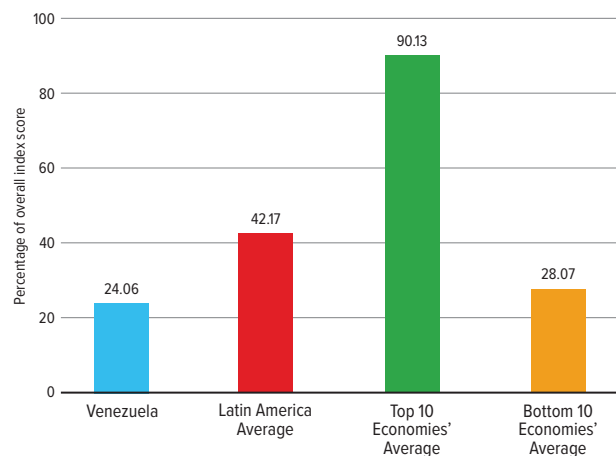
agency is currently undergoing a wholesale reevaluation of its strategic direction and operations through “The 21st Century Customs Framework” initiative. Because the circulation of counterfeit designed goods shows no signs of abating, more customs jurisdictions should examine their procedures and find ways to more actively recognize and incorporate ways of working with rights-holders on enforcing design rights too. The Index will continue to monitor these developments in 2020.

VENEZUELA RANK 53/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Basic copyright, trademark, and industrial design frameworks in place
- ✓ Awareness-raising and capacity-building efforts on the importance and use of IP rights

KEY AREAS OF WEAKNESS

- ✗ Very weak patent framework, with sector-specific patents and other IP rights not available
- ✗ Major holes in copyright protection, notably in the digital sphere
- ✗ Trademark legislation does not directly address unregistered marks and has limited recognition of well-known marks
- ✗ Enforcement generally poor—penalties insufficient and administrative inaction
- ✗ Government interference and regulatory barriers to commercialization of IP assets

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations	0.75	12. Expedient injunctive-style relief and disabling of infringing content online	0.00
1. Patent term of protection	0.50	13. Availability of frameworks that promote cooperative action against online piracy	0.25
2. Patentability requirements	0.00	14. Scope of limitations and exceptions to copyrights and related rights	0.25
3. Patentability of computer-implemented inventions	0.25	15. Digital rights management legislation	0.00
4. Plant variety protection, term of protection	0.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.25
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	Category 3: Trademarks, Related Rights, and Limitations	1.50
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	0.00	18. Protection of well-known marks	0.25
8. Membership of the Patent Prosecution Highway (PPH)	0.00	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.25
9. Patent opposition	0.00	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.00
Category 2: Copyrights, Related Rights, and Limitations	1.63	Category 4: Design Rights, Related Rights, and Limitations	0.65
10. Copyright (and related rights) term of protection	0.63	21. Industrial design term of protection	0.40
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.25	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	0.25	Category 8: Systemic Efficiency	0.50
23. Protection of trade secrets (civil remedies)	0.25	39. Coordination of IP rights enforcement	0.00
24. Protection of trade secrets (criminal sanctions)	0.00	40. Consultation with stakeholders during IP policy formation	0.00
25. Regulatory data protection term	0.00	41. Educational campaigns and awareness raising	0.50
Category 6: Commercialization of IP Assets	0.75	42. Targeted incentives for the creation and use of IP assets for SMEs	0.00
26. Barriers to market access	0.00	43. IP-intensive industries, national economic impact analysis	0.00
27. Barriers to technology transfer	0.00	Category 9: Membership and Ratification of International Treaties	0.50
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	0.50
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.00
30. IP as an economic asset	0.50	46. Patent Law Treaty and Patent Cooperation Treaty	0.00
31. Tax incentives for the creation of IP assets	0.00	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	0.00
Category 7: Enforcement	0.58	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.22	49. The Hague Agreement Concerning the International Registration of Industrial Designs	0.00
33. Software piracy rates	0.11	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.00
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.00		
36. Criminal standards including minimum imprisonment and minimum fines	0.00		
37. Effective border measures	0.00		
TOTAL: 7.11			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Venezuela's overall score has decreased from 15.80% (7.11 out of 45) in the seventh edition to 14.22% (7.11 out of 50) in the eighth edition. This reflects a weak performance on the new indicators added to the Index.

Area of Note

As has been noted in previous editions, rights-holders in Venezuela face a highly uncertain and challenging business environment, which remained unchanged in 2019. Political conditions remain fraught, with portions of the Venezuelan government ceasing to function. In 2018 the Venezuelan IP Office suspended its services and ceased operations for months. While the agency appears to have become operational in 2019, several confusing announcements were made regarding the processing of payments and fees. In February 2019 SAPI published a new set of official fees and stated that only the government-sponsored cryptocurrency, Petro, could be used as method of payment. This unusual arrangement presents international

rights-holders with distinct legal and logistical challenges. The Index will continue to monitor these developments in 2020.

Patents, Related Rights, and Limitations

4. Plant variety protection, term of protection: Article 23 of Decree No. 3.136 of December 23, 1998, provides a 25-year term of protection for trees and vines and a 20-year term for all other plant varieties; however, just as with many other IP laws, the protection of plant varieties and seed technologies has in effect been suspended in Venezuela. Specifically, the 2015 Seed Law (*Ley de Semillas*) explicitly prohibits the protection of seeds and seed technology through any form of IP right. Article 66 states that “the granting of breeder’s rights and patents on seed is prohibited, as well as any other mechanism that promotes their privatization.” As a result, the score on this indicator is 0.

Systemic Efficiency

43. IP-intensive industries, national economic impact

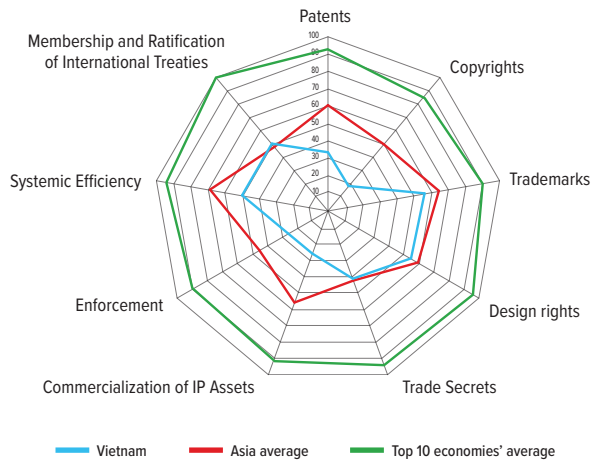
analysis: There is no indication that any Venezuelan government entity or agency has a program in place that monitors or measures the relationship between IP rights and economic activity. Venezuela has not sponsored, commissioned, or worked with WIPO to carry out an analysis of the creative sector's economic contribution to the national economy.

Membership and Ratification of International Treaties

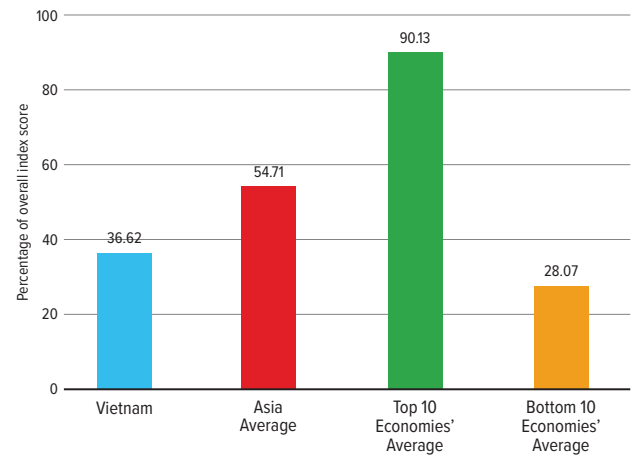
Venezuela is not a contracting party to any of the treaties included in the Index; Venezuela has signed but not acceded to the WIPO Internet treaties. Venezuela has not concluded a post-TRIPS FTA with substantive IP provisions. In 2016 Venezuela was suspended from the Mercosur free trade area and is not a contracting party to the recently signed EU-Mercosur FTA.

VIETNAM RANK 42/53

Category Scores



Overall Score in Comparison



Strengths and Weaknesses

KEY AREAS OF STRENGTH

- ✓ Basic IP protections and enforcement framework in place, with stronger penalties for commercial scale infringement
- ✓ Growing integration into international IP platforms—e.g., through EU-Vietnam FTA
- ✓ Long-standing effort to coordinate IP enforcement

KEY AREAS OF WEAKNESS

- ✗ Inadequate protection of life science patents, with challenging enforcement environment
- ✗ Gaps in copyright protection, including lack of measures to address online infringements
- ✗ High physical counterfeiting rates and rampant online infringement—BSA estimates a software piracy rate of 74%
- ✗ Enforcement generally poor; penalties insufficient in practice; administrative inaction

Indicator Scores

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations		12. Expedient injunctive-style relief and disabling of infringing content online	0.25
1. Patent term of protection	1.00	13. Availability of frameworks that promote cooperative action against online piracy	0.00
2. Patentability requirements	0.25	14. Scope of limitations and exceptions to copyrights and related rights	0.00
3. Patentability of computer-implemented inventions	0.00	15. Digital rights management legislation	0.25
4. Plant variety protection, term of protection	1.00	16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed	0.00
5. Pharmaceutical-related patent enforcement and resolution mechanism	0.00	Category 3: Trademarks, Related Rights, and Limitations	
6. Legislative criteria and use of compulsory licensing of patented products and technologies	0.00	17. Trademarks term of protection (renewal periods)	1.00
7. Patent term restoration for pharmaceutical products	0.00	18. Protection of well-known marks	0.25
8. Membership of the Patent Prosecution Highway (PPH)	0.50	19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks	0.50
9. Patent opposition	0.25	20. Availability of frameworks that promote action against online sale of counterfeit goods	0.50
Category 2: Copyrights, Related Rights, and Limitations		Category 4: Design Rights, Related Rights, and Limitations	
10. Copyright (and related rights) term of protection	0.53	21. Industrial design term of protection	0.60
11. Legal measures that provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking)	0.25		

INDICATOR	SCORE	INDICATOR	SCORE
22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights	0.50	38. Transparency and public reporting by customs authorities of trade-related IP infringement	0.00
Category 5: Trade Secrets and the Protection of Confidential Information	1.25	Category 8: Systemic Efficiency	2.50
23. Protection of trade secrets (civil remedies)	0.50	39. Coordination of IP rights enforcement	0.75
24. Protection of trade secrets (criminal sanctions)	0.25	40. Consultation with stakeholders during IP policy formation	0.50
25. Regulatory data protection term	0.50	41. Educational campaigns and awareness raising	0.75
Category 6: Commercialization of IP Assets	1.58	42. Targeted incentives for the creation and use of IP assets for SMEs	0.00
26. Barriers to market access	0.00	43. IP-intensive industries, national economic impact analysis	0.50
27. Barriers to technology transfer	0.25	Category 9: Membership and Ratification of International Treaties	3.50
28. Registration and disclosure requirements of licensing deals	0.25	44. WIPO Internet Treaties	0.00
29. Direct government intervention in setting licensing terms	0.00	45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks	0.50
30. IP as an economic asset	0.75	46. Patent Law Treaty and Patent Cooperation Treaty	0.50
31. Tax incentives for the creation of IP assets	0.33	47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991	1.00
Category 7: Enforcement	1.85	48. Membership of the Convention on Cybercrime, 2001	0.00
32. Physical counterfeiting rates	0.34	49. The Hague Agreement Concerning the International Registration of Industrial Designs	1.00
33. Software piracy rates	0.26	50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices	0.50
34. Civil and procedural remedies	0.25		
35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement	0.25		
36. Criminal standards including minimum imprisonment and minimum fines	0.50		
37. Effective border measures	0.25		
TOTAL: 18.31			

Spotlight on the National IP Environment

Past Editions Versus Current Scores

Vietnam's overall score has increased from 30.69% (13.81 out of 45) in the seventh edition to 36.62% (18.31 out of 45) in the eighth edition. This was driven by a strong performance on the new indicators added to the Index and a score increase on Indicator 35.

Area of Note

In August 2019 Prime Minister Nguyễn Xuân Phúc signed Decision No. 1068, which approved the *Intellectual Property Strategy 2030*. The strategy is intended to be Vietnam's guiding policy document on IP policy over the next decade. Developed by the Ministry of Science and Technology and other state agencies (there was also a public consultation held earlier in 2019), the strategy provides a comprehensive set of goals and aspirations of what Vietnam's national IP environment should look like by 2030. The Vietnamese government should be commended for taking such a comprehensive and

strategic approach to national IP policy. While focusing on broad goals, the strategy rightly recognizes the link between the provision and protection of IP rights and the creation, commercialization, and development of IP assets. For all economies—emerging and developed alike—the creation of *new* forms of intangible assets and IP drives innovation, technological advances, and ultimately economic development and growth. As the strategy points out, IP assets are critical to the future growth and prosperity of Vietnam, and a successful IP strategy will help Vietnam “enhance national competitiveness and promote economic, cultural and social development.” The strategy sets several key targets, including increasing the volume of IP registration across the board and amplifying levels of exploitation and commercialization. The Index looks forward to seeing more detailed proposals on specific legislative and administrative changes that will help Vietnam achieve the strategy's stated goals.

Enforcement; and Membership and Ratification of International Treaties

35. Preestablished damages and/or mechanisms for determining the amount of damages; and 50. Post-TRIPS

FTA: In March 2018, the contracting parties signed the final CPTPP agreement and the full text was released. As has been noted in previous editions, under the terms of the new agreement numerous critical provisions of the original TPP have been suspended, including provisions on patentable subject matter; biopharmaceutical-specific IP rights, such as regulatory data protection; copyright protection and enforcement; and protections relating to satellite and cable signals. The result is that the CPTPP does not conform to the modern standards of other post-TRIPS international trade agreements. Nevertheless, the text of the CPTPP does retain some aspects of the TPP's IP chapter, including the following key provisions and requirements on contracting parties:

- I The membership of international treaties (Article 18.7, International Agreements)
- II Enforcement of biopharmaceutical IP rights vis-à-vis the approval of follow-on products relying on submitted biopharmaceutical test data as part of a market authorization review process (Article 18.53, Measures Relating to the Marketing of Certain Pharmaceutical Products)
- III Design rights (Article 18.55, Protection of Industrial Design)
- IV Copyright (Article 18.64, Application of Article 18 of the Berne Convention and Article 14.6 of the TRIPS agreement; and Article 18.65, Limitations and Exceptions)
- V IP rights enforcement section (Articles 18.71-18.78, including Article 18.76, Special Requirements related to Border Measures, which requires providing national customs officials with ex officio powers to seize and detain suspected goods, including goods in transit)

VI Trade secrets (Article 18.78, Trade Secrets)

VII Government use of licensed software (Article 18.80, Government Use of Software)

Vietnam is one of the handful of economies that has ratified the CPTPP. In June 2019 the Vietnamese parliament (the National Assembly) passed new implementing legislation related to the CPTPP, including that for intellectual property: the Law Amending and Supplementing a Number of Articles of the Law on Insurance Business No. 24/2000 and the Law on Intellectual Property No. 50/2005. However, while this law introduces some important legislative changes, it does not include or address the majority of the CPTPP's IP provisions listed above. Local legal analysis suggests that further changes to Vietnam's national IP environment is expected soon and that they will incorporate relevant outstanding provisions from the CPTPP as well as the signed, but not ratified, EU-Vietnam FTA. Still, the implementing law does include some substantive changes. Of note is Article 205, which clarifies the way damages can be calculated and awarded in cases of IP infringement.

APPENDIX: METHODOLOGY, SOURCES, AND INDICATORS EXPLAINED

The Index consists of 50 indicators across nine separate categories:

- i) Patents, Related Rights, and Limitations
- ii) Copyrights, Related Rights, and Limitations
- iii) Trademarks, Related Rights, and Limitations
- iv) Design Rights, Related Rights, and Limitations
- v) Trade Secrets and the Protection of Confidential Information
- vi) Commercialization of IP Assets and Market Access
- vii) Enforcement
- viii) Systemic Efficiency
- ix) Membership and Ratification of International Treaties

As in previous editions, these categories are for ease in organizing the Index and have no statistical impact on weightings or on an economy's overall score. Each indicator is explained in more detail below.

Scoring methodology

As in previous editions of the Index, each indicator can score values between 0 and 1, and the cumulative score of the Index ranges from a minimum of 0 to a maximum of 50. Indicators can be scored using three distinct methods: binary, numerical, and mixed.

When an indicator is of a binary nature, each indicator is assigned either the value 0, if the particular IP component does not exist in a given economy, or 1, if the particular IP component does exist in a given economy.

Numerical indicators are those indicators that, for example, measure terms of exclusivity or are based on a quantitative source. Terms of exclusivity are calculated by dividing the actual term of exclusivity of each relevant indicator by a standard baseline. For example, the standard baseline used for the copyright term is that of 95 years provided in the U.S. to orphan works.²³ If an economy has a copyright term of 95 years, then the value it scores in this indicator is 1. If it has a copyright term of less than 95 years, then the value is less than 1. Details of the individual baselines used for different types of IP rights are provided below.

Where there are no adequate baselines and the legislative or regulatory existence of an indicator is not sufficient to determine its actual use or application, the score for that indicator will be mixed. The final score for that indicator will be based on an even split between

- i) primary and/or secondary legislation (regulation) in place; and
- ii) the actual application and enforcement of that primary and/or secondary legislation.

Mixed indicators are the majority of indicators used in the Index. The use of mixed indicators provides flexibility when scoring and allows the Index to more effectively accommodate "gray areas" in economy performance for a given indicator. Specifically, it is possible to assign a partial score rather than only a 0 or a 1. There are five possible scores available within a mixed indicator: 0, 0.25, 0.5, 0.75, and 1. The range of scores available

for mixed indicators means that greater nuance can be used when individual indicators are scored; the practical end result is that economies can receive partial scores for an indicator, which in some cases are a better approximation of a given reality.

Finally, there are also a few instances in which, rather than the *de jure* and *de facto* existence of a single element, a mixed indicator is split between two separate elements. For example, in Category 9: Membership and Ratification of International Treaties, the indicators are measured by the signature and ratification or accession to a given international treaty. Thus, 0.5 is given for being a signatory of a treaty and 0.5 for ratifying or acceding to that treaty. This is also the case for Indicator 7 (Patent term restoration for pharmaceutical products). This indicator consists of two distinct variables: (1) the existence of a term of patent restoration for pharmaceutical products due to the prolonged research, development, and regulatory approval periods for such products; and (2) the existence of any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration, including for industrial policy purposes. For this indicator, 0.75 of the available score is allocated to the existing term of protection compared with the current baseline rate of five years term restoration used in the U.S., EU, and Japan. The remaining 0.25 is allocated on the basis of a given economy providing any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration, including for industrial policy purposes.

Baselines used

When possible, the Index uses baseline values, measures, and models. These values are based on best practices regarding terms of protection, enforcement mechanisms (*de jure* and *de facto*), and/or model pieces of primary or secondary legislation that can be found at the national and international levels. Where no adequate baselines are found in

international law or treaties, the baselines and values used are based on what rights-holders view as an appropriate environment and level of protection.

IP rights baselines

Baselines	Baseline in years	Legislation model
Basic patent protection	20	TRIPS
Copyrights	95	U.S.
Trademarks	10	WIPO
Regulatory data protection	10	EU
Patent term restoration	5	EU/U.S./Japan
Design rights	25	EU

Measuring counterfeiting and piracy

Indicators 32 and 33 of the Index measure rates of physical counterfeiting and software piracy, respectively. There are several challenges when attempting to measure piracy and counterfeiting.

First, illegal activities are inherently difficult to measure and quantify with a high level of accuracy. Estimates will, out of necessity, be based on such variables as physical seizures and surveys; this is particularly true for online piracy.

Second, studies of rates of piracy and counterfeiting are often either specific to one or handful of economies, (focusing on one or a relatively small sample of economies) or global and not providing data at an individual economy level. The result is a relative paucity in the number of studies that measure and compare levels of piracy and counterfeiting with a sample of economies sufficient to make large-scale comparisons empirically robust.

Finally, because measures of piracy and counterfeiting are inexact, estimates of their economic impact can vary widely depending on the methodology and data samples used.²⁴

Up until the fourth edition of the Index, it had relied on two main sources for measuring piracy and counterfeiting:

- the OECD's General Trade-Related Index of Counterfeiting of Economies (GTRIC-e), which measures the relative rates of physical counterfeiting;²⁵ and
- software piracy rates compiled by the Business Software Alliance (BSA; 2018 being the latest published survey).

Both sources are robust and internationally recognized; furthermore, they cover a large sample of economies, providing a sound basis for both cross-economy comparisons and long-term use within the Index. And both the BSA software piracy rates and the GTRIC-e are numerical measures that can be transposed into two respective scores.

Still, there are caveats with the use of these measures, in particular the GTRIC-e.

The GTRIC-e measures the relative rates of physical counterfeiting and is based on international trade statistics and customs interception data. Crucially, the GTRIC-e does not take into account or measure domestically produced products or pirated digital products. The practical result is that several economies with relatively low levels of customs interception of counterfeit goods, yet high levels of domestically produced counterfeit goods or high levels of online piracy, can rank quite well within the GTRIC-e. This may not present an accurate reflection of their overall piracy and counterfeiting environment.

To address this challenge, the fourth edition of the Index incorporated a new proprietary Global Measure of Physical Counterfeiting. The measure was developed by the U.S. Chamber of Commerce and Pugatch Consilium to provide a new global measure of physical trade-related counterfeiting. This measure of physical counterfeiting is

also being used for this edition of the Index and provides the basis for the score on indicator 32.

The measure provides a total and per-economy estimate of rates of physical trade-related counterfeiting for each of the 53 economies included in the Index. The full details of the building of the model, methodology, and sources used, and an assessment of the wider threat of physical counterfeiting is provided in the report *Measuring the Magnitude of Global Physical Counterfeiting*, available on GIPC's and the Chamber's website.

In brief, the methodology of the Global Measure of Physical Counterfeiting builds on that developed by the OECD and the GTRIC-e. To obtain a unique estimate for each of the 53 economies included, the measure uses a proprietary metric that applies three weighted factors to provide a holistic take on the propensity for counterfeiting in the selected economies.

The first factor is a subset of the scores for the indicators within Category 7: Enforcement. They include

- the existence of civil and procedural remedies, including injunctions, damages for injuries, and destruction of infringing and counterfeit goods, as well as their effective application;
- the existence of preestablished damages and/or mechanisms for determining the amount of damages generated by infringement;
- criminal standards (including minimum imprisonment and minimum fines) in place and their application;
- effective border measures (measured by the extent to which in-transit goods suspected of infringement may be detained or suspended, as well as the existence of *ex officio* authority); and

- transparency and public reporting by customs authorities of trade-related IP infringement.

To capture the level of counterfeiting taking place within a given economy, this factor accounts for 50% of the score for Indicator 32.

The second factor incorporates the most recent updates to the OECD's GTRIC-e benchmark discussed in detail above.

The third factor used is the rate of perceived corruption within an economy, as measured by Transparency International's Corruption Perceptions Index. This measurement is based on the assumption that a strong relationship exists between corruption and counterfeiting—that is, authorities in economies that struggle with corruption tend to also overlook or place less emphasis on combating criminal activities, including counterfeiting.

Together the second and third factors constitute the remaining 50% of the score for Indicator 32.

The BSA survey expresses an economy's software piracy rate as a percentage. Within the Index, the reverse of the BSA software piracy percentage is used as the score for Indicator 33; so, the higher the BSA software piracy rate is in an economy, the lower its score on the Index. For example, if, according to BSA, economy X has an estimated software piracy rate of 90%, then it receives a score of 0.10 for Indicator 33 within the Index.

Sources

Scoring in the Index is based on both qualitative and quantitative evidence. To provide as complete a picture of an economy's IP environment as possible, this evidence is drawn from a wide range of sources. All sources used are publicly and freely available. The following is an outline of the different types of sources used.

Government

Sources from government branches and agencies include

- primary legislation;
- secondary legislation (regulation) from executive, legislative, and administrative bodies;
- reports from parliamentary committees and government agencies, including patent or intellectual property offices as well as enforcement agencies; and
- internal departmental guidelines, policies, assessments, and audits.

Legal

Sources from judicial authorities and legal practitioners include

- court cases and decisions;
- legal opinions written by judges; and
- legal analysis and opinions written by legal practitioners.

International institutions and third parties

These sources include:

- data, studies, and analysis from international organizations such as the OECD, WTO, WIPO, and others;
- publicly available reports, studies, and government submissions by industry organizations; and
- reports from non-governmental organizations and consumer organizations.

Academic

Academic sources include

- academic journals, books, and published manuscripts; and
- legal journals.

News

News sources include

- newspapers;
- news websites; and
- trade press.

In addition, over the course of the past few years, more and more governments and economies have started making submissions directly to the GIPC and U.S. Chamber of Commerce. These submissions include everything from updates on legislative and regulatory initiatives to details of various government policies, such as antipiracy initiatives, as well as data and statistics on anticounterfeiting measures and activities to fight online piracy.

We welcome these submissions and endeavor to use them together with all other available information to provide the most accurate depiction of the national IP environment in each of the economies sampled.

We wish to thank the governments and economies that have made these submissions, and we encourage all economies covered in the Index to consider following suit. The only criteria we use—just as for all the resources used in the Index—is that these sources and materials submitted to us need to be freely available and in the public domain.

Indicators explained

This section explains how each indicator in the Index is measured and scored.

Category 1: Patents, Related Rights, and Limitations

The indicators in this category relate to patent protection and related rights and limitations.

1. Patent term of protection – Measured by the basic patent term offered in the TRIPS agreement. This is a numerical indicator.

2. Patentability requirements – The extent to which patentability requirements are in line with international standards of novelty, inventive step, and industrial applicability.²⁶ This is measured by (1) existing *de jure* patentability guidelines and regulations, and (2) *de facto* standards established through the application of these guidelines and regulations through the examination process and judicial review. This is a mixed indicator.

3. Patentability of computer-implemented inventions – Measured by the extent to which primary and/or secondary legislation explicitly allows for the patentability of CIs. This is a mixed indicator.

4. Plant variety protection, term of protection – Measured by the maximum term of protection being offered, with the baseline term of protection being not less than 20 years (25 years for trees and vines) in accordance with the International Convention for the Protection of New Varieties of Plants.²⁷ This is a numerical indicator.

5. Pharmaceutical-related patent enforcement and resolution mechanism – Measured by the existence of primary and/or secondary legislation (such as a regulatory and/or administrative mechanism) that provides a transparent pathway for adjudication of patent validity and infringing issues prior to the marketing of a generic or biosimilar product. This score is evenly divided between the existence of a relevant mechanism and its application/enforcement. If no mechanisms are in place, then the maximum score that can be achieved is 0.5. Such a score is based on the extent to which *de facto* practices (such as expeditious preliminary injunctive relief) are in place that achieve a similar result. This is a mixed indicator.

6. Legislative criteria and use of compulsory licensing of patented products and technologies

– Measured by the extent to which primary and/or secondary legislation on the use of compulsory licensing (on the basis of the essential facilities doctrine) and its application/enforcement is transparent and consistent with the following criteria: (1) the issuing should exclude any requirement for domestic manufacturing; (2) the issuing should not apply to patented innovations that have not yet reached the market; (3) in the case of biopharmaceutical products, the use of compulsory licensing under the framework of TRIPS provisions on public health should not be for commercial purposes, such as for price negotiations or in support of domestic industries; and (4) adequate and well-defined recourse mechanisms should be in place for parties affected by the issuing of the license. This is a binary indicator.

7. Patent term restoration for pharmaceutical products

– This indicator consists of two distinct variables: (1) the existence of a term of patent restoration for pharmaceutical products due to the prolonged research, development, and regulatory approval periods for such products; and (2) the existence of any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration, including for industrial policy purposes. For this indicator, 0.75 of the available score is allocated to the existing term of protection compared with the current baseline rate of five years term restoration used in the U.S., EU, and Japan. The remaining 0.25 is allocated on the basis of a given economy providing any exemptions, waivers, or similar carve-outs on the full and effective use of such a term of restoration, including for industrial policy purposes. This indicator does not include other forms of patent term restoration that are granted on the basis of prolonged examination periods, including for the granting of patents. This is a mixed indicator.

8. Membership of the Patent Prosecution Highway (PPH)

– This indicator measures whether an economy's relevant IP or patent office has joined

international efforts toward streamlining and improving patent prosecution by membership of a PPH. Given the three main tracks of international PPH (PPH, Global Patent Prosecution Highway, and IP5 Patent Prosecution Highway), economies will be scored differently depending on their level of participation and membership of the different tracks. Economies that are members of either (or both) the Global Patent Prosecution Highway or IP5 Patent Prosecution Highway will receive a full score of 1; economies that are members of the PPH or have bilateral and multilateral agreements to this effect will receive a score of 0.5.

9. Patent opposition – Measured by the availability of mechanisms for opposing patents in a manner that does not unduly delay the granting of a patent (in contrast to a right of opposition before the patent is granted) and that ensures fair, transparent, and expeditious opposition proceedings. This is a mixed indicator.

Category 2: Copyrights, Related Rights, and Limitations

The indicators in this category relate to copyright protection and related rights and limitations.

10. Copyright (and related rights) term of protection

– Measured by the baseline term of protection, which is the term afforded in the U.S. of 95 years. Terms of protection are measured as the minimum term allowed by copyright law. In instances in which there are different minimum terms of protection for different forms of copyright, all terms are added together and divided by 95. This is a numerical indicator.

11. Legal measures, which provide necessary exclusive rights that prevent infringement of copyrights and related rights (including Web hosting, streaming, and linking) – Measured by the extent to which economies (1) have in place laws and procedures that provide necessary exclusive rights; and (2) apply these laws to prevent, deter, and remedy online

infringement of copyright and related rights. This is a mixed indicator.

12. Expeditious injunctive-style relief and disabling of infringing content online – This indicator measures the existence and extent of an official national government administrative or judicial injunctive relief mechanism available to rights-holders. The mechanism should provide for the effective and timely disabling of access to websites that seem to exist solely to offer or make available infringing content online. Such a mechanism should be based on a clear, transparent, expeditious, and standardized procedure and include due process protections. This is a mixed indicator.

13. Availability of frameworks that promote cooperative action against online piracy – Measured by the existence of clear standards for the limitation of liability for copyright and related rights infringement by ISPs that expeditiously remove infringing material upon obtaining knowledge of it, in the context of an overall system that does not unduly burden ISPs, promotes cooperation between them and rights-holders to address online piracy, and respects and protects users' rights. This is a mixed indicator.

14. Scope of limitations and exceptions to copyrights and related rights – Measured by the extent to which exceptions and limitations are consistent in text and in application with the three-step test originating in the Berne Convention (Berne three-step test).²⁸ The score for this indicator is evenly divided between legislation and application in the court system. This is a mixed indicator.

15. Digital rights management legislation – Measured by the extent to which (1) economies have passed primary and/or secondary legislation relating to DRM and technological protection measures; and (2) this legislation is applied. This is a mixed indicator.

16. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed –

Measured by the extent to which (1) policies and guidelines stipulating the use of only licensed proprietary software are in place; and (2) these policies and guidelines are applied. This is a mixed indicator.

Category 3: Trademarks, Related Rights, and Limitations

The indicators in this category relate to trademark protection, design rights, and related rights and limitations.

17. Trademarks term of protection (renewal periods) – Measured by the renewal term of protection being offered, with the baseline term being 10 years as provided by the Singapore Treaty on the Law of Trademarks. This is a numerical indicator.

18. Protection of well-known marks – Measured by the extent to which existing laws and regulations and/or *de facto* practices allow for trademark protection through use of the mark, regardless of whether the trademark owner registers the mark. This is a mixed indicator.

19. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks – Measured by the extent to which economies (1) have in place laws and procedures that provide necessary causes of action to address violations of a trademark owner's rights (such as infringement of registered trademarks, unfair competition, false designation of origin, false advertising, dilution of famous trademarks, cybersquatting, and violation of rights associated with a corresponding trade dress), which create a likelihood of public confusion as to source, sponsorship, or affiliation; and (2) apply these laws to prevent, deter, and remedy infringement of trademarks and related rights. This is a mixed indicator.

20. Availability of frameworks that promote action against online sale of counterfeit goods – Measured by the existence of clear rules and standards for the

expeditious removal of trademark infringing material by online service providers upon obtaining knowledge of the infringement, in the context of an overall system that does not unduly burden such providers, promotes cooperation between them and rights-holders to address the infringement of trademark rights, and respects and protects consumers' rights. This score is evenly divided between the existence of relevant primary and/or secondary legislation and its application/enforcement. In the absence of a legal or regulatory framework, a score of up to 0.5 can be allocated based on the existence and effectiveness of voluntary industry standards and practices in place. This is a mixed indicator.²⁹

Category 4: Design Rights, Related Rights, and Limitations

The indicators in this category relate to design rights and related rights and limitations.

21. Industrial design term of protection – Measured by the maximum term of protection being offered (including renewable periods), with the baseline term being 25 years—the maximum term afforded in the EU. This is a numerical indicator.

22. Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights – Measured by the extent to which economies (1) have in place laws and procedures that provide necessary exclusive rights (including making, marketing, trading, and using an industrial design); and (2) apply these laws to prevent, deter, and remedy infringement of industrial design rights. This is a mixed indicator.

Category 5: Trade Secrets and the Protection of Confidential Information

The indicators in this category relate to trade secrets, related rights and limitations, and the protection of confidential information.

23. Protection of trade secrets (civil remedies) – Measured by (1) the existence of legislation that offers protection for trade secrets or confidential business information; and (2) the application of this legislation in the court or law enforcement system. This is a mixed indicator.

24. Protection of trade secrets (criminal sanctions) – Measured by (1) the existence of legislation that provides criminal sanctions for the misappropriation, improper acquisition, use, or disclosure of trade secrets or confidential business information; and (2) the application of this legislation and effective access to these remedies. This is a mixed indicator.

25. Regulatory data protection term – Measured by the optimal desired term, which is the term of exclusivity used by the EU for new biopharmaceutical products containing new active ingredients regardless of molecular size and/or complexity.³⁰ This is a numerical indicator.

Category 6: Commercialization of IP Assets and Market Access

The indicators in this category seek to measure the extent to which a given national IP environment recognizes the value of IP as an asset and encourages the commercialization of IP regardless of its national origins.

26. Barriers to market access – The extent to which laws and regulations or *de facto* practices make access to an economy's market contingent on the sharing and/or disclosure of intellectual property and the know-how with a local/domestic entity. This is measured by the extent to which (1) existing laws and procedures make market access contingent on the sharing/disclosure of intellectual property and know-how; and (2) the application of such laws or, in the absence of such laws, the existence of *de facto* practices and standards that achieve a similar effect. This is a mixed indicator.

27. Barriers to technology transfer – The extent to which laws and regulations or *de facto* practices act as barriers to technology transfer and commercialization activities of publicly funded and supported research. This is a mixed indicator.

28. Registration and disclosure requirements of licensing deals – The extent to which licensing agreements must be registered and/or disclosed with relevant authorities to carry legal effect. This is a mixed indicator.

29. Direct government intervention in setting licensing terms – The extent to which relevant government authorities directly intervene and set licensing terms between licensee and licensor.³¹ This can be done through, for example, governmental preapproval for any licensing agreement between two parties as well as government intervention in the setting of licensing terms, including royalty rates. This is a mixed indicator.

30. IP as an economic asset – The extent to which relevant institutions (including, for example, public and private institutions for higher education as well as national IP offices) in a given economy are actively engaged in capacity building and training on how to use IP as a commercial and economic asset. Examples of capacity building include academic (university/tertiary level) courses on the commercialization and use of IP as an economic and financial asset as well as the extent to which national IP offices host and/or engage in similar training programs. This is a mixed indicator.

31. Tax incentives for the creation of IP assets – The extent to which governments provide tax incentives for the creation and use of IP assets. This indicator consists of three layers corresponding to an equal share of the available score:

Layer 1 – consists of economies offering general tax incentives for the creation of IP assets through, for example, general R&D incentives and/or tax credits.

Layer 2 – consists of incentives that are targeted

specifically at the creation of IP through, for example, innovation and patent boxes.

Layer 3 – refers to the extent to which the above described incentives are not hampered by onerous localization and/or administrative requirements linked to the availability and use of the tax incentive or mechanism.

Category 7: Enforcement

The indicators in this category measure the prevalence of IP rights infringement, the criminal and civil legal procedures available to rights-holders, the authority of customs officials to carry out border controls and inspections, and the transparency of customs authorities' actions.

32. Physical counterfeiting rates – Measured by estimated rates of general trade-related physical counterfeiting using the U.S. Chamber's Global Measure of Physical Counterfeiting. This is a numerical indicator.

33. Software piracy rates – Measured by rates of software piracy. This is a numerical indicator.

34. Civil and procedural remedies – Measured by (1) the existence of civil and procedural remedies, including injunctions, damages for injuries, and destruction of infringing and counterfeit goods; and (2) the effective application of such remedies. This indicator also reflects administrative enforcement measures where applicable. This is a mixed indicator.

35. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement – This is a mixed indicator.

36. Criminal standards including minimum imprisonment and minimum fines – Measured by the extent to which (1) actual legislation is in place; and (2) it is applied (i.e., where reliable source material is available, the actual level of prosecution and penalties applied). This is a mixed indicator.

37. Effective border measures – Measured by the extent to which border guards have the *ex officio* authority to seize suspected counterfeit and pirated goods, including in-transit goods, without complaint from the rights-holder. This is a mixed indicator.

38. Transparency and public reporting by customs authorities of trade-related IP infringement – The extent to which customs authorities in a given economy publish statistics and data on trade-related IP infringement. This indicator measures (1) the extent to which data is published on a regular and systematic basis; and (2) the level of detail of this data. This is a mixed indicator.

Category 8: Systemic Efficiency

The indicators in this category seek to measure the manner in which a national IP system actually works.

39. Coordination of IP rights enforcement – This refers to the existence of coordinated efforts at IP rights enforcement at the national government level. This indicator measures the extent to which a national government institution or formalized structure is providing cross-governmental coordination to national IP enforcement efforts. This is a mixed indicator.

40. Consultation with stakeholders during IP policy formation – This indicator measures the extent to which stakeholders (public, private, national, and international) have the right and opportunity to contribute comments and submissions on proposed changes to IP laws and regulations made by a given economy's national government. This is a mixed indicator.

41. Educational campaigns and awareness raising – This indicator measures i) the extent to which national governments engage in educational campaigns and awareness raising on the positive socioeconomic impact of IP rights and the negative impact the infringement of these rights has on creators, innovators, and the national economy; and ii) the extent to which these campaigns

and awareness-raising efforts (if in place) are systematic and sustained. This is a mixed indicator.

42. Targeted incentives for the creation and use of IP assets for SMEs – This indicator measures the extent to which a given economy's national IP system provides to SMEs special incentives for the creation, registration, and use of IP assets. Examples of such incentives include fast-track registration procedures, reduced filing fees, and technical assistance targeting SMEs. This is a mixed indicator.

43. IP-intensive industries, national economic impact analysis – The extent to which the relevant authorities in a given economy seek to map and measure the economic impact and importance of IP-intensive industries to their national economies. Economies are scored on the basis of the following: (1) that the mapping and measuring of the economic impact and importance of IP-intensive industries to national economic activity are taking place; and (2) the extent to which such mapping and measuring are systematic and occurring on a periodic and recurring basis. This is a mixed indicator.

Category 9: Membership and Ratification of International Treaties

Generally, the indicators in this category are mixed and measure whether an economy (1) is a signatory of and (2) has ratified or acceded to international treaties on the protection of IP; some international treaties only allow for accession (i.e., membership is either conferred or it is not). The following treaties each make up one indicator, with some indicators consisting of two treaties:

44. WIPO Internet Treaties – These consist of the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. Respectively, they cover and clarify the use of copyright in a digital environment and the moral and economic rights of performers and producers of phonograms. This is a mixed indicator.

45. Singapore Treaty on the Law of Trademarks and Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks –

This is a mixed indicator with half of the score allocated for membership and ratification of each individual treaty.

46. Patent Law Treaty and Patent Cooperation

Treaty – This is a mixed indicator with half of the score allocated for membership and ratification of each individual treaty.

47. Membership of the International Convention for the Protection of New Varieties of Plants, act of 1991

– This is a binary indicator.

48. Membership of the Convention on Cybercrime, 2001 – This is a mixed indicator.

49. The Hague Agreement Concerning the International Registration of Industrial Designs – This is a mixed indicator.³²

50. At least one post-TRIPS FTA (or other types of bilateral or multilateral agreements) with substantive IP provisions and chapters in line with international best practices – This is a mixed indicator.

ENDNOTES

- 1 Note that the World Bank's geographic classifications have been somewhat amalgamated: Middle East and North Africa has been combined with Sub-Saharan Africa; and East Asia and Pacific has been combined with South Asia. See: World Bank (2019), "Country and Lending Groups."
- 2 USTR (2019), "Agreement Between the United States of America and the People's Republic of China," Fact Sheet, December 13, 2019, Washington D.C.
- 3 Ibid.
- 4 World Bank, World Development Indicators, databank; Industry (including construction), value added (% of GDP); Services, value added (% of GDP); Manufacturing, value added (% of GDP).
- 5 WIPO (2019), *Patent Cooperation Treaty Yearly Review 2019*, Geneva, Switzerland, p. 30.
- 6 World Bank data bank, World Development Indicators, Research and development expenditure (% of GDP), and Eurostat, "R&D Expenditure in the EU Increased Slightly to 2.07% of GDP in 2017," News Release, January 10, 2019.
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- 8 EPO & EUIPO (2019), *IPR-Intensive Industries and Economic Performance in the European Union*, pp. 89-90.
- 9 European Commission (2018), "Supplementary Protection Certificate for Medicinal Products: Frequently Asked Questions (FAQs)," May 31, 2018.
- 10 Vicente, V. and Simoes, S. (2014). "Manufacturing and export provisions: Impact on the competitiveness of European pharmaceutical manufacturers and on the creation of jobs in Europe", *Journal of Generic Medicines*, Vol. 11, Issue 1–2, pp.35–47.
- 11 J. A. Sussell et al. (2017), "Reconsidering the Economic Impact of the EU Manufacturing and Export Provisions," *Journal of Generic Medicines*, Vol. 13, Issue 2, pp. 73-89.
- 12 Professor Meir Pugatch, Dr. David Torstensson, and Ma'ayan Laufer (2017), *Unintended Consequences: How Introducing a Manufacturing and Export Exemption to Supplementary Protection Certificates Would Weaken Global Standards of IP Protection and Result in Direct Losses to Europe's Research-Based Biopharmaceutical Industry*, September 2017.
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- 14 European Commission, Directorate General for Trade (2019), "EU and Mercosur Reach Agreement on Trade," Press Release, June 28, 2019, Brussels, Belgium.

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- 17 C. Kilimiris (2019), “Greece: New Law Amends Rules Concerning Patent Licenses,” *Managing IP*, April 29, 2019.
- 18 ISAAA (2017), *Global Status of Commercialized Biotech/GM Crops in 2017: Biotech Crop Adoption Surges as Economic Benefits Accumulate in 22 Years*, International Service for the Acquisition of Agri-biotech Applications, Ithaca, New York.
- 19 Ibid.
- 20 B. Danaher et al. (2019), *The Effect of Piracy Website Blocking on Consumer Behavior*, published on SSRN.
- 21 Ibid.
- 22 J. Young (2019), “Global Ecommerce Sales to Reach Nearly \$3.46 Trillion in 2019,” *Digital Commerce 360*, November 13, 2019.
- 23 Many economies have a copyright term that is measured by the life of an author plus an additional number of years. Given the difficulties in measuring and estimating an average life of an author, and thus an average term of protection, this indicator uses only minimum terms, which are applied in lieu of the life of author plus an additional number of years (i.e., in cases in which the rights-holder is unknown or has already died). Accordingly, 95 years is the minimum term applied in U.S. law.
- 24 These difficulties of measuring piracy are particularly pronounced for online piracy. No comprehensive studies exist that measure and compare rates of online piracy for a large sample of economies. Therefore, the Index’s indicators for measuring piracy and counterfeiting are primarily based on physical piracy and counterfeiting, with the data from BSA being based on both physical and digital software piracy. Nevertheless, several academic and industry-supported studies measure rates of online piracy and its economic impact either on a global basis or for a few large economies. For example, a 2011 study commissioned by NBCUniversal and produced by Envisional found that 23% of global internet traffic was estimated to be infringing in nature. Similarly, a 2011 report by Frontier Economics estimated the total value of counterfeit and pirated products in 2008 and forecast for 2015 to be \$455 billion to \$650 billion and \$1,220 billion to \$1,770 billion, respectively. Out of this total amount, digitally pirated products were estimated at \$30 billion to \$75 billion in 2008 and forecast to be \$80 billion to \$240 billion in 2015. Furthermore, this report found that online piracy in the U.S. made up a large share of this digital piracy figure. For 2008, the report estimated that \$7 billion to \$20 billion worth of digitally pirated recorded music was consumed in the U.S., with an additional \$1.4 billion to \$2 billion of digitally pirated movies also consumed. Finally, the vast majority of academic papers and economic analyses have found that online piracy and file sharing has had a negative impact on media sales, including music. For details see: Envisional (2011), *Technical Report: An Estimate of Infringing Use of the Internet* (Cambridge 2011), p. 2; Frontier Economics (2011), *Estimating the Global Economic and Social Impacts of Counterfeiting and Piracy* (London 2011), pp. 56-58; and Smith, M.D. & Telang, R. (2012), *Assessing the Academic Literature Regarding the Impact of Media Piracy on Sales* (Social Science Research Network 2012).

- 25 OECD (2016), *Trade in Counterfeit and Pirated Goods*, pp.110-111.
- 26 International and best practices are defined here as those principles established in TRIPS Article 27: “Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.”
- 27 Act of 1991, International Convention for the Protection of New Varieties of Plants, Article 19, Duration of the Breeder’s Right
- 28 The Berne three-step test generally requires that limitations and exceptions to copyrights should be (1) confined to special cases; (2) which do not conflict with a normal exploitation of the work; and (3) do not unreasonably prejudice the legitimate interests of the rights holder (TRIPS Agreement, Article 13).
- 29 Examples of voluntary and industry-based standards include those standards and policies used in the U.S. and elsewhere by providers such as eBay. The latter has a system in place—the Verified Rights Owner Program—that allows rights-holders to protect their IP through a process of notification and takedown in which eBay is notified of the infringement and promptly removes the material from its website. Full details of the system are available at: <http://pages.ebay.com/vero/intro/index.html>.
- 30 Half (0.5) of the available score is based on the term available for biologics or large molecule compounds. If a country’s relevant legislation/regulation either *de jure* or *de facto* does not cover such compounds, then the maximum score that can be achieved in this indicator is 0.5. The baseline numerical term used is that by the EU: 10 years (8+2) of marketing exclusivity.
- 31 This indicator is not concerned with commercial litigation brought by private parties and settled by an independent judiciary.
- 32 The Hague Agreement Concerning the International Registration of Industrial Designs consists of several separate acts, specifically the Hague Agreement of 1960 (Hague Act) and the Geneva Act of 1999. The score for this indicator is evenly assessed between membership and accession to both treaties.



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