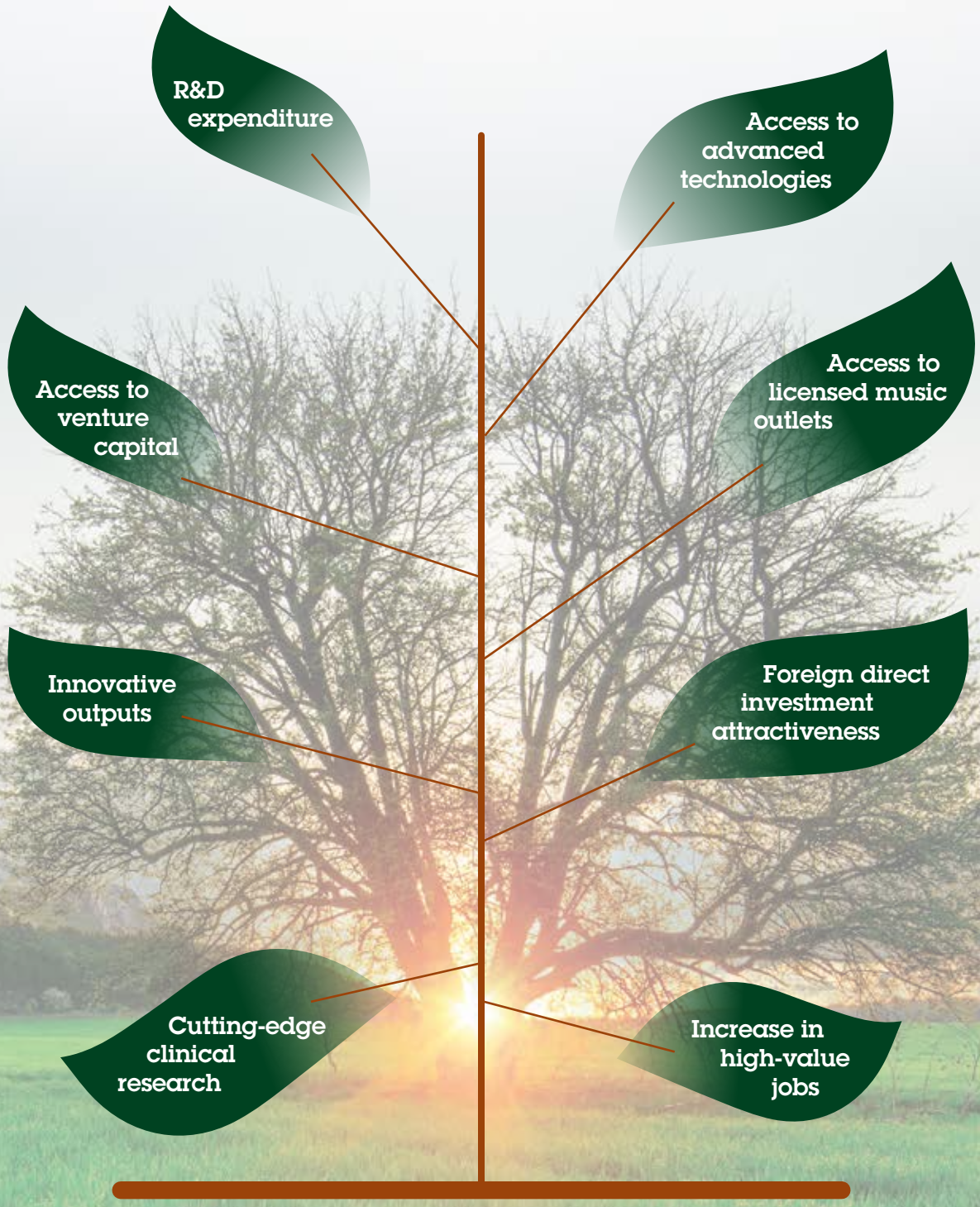


THE ROOTS OF INNOVATION

U.S. Chamber International IP Index | Fifth Edition | February 2017



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IP



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1. Foreword



Welcome to the fifth edition of the U.S. Chamber International IP Index, “The Roots of Innovation.” This year’s index recognizes the indispensable role of intellectual property (IP), in facilitating innovative and creative activity on a socially transformative scale.

Each economy in the Index presents a unique IP profile. As this Index has grown from 11 economies in its first edition to 45 in the current publication, it has become exceedingly clear that just as elections matter, so do IP policy choices. These choices are not simply a matter of East versus West, developed versus less-developed, or rich versus poor. Rather, the Index represents a broad spectrum of sovereign policy choices. Those choices have important consequences for each economy’s innovative and creative success, and for the collective welfare of all the world’s citizens.

In many ways, 2016 was a challenging year for global IP policy. New data revealed that the problem of global counterfeiting has more than doubled since 2008, amounting to \$461 billion annually. A strengthened global benchmark for IP standards was delayed by political opposition to the Trans-Pacific Partnership Agreement. Countries all around the globe—from the most established markets to fledgling new governments—grappled with the question of whether to move forward, innovating and evolving in a new era of globalization.

Nevertheless, the record of five editions of the Index clearly shows that countries of every region, size, and income level are increasingly investing in IP infrastructure as a tool for development, a stimulus for jobs and economic growth, and a catalyst for domestic innovation and creativity.

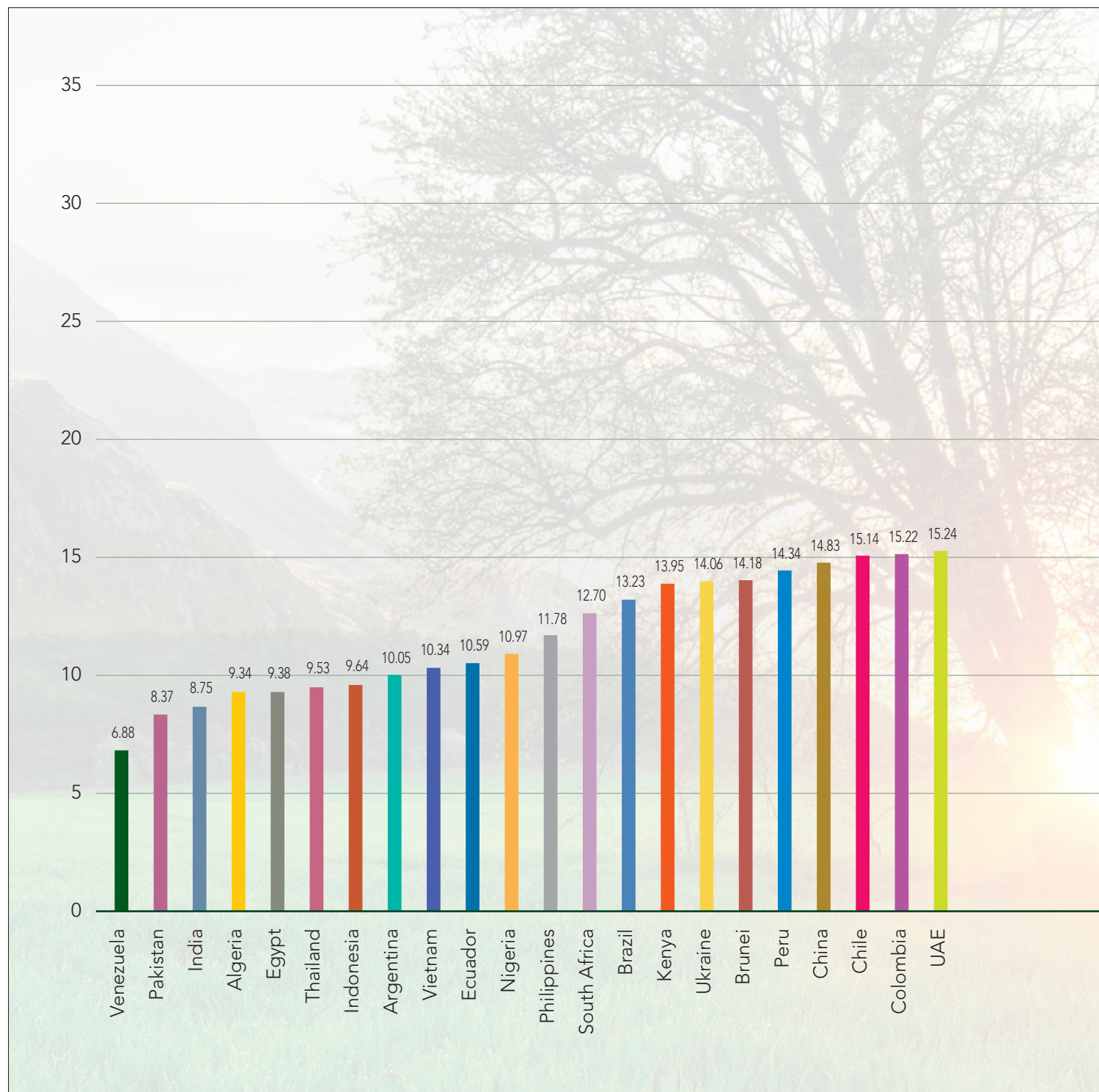
The roots are well-established—let seven billion flowers of innovation and creativity bloom.

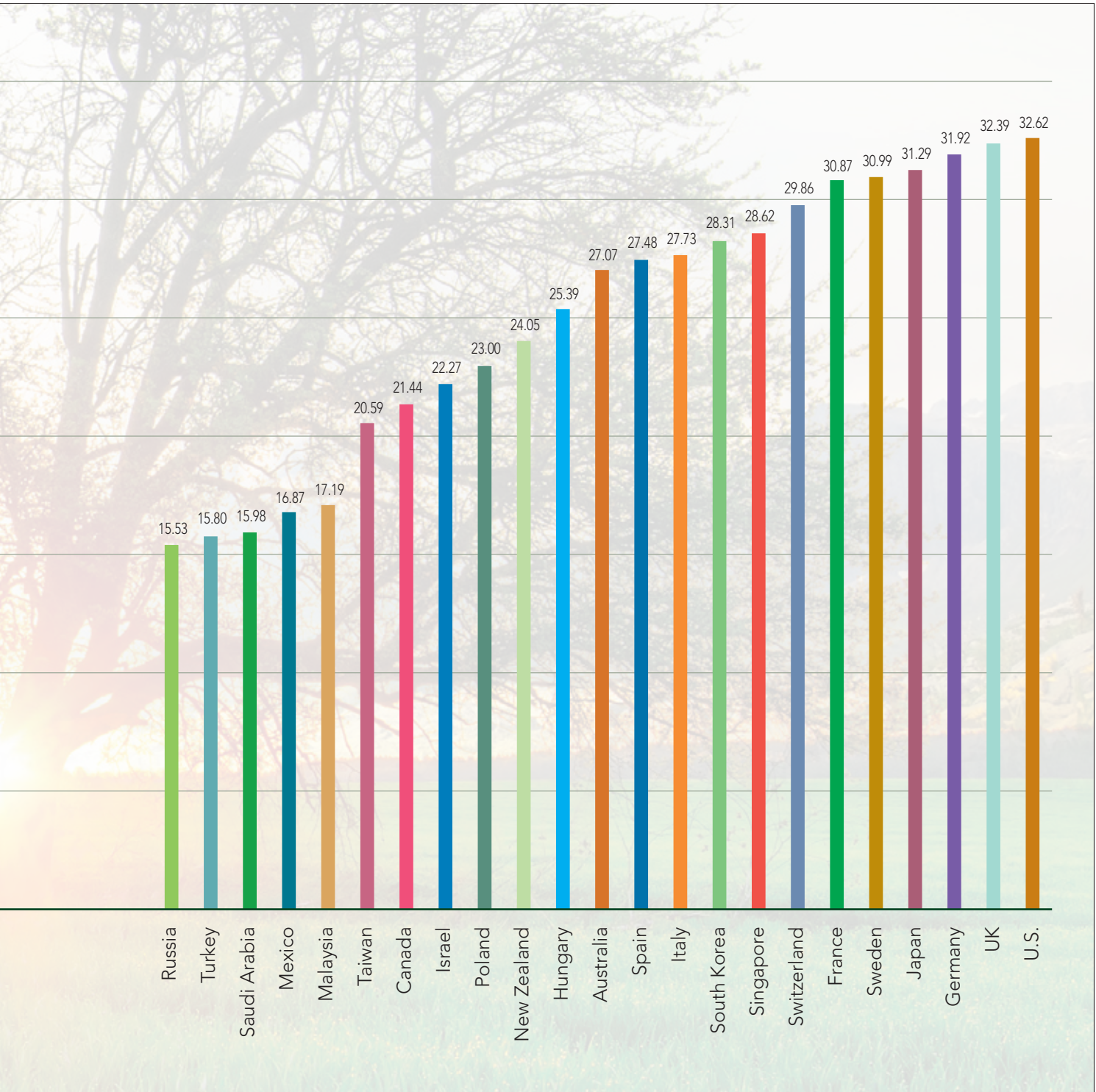
David Hirschmann
President and CEO
Global Intellectual Property Center
U.S. Chamber of Commerce

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2017 Overall Scores





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2. Executive Summary

The world's leading economies view intellectual property (IP) standards as essential to the success of any 21st century economy. IP provides the living and growing roots that stimulate innovation and bolster growth. And those with the strongest IP systems stand to reap the greatest economic rewards.

Over the past five years, the U.S. Chamber's International IP Index has provided a valuable tool by which to gauge the global IP environment. Now, the fifth edition of the Chamber's Index, "The Roots of Innovation," offers a roadmap for policymakers and thought leaders to enhance their competitiveness through stronger IP. It is a playbook for those looking to attract the world's best and brightest.

The 2017 Index benchmarks the IP standards in 45 global economies, representing roughly 90% of global GDP:

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



Economies are scored against 6 categories of IP protection: patents, copyrights, trademarks, trade secrets and market access, enforcement, and ratification of international treaties. The 2017 Index includes 5 new indicators to better capture an economy's overall IP environment in a continuously evolving digital age. Additionally, the fifth edition includes an analysis of the standards included in the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement and the final text of the Trans-Pacific Partnership (TPP) against the benchmarks included in the Index. This analysis illustrates the ways that trade agreements have progressively raised the bar for IP standards around the world in a 21st century global marketplace.

Key Findings

The 2017 Index reveals a number of IP trends that emerged over the past year. In a difficult global environment, countries continue to make a conscious policy decision to invest in stronger IP. Even countries that have historically viewed IP negatively are implementing nuanced changes to their IP systems. This illustrates the continued importance of IP investment for countries across all regions and levels of economic development. Positive IP developments highlighted in the Index include the following:

- A pack of global IP leaders emerged among the 2017 Index rankings, with the U.S., UK, Japan, and European Union (EU) economies ranked more closely together than ever. Notably, Japan's score increased by 10% since 2016 due to the ratification of TPP and accession to the treaties covered in the Index.

- A number of countries, ranging from China and Pakistan to the UAE and Sweden, introduced new enforcement mechanisms and specialized IP courts to better combat counterfeiting and piracy.
- Free trade agreements (FTAs), including the TPP and the Comprehensive Economic Trade Agreement (CETA), were signed in 2016, as well as a number of bilateral FTAs that helped raise the bar for protection of life sciences IP, copyrighted content online, and enforcement against IP theft.
- Multiple governments undertook a review of their IP laws, recognizing that such laws must keep pace with the emerging challenges IP owners face. In South Korea, amendments to the Patent Law helped streamline and expedite the patent examination process. Likewise, the government of Taiwan began a review of its IP laws, in an effort to better comply with the standards included in the TPP.
- Economies recognized the value of leveraging international partnerships through Patent Prosecution Highways (PPH). Countries that signed PPH agreements in 2016 include Argentina, Chile, Colombia, Mexico, Peru, the Philippines, and Vietnam.

Despite these positive developments, some countries took steps to restrict IP rights in 2016:

- Ecuador, Russia, and South Africa introduced new requirements for local production, procurement, and manufacturing.

THE ROOTS OF INNOVATION



- While the Indian government issued the National Intellectual Property Rights Policy in 2016, IP-intensive industries continued to face challenges in the Indian market with regard to the scope of patentability for computer-implemented inventions, Section 3(d) of the Indian Patent Act, and the recent High Court of Delhi decision regarding photocopying copyrighted content.
- A number of governments attempted to limit the scope of patentability via both judicial decisions and legislation. While the Canadian government continued to apply the heightened patent utility standard, the Indonesian Patent Law introduced a heightened efficacy requirement for patentability and outlawed second use claims.
- Both individual governments and representatives of the multilateral institutions encouraged public officials to utilize compulsory licenses and expanded exceptions and limitations in the name of increasing access. In Colombia, the government threatened to use a compulsory license in an attempt to drive down the price of innovative medicine, while in South Africa draft copyright amendments proposed the introduction of a fair use system.

Conclusion

In a changing global landscape, IP standards serve as the lasting, vibrant roots of innovation that will enable us to solve the world's problems and meet future challenges. They are the standards that governments can bank on and that will allow industries to bloom.



Contents

1. Foreword	I
2. Executive Summary	IV
3. Overview of the International IP Index Fifth Edition	3
4. An Innovation Life-Cycle Perspective of the Benefits of IP Rights: From Laboratory to Market	7
5. Assessing International Benchmarks and Standards Relative to the Index	12
5.1 Benchmarking the TRIPS and TPP treaties against the Index.....	12
5.2 TRIPS from the perspective of the Index	12
5.3 TPP from the perspective of the Index	12
6. Global IP Policy in 2017 – Heading in Different Directions	14
6.1 Overall results	18
7. Economy Overviews	25
Algeria	26
Argentina.....	28
Australia.....	30
Brazil	32
Brunei.....	34
Canada	36
Chile.....	38
China.....	40
Colombia.....	43
Ecuador	45
Egypt.....	47
France	49
Germany	51
Hungary	53
India	55
Indonesia	57
Israel.....	59
Italy.....	61
Japan	63
Kenya	65
Malaysia	67
Mexico	69
New Zealand.....	71

THE ROOTS OF INNOVATION



Nigeria	73
Pakistan.....	75
Peru	77
Philippines	79
Poland.....	81
Russia	83
Saudi Arabia	85
Singapore	87
South Africa.....	89
South Korea.....	91
Spain	93
Sweden.....	95
Switzerland	97
Taiwan	99
Thailand.....	101
Turkey.....	103
Ukraine.....	105
United Arab Emirates	107
United Kingdom	109
United States.....	111
Venezuela	113
Vietnam.....	115
Annex: Category Scores, Methodology, Sources, and Indicators Explained	117
Endnotes.....	135
Tables and Figures	
Table 1: Fifth Edition Index Economies by World Bank Region.....	3
Table 2: Fifth Edition Index Economies by World Bank Income Group	4
Table 3: New Indicators Added in 2017	5
Table 4: Economic Benefits of Improving IP Protection: Findings from 21 Correlations	10
Figure 1: The Innovation and Creativity Life-Cycle	8
Figure 2: Approximating TRIPS on the Index	14
Figure 3: Approximating TRIPS and TPP on the Index.....	16
Figure 4: 2017 Overall Scores	19



3. Overview of the International IP Index Fifth Edition

Now in its fifth edition, the U.S. Chamber’s International IP Index continues to provide an important industry perspective on the IP standards that influence both long- and short-term business and investment decisions. The Index is a unique and continuously evolving instrument. Not only does it assess the state of the international IP environment, it also provides a clear roadmap for any economy that wishes to be competitive in the 21st century knowledge-based global economy. Large, small, developing, or developed—economies from across the world can use the insights about their own national IP environments as well as that of their neighbors and international competitors to improve their own performance and better compete at the highest levels for global investment, talent, and growth.

What’s new in the fifth edition? More economies included

The Index continues to grow and now covers 45 economies. Together, these economies represent both a geographical cross-section of the world and close to 90% of global economic output calculated on a current basis per the World Bank.ⁱ

The new economies included in the fifth edition of the Index are Egypt, Hungary, Kenya, Pakistan, the Philippines, Saudi Arabia, and Spain.

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

Table 1: Fifth Edition Index Economies by World Bank Regionⁱⁱⁱ

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

Source: World Bank (2016)

THE ROOTS OF INNOVATION



In addition to geographic diversity, the Index also contains economies from a broad spectrum of income groups as defined by the World Bank. Table 2 provides

an overview of all 45 economies sampled in the fifth edition of the Index according to income group as defined by the World Bank.

Table 2: Fifth Edition Index Economies by World Bank Income Group^{iv}

Lower-Middle-Income Economies	Upper-Middle-Income Economies	High-Income Economies	High-Income OECD Members
Egypt	Algeria	Brunei	Australia
India	Argentina	Saudi Arabia	Canada
Indonesia	Brazil	Singapore	Chile
Kenya	China	Taiwan	France
Nigeria	Colombia	UAE	Germany
Pakistan	Ecuador	Venezuela	Hungary
Philippines	Malaysia		Israel
Ukraine	Mexico		Italy
Vietnam	Peru		Japan
	Russia		New Zealand
	South Africa		Poland
	Thailand		South Korea
	Turkey		Spain
	Venezuela		Sweden
			Switzerland
			UK
			U.S.

Source: World Bank (2016)



Five new indicators

A significant new feature of the fifth edition of the Index is the addition of five new indicators bringing the total number of indicators included in the Index to 35. Consequently, the maximum possible score on the Index has also increased from 30 to 35.

These indicators include new areas of IP, such as design rights, as well as growing areas of concern to rights-holders including patent opposition proceedings and barriers to licensing agreements. Below Table 3 provides an overview of the five new indicators and the Index categories to which they have been added.

Table 3: New Indicators Added in 2017

Index Category	New Indicator
Category 1: Patents, Related Rights, and Limitations	Patent opposition
Category 3: Trademarks, Related Rights, and Limitations	Industrial designs term of protection Legal measures available that provide necessary exclusive rights to redress unauthorized use of industrial design rights
Category 4: Trade Secrets & Market Access	Regulatory and administrative barriers to the commercialization of IP assets
Category 5: Enforcement	Transparency and public reporting by customs authorities of trade-related IP infringement

The new indicators are defined and described in full in the Methodology section included in the Annex at the back of this report. Below is a summary overview of each new indicator and what they seek to measure.

The first indicator added relates to patent opposition proceedings. Specifically, the indicator measures the availability of mechanisms for opposing patents in a manner that does not delay the granting of a patent (in contrast to a right of opposition before the patent is granted) and ensures fair and transparent opposition proceedings.

The second and third new indicators are from a new area of IP covered in the Index: industrial design rights. 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.

THE ROOTS OF INNOVATION



The fourth new indicator relates to the actual commercialization and use of IP assets. This indicator seeks to measure the extent to which regulatory or administrative mechanisms allow IP owners the “freedom to operate” as part of their commercialization and exploitation activities. This freedom includes the avoidance of barriers or undue burdens on interacting parties such as “blanket” requirements for forced disclosure of technologies without the consent of the IP owner, governmental preapproval for any licensing agreement between parties, predetermined licensing terms, restrictions on commercializing IP by publicly funded research bodies, and discriminatory conditions affecting the licensing of technologies by foreign IP owners.

The final added indicator relates to border measures. Specifically, this indicator seeks to measure the extent to which customs authorities in a given economy publish statistics and data on trade-related IP infringement. This indicator measures both the extent to which data are published on a regular and systematic basis and the level of detail of these data.



4. An Innovation Life-Cycle Perspective of the Benefits of IP Rights: From Laboratory to Market

The debate on intellectual property (IP) rights and their impact on innovation, access to technologies and economic growth raged on in 2016, with developments underscoring ongoing skepticism at both the multilateral and national levels regarding the utility of IP rights and a persistent view that IP protection amounts to a tax on access to innovation. A United Nations High-Level Panel on Access to Medicines report that encouraged broad use of TRIPS “flexibilities” to work around IP rights was but one high-profile example. The fifth edition of the U.S. Chamber International IP Index (“the Index”) highlights a number of other developments in different economies, including a narrowing of patentability criteria, use of compulsory licensing, and erosion of IP enforcement, that promote the limiting of IP rights as a means to encourage local economic activity and increase access to technologies.

Yet the empirical evidence on the impact of IP rights on economic activity continues to suggest that such views are misguided. The most up-to-date data on the benefits of IP protection reveals that IP is, in fact, a critical instrument for countries seeking to enhance access to innovation, grow domestic innovative output, and enjoy the dynamic growth benefits of an innovative economy. Conversely, weak IP protection stymies long-term strategic aspirations for innovation and development. The past three editions of the Index have included a dedicated section that explores the relationship between national IP environments and the development of innovative and competitive economies by comparing the Index scores with a wide range of economic variables using correlations analysis (statistical measures of the likelihood of two elements

occurring together). This edition’s Annex expands on the data and discussion included in the fifth edition report as well as previous editions of the Index to provide a fuller picture of the relationship between IP rights and a wide range of socioeconomic benefits.

Taken together, the 21 correlations included in this Annex present a clear picture: IP protection goes hand in hand with the aspirations topping government agendas around the world. As Table 1 suggests, a robust national IP environment correlates strongly (having a strength of 0.6 or above) with a wide range of macroeconomic indicators that fall under the umbrella of innovation and creativity – the very same indicators that are found in national strategies for economic development of many economies today. This message has only become stronger over the past 3 editions of the Index: adding several new variables each year and expanding the sample size by 50% (from 30 to 45 economies), the strength of the relationship between IP rights and crucial economic activities has grown.

This edition of the Annex amplifies these findings about the benefits of IP protection by examining the correlations (both those from the previous editions plus new correlations) from the perspective of an “innovation and creativity life-cycle”. This is because maximizing the benefits of IP rights is not just about understanding the outcomes they help to generate but also how they do so. Effective innovation strategies comprise policies that account for not only the end objectives but also the path that leads to these outcomes, the way in which innovation and creativity occur, and the necessary enabling factors.

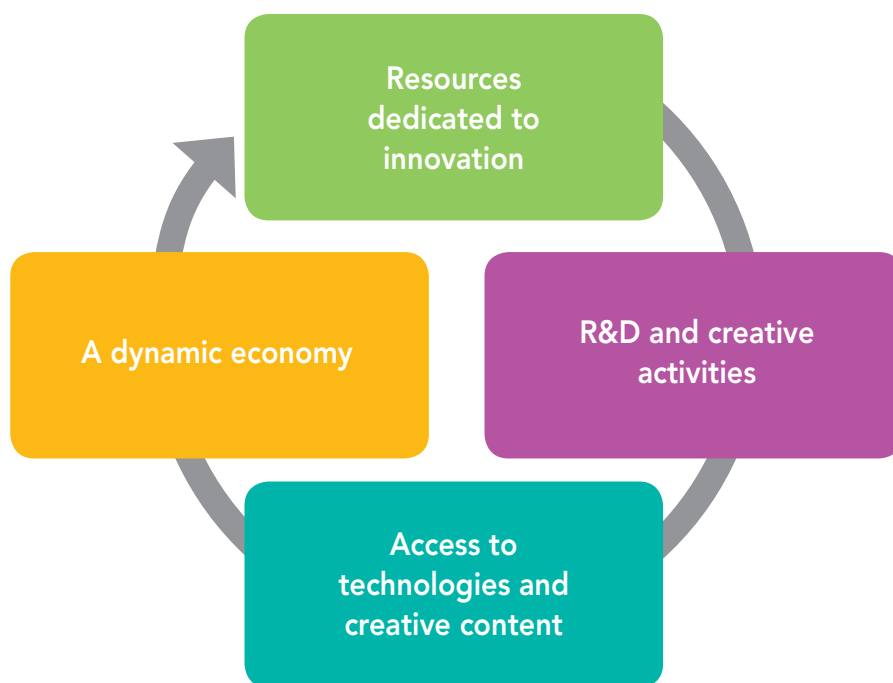
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For example, IP rights display a strong relationship with the growth of knowledge-intensive jobs (0.72) and the development of competitive local high-tech sectors (0.80). But the correlations also reveal that IP drives the research, partnerships, and technology

development that support these sectors. In fact, the correlations shows that IP plays a role in facilitating many of the necessary “inputs” to the knowledge-based economy. On this basis the correlations are divided into four themes or phases of the innovation and creativity life-cycle (as illustrated in Figure 1):

Figure 1: The Innovation and Creativity Life-Cycle



Source: Pugatch Consilium

1) Resources dedicated to innovation: The correlations in this theme show that IP protection is a key enabling factor of R&D, working in tandem with other factors such as financing (including spending directed to R&D and a vibrant venture capital and private equity

market), human capital (like researchers and technicians), and technological infrastructure. Economies that provide a robust IP environment are also more likely to embrace policies that create a complete innovation “ecosystem” by investing in other key building blocks.



2) R&D and creative activities: The correlations in this theme indicate that IP rights are linked to actual innovation—to discovery, development, and production of new technologies and creative works. Economies that exhibit a steady buzz of innovation and creativity are, with few exceptions, those that have put in place strong IP environments—both generally and for specific high-tech sectors. The opposite is also true: on the whole, those economies with relatively weaker IP environments do not tend to experience the levels of R&D and release of new content that economies with more secure and stable IP environments do.

3) Access to technologies and creative content: Economies with strong IP protection are also those that tend to successfully commercialize R&D and enable distribution and sale of resulting products and services. The correlations in this theme suggest that IP protection displays a strong relationship with greater access to end products and services that make novel technologies and content available to consumers. The correlations support the economic notion that IP is an important platform driving and enabling innovative entities to actually develop new technologies into valuable and useful products and make them broadly available to an economy's customers.

4) A dynamic economy: The final theme captures the endgame – the socioeconomic impact of innovation and creativity in terms of ability to address critical global challenges, ensure a reliable stream of investment,

create high-value jobs, and raise income and productivity. Here, as in the other themes, IP is strongly related to measures of foreign direct investment (FDI), business and industrial growth, jobs, and gross domestic product (GDP), ultimately providing the basis for re-investment of resources as the virtuous cycle begins anew.

The correlations within each theme examine the impact of IP on the overall economy as well as for specific IP-related sectors, including the biomedical, information and communications technology (ICT), and creative content sectors. This not only allows for a clear picture of the wider socioeconomic benefits of a supportive IP environment overall but also illustrates the advantages for key high-tech sectors when specific rights important for a given sector are provided.

Table 4 presents the main findings of the analysis in this Annex.

THE ROOTS OF INNOVATION



Table 4: Economic Benefits of Improving IP Protection: Findings from 21 Correlations

Macroeconomic Indicator Correlated to IP Rights	Correlation Strength	Economies with Robust IP Protection (scoring above the median level of the Index) on Average Tend to Experience the Following Benefits Compared to Economies Scoring below the Median Level
Resources dedicated to innovation		
Human capital	0.82	Over 6 times more R&D-focused personnel
R&D expenditure	0.70	Over 40% more likely to secure private investment in R&D
Access to venture capital (VC)	0.77	45% more likely to attract VC and private equity (PE) funds
R&D and creative activities		
Innovation output	0.88	80% more knowledge-based, technological, and creative outputs
Inventive activity	0.75	140 triadic patent applications per million population (versus an average rate of only 3)
Biotechnological innovation	0.77	Much more likely to provide environments that are conducive to biotech innovation
Development of biologic therapies	0.70	Host nearly 15 times more clinical trials on innovative biologic drugs
Cutting-edge clinical research	0.73	Attract more than 20 times the number of early-phase clinical trials
Creative outputs	0.86	75% more likely to have larger and more dynamic content and media sectors
Online creativity	0.85	More than 4 times the amount of online creativity
Access to technologies and creative content		
Access to advanced technologies	0.83	30% more likely to benefit from access to the most recent technologies
Access to licensed music outlets	0.78	Greater access to new, licensed music content with a wider array of choice and over secure platforms
Greater consumption of new audiovisual content	0.73	Likely to see at least 3.5 times more theater screenings of feature films, and generate more tax revenue from ticket sales



Table 4: Economic Benefits of Improving IP Protection: Findings from 21 Correlations *(continued)*

Wider and more convenient access to video content	0.61	More than double the level of advanced and easy-access home entertainment
The dynamic economy		
Growth of high-tech sectors	0.80	Production of up to 82% more knowledge and technology outputs
Overall business environment	0.80	68% more likely to have a supportive business climate
Foreign direct investment-attractiveness	0.78	Nearly 50% more attractive to foreign investors
Biomedical foreign direct investment	0.67	15 times more investment in the life sciences
Increase in high-value jobs	0.72	Nearly double the workforce concentrated in knowledge-intensive sectors
Growth of knowledge-based economies	0.82	40% greater capacity to generate positive value from ICT, such as through job creation, access to public and private services, and creation and use of ICT-based technologies
Added value of properly licensed software	0.85	As much as 10 times greater positive impact on GDP of strong ICT-related IP



5. Assessing International Benchmarks and Standards Relative to the Index

5.1 Benchmarking the TRIPS and TPP treaties against the Index

How do existing international IP standards compare to the industry standard represented by the Index?

History shows that trade agreements have progressively raised the bar for IP standards around the world. For their significance to political and policy debates, the two most influential agreements of this kind are the 20-plus-year-old World Trade Organization (WTO) TRIPS Agreement, and the Trans-Pacific Partnership or TPP Agreement.

The purpose of this section is to approximate the strength of these treaties relative to the Index. The discussion is not intended to provide a definitive score of either the TRIPS or TPP treaty—for reasons discussed below, methodological challenges make such conclusions difficult. Despite these difficulties, it is useful to assess how the provisions of these two treaties compare to the 35 indicators included in the Index and to calculate an approximate Index score. This exercise contributes to an enhanced understanding of what aspects of a modern 21st century IP standard these treaties cover.

5.2 TRIPS from the perspective of the Index

When signed in 1994 as an annex to the Final Act establishing the WTO, the TRIPS Agreement was considered by many to be the most comprehensive and ambitious agreement ever reached in the IP

domain.⁹ TRIPS aimed to harmonize the global protection of IP rights by establishing a minimum standard for IP frameworks along with provisions on dispute settlements and enforcement to make it effective. Representing an unprecedented commitment to minimum global IP standards, TRIPS has stood as a clear benchmark for over 20 years.

For these reasons, we believe the provisions included in TRIPS represent a floor—rather than a ceiling—for IP protection. The TRIPS Agreement largely predates globalization and the technological revolution that has allowed complex flows of information, capital, and talents to move virtually seamlessly around the globe. Twenty years on, it is thus instructive to compare TRIPS to the Index, as a modern-day standard, on two levels:

- First, with respect to the extent to which TRIPS is “missing” a number of IP rights—given its age, it is understandable that the treaty does not contain a number of the latest iterations of IP rights that a modern, knowledge-based economy relies on; and
- Second, with regard to the fact that many economies have not yet implemented key aspects and IP rights of the treaty.

Today, the TRIPS Agreement is ratified by 164 economies and represents the only enforceable global IP standard, but how does it measure up when considering the state of play of technology and the global economy? How does it compare to the standards identified in the Index?



To generate an Index approximation for TRIPS, imagine that the TRIPS Agreement is the IP law in force in a given economy and that the economy has implemented the principles and rules in TRIPS in line with current standards of interpretation in place in the most established IP jurisdictions worldwide. In that light, all of the provisions in TRIPS that may be considered equivalent to the 35 indicators in the Index may be isolated and translated into scores. However, as mentioned, certain indicators from the Index are inherently not applicable or possible to examine. These include numerical indicators such as rates of physical counterfeiting and piracy as well as membership in treaties that were introduced after the TRIPS Agreement entered into force.

Leaving these indicators aside, it is possible to compare the remaining 29 Index indicators to TRIPS provisions. In doing so, it is clear that some provisions in TRIPS are fully equivalent to the Index indicators, whereas others only partially address the Index criteria. For example, the term of industrial design protection (indicator 20) outlined in Article 26 of TRIPS is “at least 10 years”; in light of the Index’s benchmark of 25 years (based on the maximum term of protection afforded in the EU), the score for TRIPS for this indicator would be 0.4 out of a possible score of 1. Looking at a more substantive indicator—for example, indicator 2 on patentability criteria—sets forth three substantive criteria: novelty, inventiveness, and industrial applicability. Assuming prevailing standards of interpretation of this article in the biggest and most established patent offices in the world—such as the European Patent Office (EPO), Japan Patent Office (JPO), and U.S. Patent and Trademark Office (USPTO)—TRIPS receives a full point for indicator 2. In contrast, in relation to indicator 10 on legal measures providing necessary exclusive rights to prevent

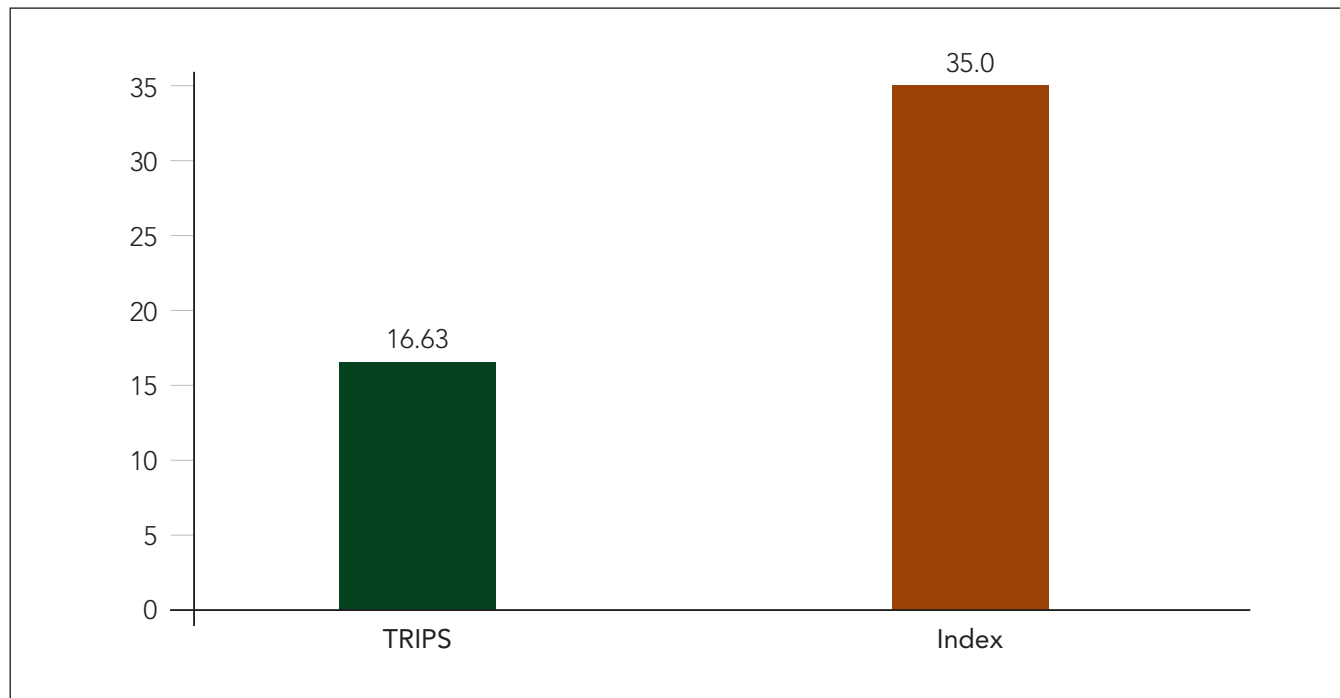
copyright infringement online, TRIPS Articles 9 and 14 provide for basic exclusive rights for copyright holders such as right of reproduction and public performance; they do not specifically address the digital sphere and so cannot be equated to a full point on the Index.

Translating TRIPS provisions into scores for the remaining relevant Index indicators, the TRIPS Agreement ultimately receives an overall Index score of 16.63.^{vi} This score represents less than 50% of the total Index benchmark and, even when removing nonapplicable indicators, just about 50% of the Index standard. It is striking that despite establishing an important level of IP protection globally, TRIPS standards still represent a rather low bar of national IP protection worldwide, especially when considering the technological developments and economic realities faced today, 20 years since its introduction. To compete today, economies need to look beyond TRIPS to higher IP standards as roadmaps for enhancing innovation and economic growth.

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Figure 2: Approximating TRIPS on the Index



5.3 TPP from the perspective of the Index

In similar fashion, it is instructive to assess the Index against a more recent standard, the TPP agreement, which was signed just under 22 years after the TRIPS agreement. Innovation-driven and intimately interlinked, the economic relationships between nation-states today are fundamentally different than they were in the mid-1990s. Dramatic changes in technology and the structure of the global economy mean that future trade agreements should be more comprehensive and detailed than preceding multilateral trade agreements. A great deal of opportunity continues to exist in the IP space and with regards to the IP standards established in the TPP.

Breaking down the TPP

Similar to the exercise carried out in the preceding subsection on TRIPS, the first step in comparing the Index to the TPP is to compare the individual components of the TPP (the articles) with the 35 indicators that together constitute the Index. Through this comparison, it is possible to isolate specific articles as points of comparison to Index indicators.

As with the TRIPS treaty, a number of indicators from the Index are simply not applicable and are therefore not used within this comparison. These indicators include, for example, rates of physical counterfeiting and estimated rates of software piracy, which are not part of the remit of the TPP and thus cannot form a point of comparison.



Compared with the TRIPS analysis, the TPP has a very high number of corresponding and equivalent standards as captured in the Index's 35 indicators. For example, indicator 30 in the Index relates to border measures. Specifically, this indicator is "measured by the extent to which goods in transit suspected of infringement may be detained or suspended. This indicator also measures the extent to which border guards have the *ex officio* authority to seize suspected counterfeit and pirated goods without complaint from the rights holder." In essence, this indicator measures the existence of two things: i) the existence of *ex officio* authority for customs officials with regard to suspected IP-infringing goods; and ii) the extent to which goods in transit suspected of infringement may be detained or suspended. The equivalent provision in the TPP Agreement is Article 18.76 of the IP chapter.^{vii}

Paragraph 5 of this article states the following:

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 addition to this paragraph, four relevant footnotes (119, 120, 121, and 122) offer further explanation of what the paragraph means.^{viii}

Similarly, the text of Article 18.80 relating to the government's use of licensed software, is largely equivalent to indicator 14 of the Index. The TPP article states: "Each Party shall adopt or maintain appropriate laws, regulations, policies, orders, government-issued

guidelines, or administrative or executive decrees that provide that its central government agencies use only non-infringing computer software protected by copyright and related rights, and, if applicable, only use that computer software in a manner authorised by the relevant licence." This is, for all intents and purposes, equivalent to the wording of indicator 14: "implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed software."

In other areas, the TPP is not equivalent to the Index. For example, on the issue of regulatory data protection (indicator 7), the Index uses the benchmark term of protection of 8+2 (10) years of data and market exclusivity protection used in the EU for small- and large-molecule products. Conversely, Article 18.5 of the TPP provides two different terms of protection depending on the size of the molecule. A 5-year term of protection is provided for small-molecule products and a term of 8 years is provided for large-molecule (biologic) products.

Summing up

In translating the remaining TPP provisions into scores for the relevant Index indicators, the TPP Agreement receives an overall Index score of 25.39.^{ix} This score represents just under three-quarters (73%) of the total Index benchmark, illustrating how the TPP builds upon the provisions of the TRIPS agreement.

Yet strong as the TPP is, a number of standards are missing or lacking. As mentioned above, the term of protection for regulatory data protection (RDP) is below the benchmark term used by the Index. For large-molecule products, the TPP is also below that of economies such as the U.S., which has a term of protection of 12 years for biologics. Gaps also exist

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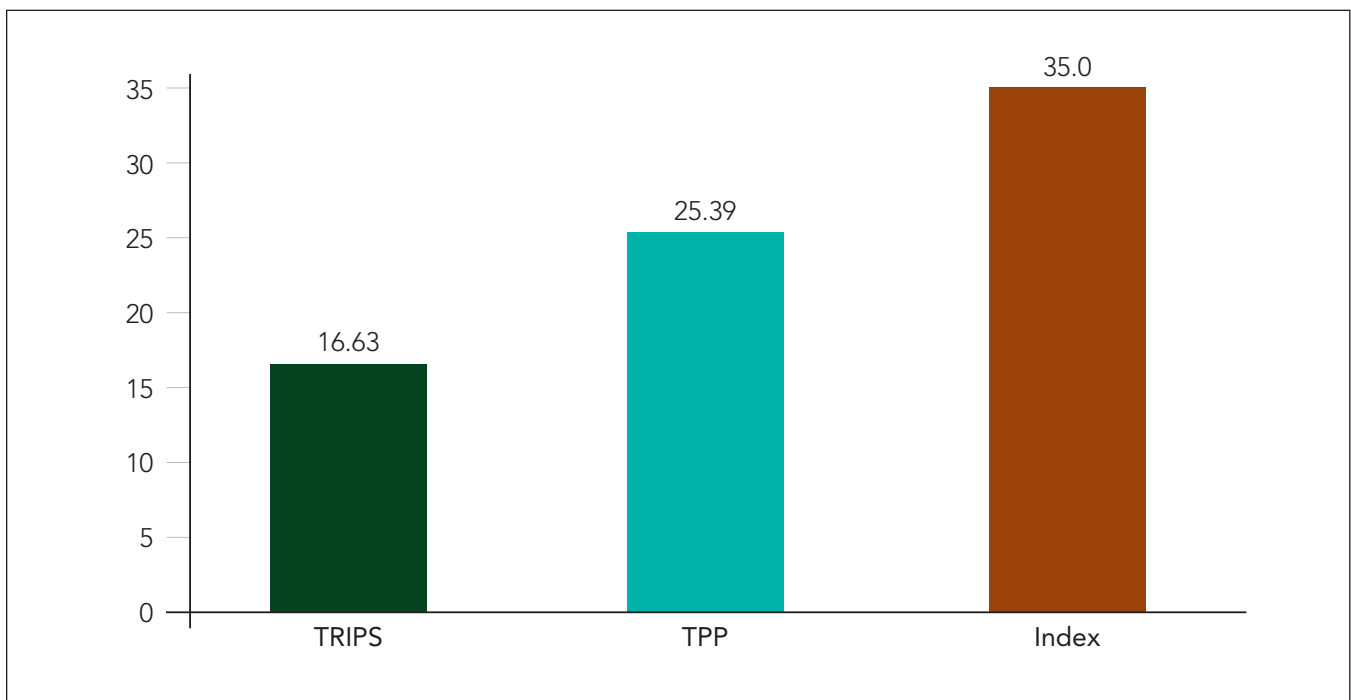


with regard to the placement of localization and licensing barriers. These barriers are not addressed at all in the IP chapter of the TPP, and localization as such is only tangentially addressed in the TPP's Trade and Services section (chapter 10) and Technical Barriers to Trade (chapter 8).

Figure 3 compares the TRIPS, TPP, and Index.

Looking at the three standards side by side, it is clear that international standards for the protection of IP remain a work in progress. TRIPS provided an essential foundation for global IP rules. The TPP built upon those standards, but opportunities remain to further

Figure 3: Approximating TRIPS and TPP on the Index



improve the IP provisions in future trade agreements. Judging by the top performers in this year's Index—the U.S., the vast majority of EU member states, and developed economies included in the fifth edition

of the Index, barring Canada and New Zealand, all exceed the total TPP score—the most innovative and competitive economies in the world have IP standards that substantially exceed even that of the TPP.



6. Global IP Policy in 2017 – Heading in Different Directions

Trade

From a purely IP policy perspective, the biggest developments and pendulum swing from near certainty to uncertainty occurred in the area of trade, where two potentially groundbreaking treaties were finally signed after years of negotiations: the Trans-Pacific Partnership and the EU-Canada Comprehensive Economic and Trade Agreement.

The CETA agreement provides the promise of finally bringing much of Canada’s national IP environment into the modern era and aligned with international best practices and other developed OECD economies. Yet here too uncertainty exists over the future of the treaty. Only last-minute renegotiations and concessions to the small Belgian province of Wallonia allowed for the signing of the agreement in October 2016.

Anxiety over globalization and free trade deals are not new; in fact, it has affected most major modern trade negotiations. Similarly, debates dating back to the 1800s over the role of IP rights and social tradeoff between the exclusive rights of an inventor or creator and the good of society at large were reignited in 2016:

- Is the granting of IP rights a social good?
- In a 21st-century society where information flows freely do these ancient notions of property rights actually stimulate innovation and creativity?
- Is there not a better way?

Multilateralism

Questions like these have been posed for all major forms of IP rights, but perhaps they have been most pronounced recently in the area of access to medicines. Specifically, in September 2016, the UN High-Level Panel on Access to Medicines released its final report and recommendations, based on a premise that IP rights are inimical to human rights. Unfortunately, the panel’s mandate and thus the resulting report had a narrow, misguided focus on perceived inconsistencies between IP rights and access to medicines as opposed to the wider political, health infrastructure, and socioeconomic factors that are the true access barriers to medicines. The panel also failed to fundamentally recognize how long-term medical and biopharmaceutical innovation depends on the existence of IP rights. In the words of a World Intellectual Property Organization representative who intervened at a hearing for the High-Level Panel, “without productive innovation, there is nothing to have access to.”^x

Indeed, one of the major trends that stands out from this year’s edition of the Index is how despite efforts like the TPP and CETA, many economies are embracing policies that challenge or curtail IP rights. From the intensification of localization policies; to curtailing patentability; to actively encouraging the use of compulsory licenses, parallel importation, and the overriding of registered IP rights as a basis for budgetary policy and cost containment; to restricting renewable periods for registered trademarks—many economies are embarking on policy reforms that severely restrict the ability of rights holders to protect

THE ROOTS OF INNOVATION



and profit from their work and creations. Not all of the 45 economies included in the Index are embracing these policies. And, in many cases, economies may in one policy area embrace restrictions while other arms of government may engage fully in multilateral efforts to better exploit IP as an asset. Nevertheless, it is notable that the share of economies launching negative policies is growing.

Yet in so doing, these economies are ignoring what is perhaps the most important lesson from not only the research presented in this edition of the Index and the accompanying Statistical Annex, but the cumulative knowledge from all five editions of the Index and related work: the world's most competitive and most innovative economies are also those in which the protection of IP is not viewed as a necessary evil but, instead, as a fundamental building block for a prosperous, modern, knowledge-driven economy.

6.1 Overall results

What is perhaps most striking about the overall results of the fifth edition of the Index is the extensive—and often substantial—movement of economies up and down the overall standings and within the six categories of the Index. Figure 15 shows the overall results and economy scores.

The view from the top – the U.S. is not alone

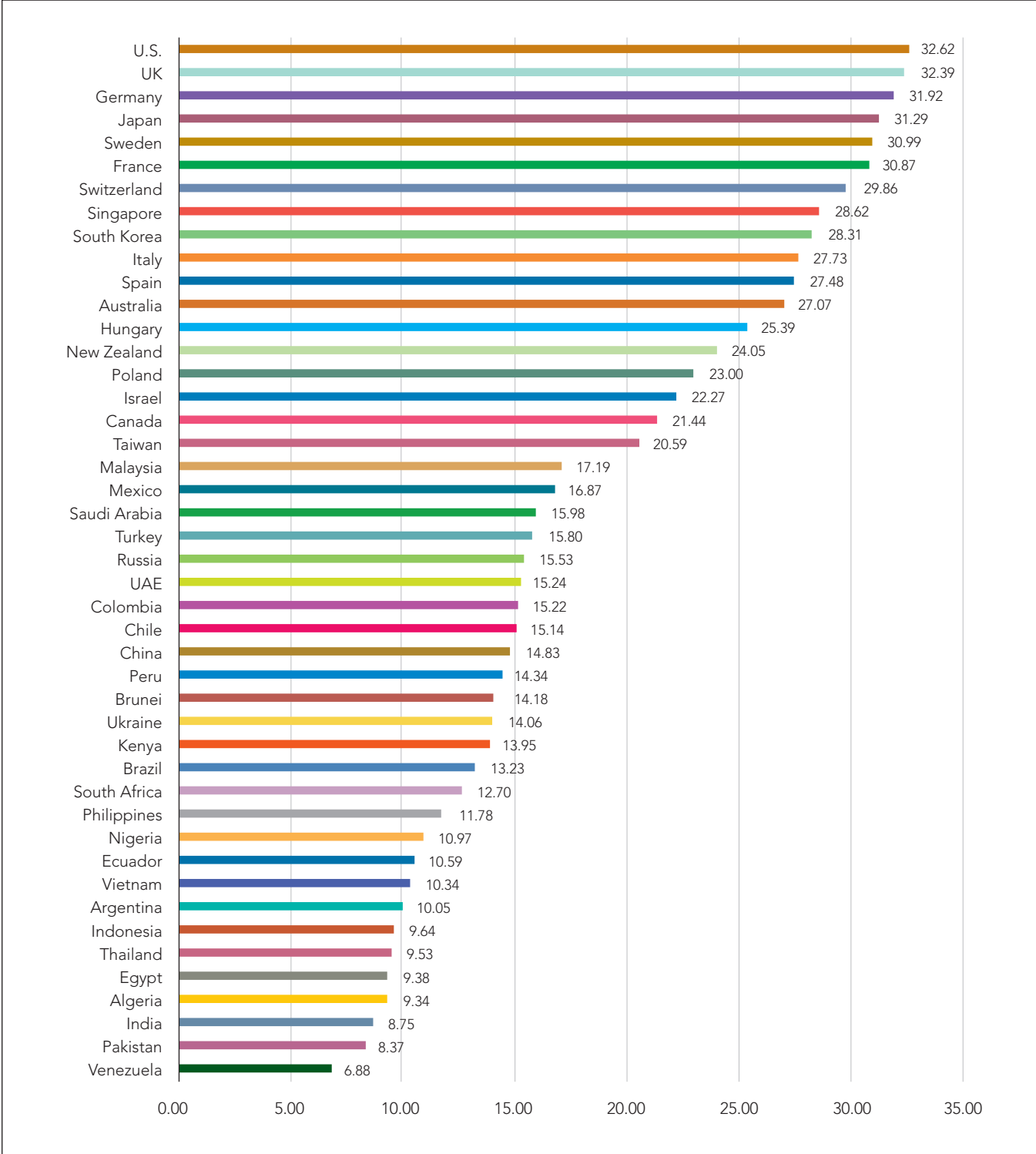
What immediately stands out is how the top of the Index is tightening. In previous editions, there was still a clear, albeit constantly shrinking, gap between the U.S. and other economies. This year, the U.S. is ahead of the UK by less than a quarter of a point, or less than

1% of the available score. More broadly it is clear that many EU economies and Japan are closer to the U.S. than ever before.

One reason for this shrinking gap is the continued refinement of the Index as an assessment tool. The UK, Japan, and many EU economies perform better than the U.S. does on the 5 new indicators introduced in this year's edition of the Index. For example, with regard to patent opposition proceedings, the American framework is simply not as effective as that used by the EPO and other European economies. The two mechanisms introduced by the 2011 American Invents Act have by and large not met rights holders' expectations. Despite the intention of the new opposition mechanisms to curb bad faith actors, the ease of challenging patents during the post-grant period, particularly via the *inter partes* review mechanism, has led to a high rate of trials and of rejections (between 40% and 65% depending on type of technology), with challenges considered by some experts to be disproportionately funded by bad faith actors and with steeply increasing defense costs for patent holders. More broadly, although the USPTO continues to issue guidance on biotechnology and software patenting, the patenting environment in the U.S. has continued to be plagued by uncertainty. In fact, digging a bit deeper into the Index results and looking at the results for Category 1: Patents, Related Rights, and Limitations, the U.S. falls from 1st to 10th behind most European economies included in the Index as well as Singapore and Japan.

On the other hand, a number of developed, high-income economies that had been underperforming in previous editions have substantially increased their scores this year. Japan, for instance, has seen its score increase by over 10%—from under 80% of the maximum

Figure 4: 2017 Overall Scores



THE ROOTS OF INNOVATION



available score in the fourth edition to close to 90% this year. In large measure, this is due to the swift ratification of the TPP treaty including accession to all required international IP treaties, such as the Patent Law Treaty and the Singapore Treaty on the Law of Trademarks. Japan's national IP environment is also very strong with regards to all of the new indicators included in the Index.

Among other high-income OECD economies, Australia's score dropped from the last edition of the Index. In large measure, this is due to weaknesses on the newly included indicators, in particular relating to patent opposition proceedings. Australia (together with New Zealand and Israel) is one of the few developed OECD economies that provides a pre-grant form of patent opposition. The system is considered to extend the patent review process significantly, delaying the granting of patents and reducing the available term of protection afforded to patent holders. For example, a 2012 academic study published in the *University of New South Wales Law Journal* found that Australian opposition filings typically delayed the granting of a patent by close to 2 years (the mean delay found was 2.4 years versus the median of 1.8 years).

As in years past, Canada and New Zealand continue to stand out as examples of developed high-income economies closer to the score of middle-income economies than that of the U.S. and EU. Indeed, Canada is just over 4 points ahead of Mexico and Malaysia (the best-performing middle-income economies) but more than 10 points behind Germany, the UK, and the U.S.

Developing or regressing? Troubling trends in emerging economies

As for emerging markets, this year's results are even more mixed than usual.

For example, Saudi Arabia (a new addition this year) stands out for its relatively strong performance overall and in particular for achieving the highest score of all emerging markets in Category 1: Patents, Related Rights, and Limitations, only 0.5 points behind New Zealand.

Similarly, China's overall score has increased marginally from the fourth to the fifth edition—as it has in each consecutive edition of the Index. This present improvement in score mainly results from enhanced damage calculations that support adequate compensation for patent holders provided for in a 2016 Judicial Interpretation on patent infringement. Additionally, China scores well on the level of transparency and public reporting by customs authorities on trade-related IP infringement, a new indicator this year. However, crucial gaps in the areas of industrial design protection and barriers to commercialization of IP assets hold China back from a further rise in score on the other new indicators.

India and Brazil have both seen a slight improvement in their scores overall. However, this increase is largely because of a relatively strong performance on the five new indicators included in the Index and not from any actual improvements to their national IP environments. On the contrary, in India, for instance, a number of developments have had a pronounced negative impact. Of note is the High Court of Delhi judgment in the long-running case between some of the world's leading academic publishers (including both Oxford and Cambridge University presses as well as Taylor & Francis) and the University of Delhi and a local photocopy shop. In a significant blow to rights holders, not only did the court find nothing wrong with the University of Delhi providing a photocopied master-copy of course texts for students to photocopy themselves in the university library, but it also did not object to the obvious commercial gain derived from the



copy shop for providing this service. Confusingly, while in December 2016 the case was set to be heard again in 2017 (following the intervention by a division bench of the Delhi High Court), no accompanying court order was given to suspend the ongoing and widespread infringement of the rights holders' copyright.

Russia and South Africa have seen substantial deterioration in their national IP environments. For both economies, this decline is largely because of the intensification of localization policies. In the case of Russia, the decline occurs despite a small increase in its overall score resulting from a relatively strong performance on the five new Index indicators. For example, in late 2015 the Russian government adopted Resolution No. 1289 "On Restrictions and Conditions of Access of Foreign Essential Medicines to State and Municipal Tenders," which introduces a direct import ban within the procurement system. Access to state purchases of imported medicines will not be allowed when (at the time supplies are requested) at least two generics produced within the Eurasian Economic Union (EEU) are available for a given product. Foreign manufacturers will only be able to participate in a public tender in cases where fewer than two bids from EEU manufacturers have been submitted. In addition, Decree 1125/2015 made the National Immunobiological Holding Company (owned by state-owned corporation Rostech) the sole provider of immunobiological products for state needs for the period 2015–17. Similarly, in the 2016 *Industrial Policy Action Plan 2016-17-2018-19 (IPAP)*, South Africa outlined new policies that strengthen localization requirements. The IPAP confirms the government's objective (first outlined in the 2014 five-year plan *Medium Term Strategic Framework*) of achieving a level of 75% local procurement. Specifically, it strengthens cross-governmental enforcement activities and ensures greater compliance and application

of these localization requirements. The IPAP also, both more broadly and in the sectoral focus area discussions, places a heavy emphasis on the transfer of technologies from international rights holders to local companies.

In Latin America, Colombia stands out for the significant regression in its national IP environment. Its overall score has fallen substantially from 47% in the fourth edition to 43% in the fifth edition. Although Colombia's score rose in relation to the patentability of computer-implemented inventions (with evidence of higher volumes and speedier patenting of computer-related patents), the drop in overall performance results from challenges around compulsory licensing and relatively low scores on the new Index indicators, particularly in relation to patent opposition and licensing barriers. In 2016, the Ministry of Health and the Colombian government actively considered (on the basis of a recommendation of an internal committee) issuing a compulsory license on the oncology drug Glivec on the grounds of high prices. At the time of research, the Colombian government had issued a "Declaration of Public Interest" via Resolution 2475 and committed to unilaterally reducing the price of Glivec by about 45%. Although the government has not moved forward with issuing a compulsory license, the above steps can be viewed as a manner of abusing the compulsory license regime for price considerations, even though no patient access concerns were cited. On the contrary, competing forms of the medicine were available on the market and the price for Glivec was set and reduced multiple times by the Colombian government under the existing price control regime.

A few countries toward the bottom of the Index also stand out. In 2016, both Ecuador and Indonesia, for example, continued to embark on a path of actively

THE ROOTS OF INNOVATION



restricting IP rights. In October 2016, Ecuador's National Assembly passed the *Código Orgánico de Economía Social del Conocimiento, la Creatividad y la Innovación (Código Ingenios)*. The legislation touches on all facets of IP rights, R&D, and innovation. While the law aims to encourage innovation, R&D, and the development of new technologies, the legislation includes strong elements of local preferences and discrimination against foreign companies in, for example, software procurement. More broadly, the law imposes new limits on patentability and expands non-patentable subject matter and—in a virtually unprecedented move—limits the number of renewable periods for trademark registrations. Similarly, while the aim of Indonesia's new patent law is to strengthen Indonesia's innovation infrastructure and encourage more high-tech economic development through the creation and use of new technologies, overall the law does not improve what was already a challenging patenting environment. Article 4 inserts a new heightened efficacy requirement that targets biopharmaceutical products and outlaws second use claims. The new efficacy standard is not comprehensively defined with the sole example cited being for antibiotics. In a further effort to target biopharmaceutical innovation, Article 167 of the law allows the parallel importation of follow-on products under patent protection in Indonesia but approved for consumption in other markets. The law explains that this importation is to target the cost of medicines and in particular where prices in Indonesia are judged to be higher than the "international market." No details are provided as to what constitutes a "higher price" or the "international market." This law adds significant uncertainty and raises serious questions as to the extent basic patent protection is afforded to biopharmaceutical products in Indonesia. Existing compulsory licensing mechanisms—including so-called government use licenses—have also been

expanded. Last, Article 20 of the law mandates that all patent rights holders "make" the patented product or process within Indonesia. Subsection (2) of this article states that this production should support Indonesia's industrial and development policies, specifically the "transfer of technology, investment absorption and/or employment." No further details are provided as to the meaning or legal definition of "make" in this context. As discussed in previous editions of the Index, Indonesia has had in place a number of localization requirements that target certain industrial sectors (most notably the biopharmaceutical sector), but this new requirement seems to broaden this mandatory localization to any and all patented technologies in Indonesia.

Rays of light...

Despite the negative trend toward restricting IP rights, the results of the Index also show how in many economies—sometimes paradoxically in some of those economies with the most challenging and restrictive policies in place—IP is increasingly viewed as an asset worth protecting.

Creating an effective and active IP enforcement presence

Several economies in the Index took important steps in 2016 to strengthen their IP enforcement bodies and enhance anticounterfeiting and antipiracy activities. Different economies bolstered legal tools for deterring infringement, such as increasing damages available and heightening criminal penalties for key areas such as counterfeit medicines. For example, patent amendments issued by China's patent office (under review in 2016) would positively increase statutory damages significantly from RMB10,000–RMB1 million to RMB100,000–RMB5 million (about USD750,000).



In relation to damages, a 2016 Judicial Interpretation on patent infringement shifts the burden of proof to infringers and allows the release of evidence from infringers in order to promote a more accurate calculation of damages. Similar measures on burden of proof and damage assessment entered into force in 2016 in South Korea. In Pakistan, despite criminal penalties being considered inadequate and nondeterrent overall, certain provinces have raised penalties for infringement; in 2015, Punjab province increased penalties for the production and sale of counterfeit medicines to a minimum of 5 years (with a maximum of 10 years).

Other economies took steps to bolster capacity and resources for enforcement bodies. Pakistan's Intellectual Property Organisation recently introduced specialized IP courts, training for judges, and efforts to reduce red tape. It remains to be seen how effective these new courts will be in addressing backlogs, but appointed judges reportedly have strong IP backgrounds. In the UAE, Ministerial Resolution 137/2016 created a specialized judicial department to deal with federal disputes, such as cancellation acts; the first dedicated IP rights (IPR) Court Circuit was set up in 2016 at the Abu Dhabi Court of First Instance. The increased specialization is expected to speed up the handling of IP litigation before both federal and emirate-level courts and could increase the availability of effective civil remedies, such as injunctions, which are currently difficult to secure.

Still other economies introduced new enforcement and education campaigns that target key infringement strongholds and choke points in their economies. The IP office of the Philippines, IPOPHL, engaged in enforcement activities in partnership with rights holders, including sending warning notices to

suspected infringers, conducting inspections and raids, and collecting evidence. In addition, since 2008, the Philippines also has had in place an Inter-Agency Committee on IPR Enforcement, which inter alia dedicates efforts to education campaigns, capacity building, data sharing, and international harmonization. Moreover, Civil Procedure Act amendments in South Korea that entered into force in 2016 have centralized jurisdiction of patents, trademarks, and design rights in five specialized district courts and appeals to the Patent Court. The move is expected to make injunctive relief and damages more clearly available and, as the Patent Court will rule on appeals to both infringement and invalidity, preclude fragmentation when both types of proceedings run concurrently.

Building 21st century IP frameworks

A number of economies in the Index have also introduced IP reforms aimed at updating existing frameworks and addressing key needs of cutting-edge technologies and sectors. For instance, in 2016, Taiwan undertook a review of its main IP laws, with proposed patent amendments to the Patent Act to further strengthen the already pro-technology patenting framework by extending the grace period for filing a patent to 12 months. In addition, although other important gaps must still be addressed, copyright amendments take some steps to extend the scope of protection, for instance by criminalizing circumvention of technological protection measures (TPMs) and adding protection for encrypted program-carrying satellite and cable signals. Among newcomer economies in the fifth edition, pockets of IP legislation provide for up-to-date, sector-specific measures. For example, IP and e-commerce legislation in the Philippines criminalizes the circumvention of TPMs, including the most modern types of control measures, as confirmed by a Legal Opinion from the Department

THE ROOTS OF INNOVATION

of Justice in 2015. Kenya's copyright framework in relation to digital rights management (DRM) legislation is also relatively sophisticated; it targets not only the act of circumvention but also the production of circumvention devices in its definition of infringing acts under the Copyright Act. Also, the use of licensed software is required among government agencies in the Ministry of ICT's Policy on Software Licensing Regime as well as in several agency-specific policies. These standards are reiterated in a draft policy on information security considered in 2016.

Leveraging global partnerships and IP networks to enhance international IP standards

2016 saw important movement forward on international and bilateral treaties involving substantial IP measures. As discussed in the preceding section, the TPP Agreement represents a significant, if incomplete, upgrade of existing international benchmarks and WTO standards, closer to that of the indicators included in the Index than TRIPS. Beyond the TPP, different economies concluded bilateral agreements that promote global IP best practices. The text of the European Union-Vietnam FTA was agreed to in 2016. The agreement will reportedly be signed in 2017 and enter into force in 2018. IP provisions in chapter 12 tackle a number of the major holes in Vietnam's current IP system, including, among other elements, provision of a two-year patent term extension; automatic RDP protection for pharmaceuticals; narrower exceptions to copyright and DRM protection; a clear definition of liability exemptions for key types of online intermediaries; revocation of bad faith trademarks; enhanced civil remedies; and *ex officio* action by customs in relation to IP infringement.

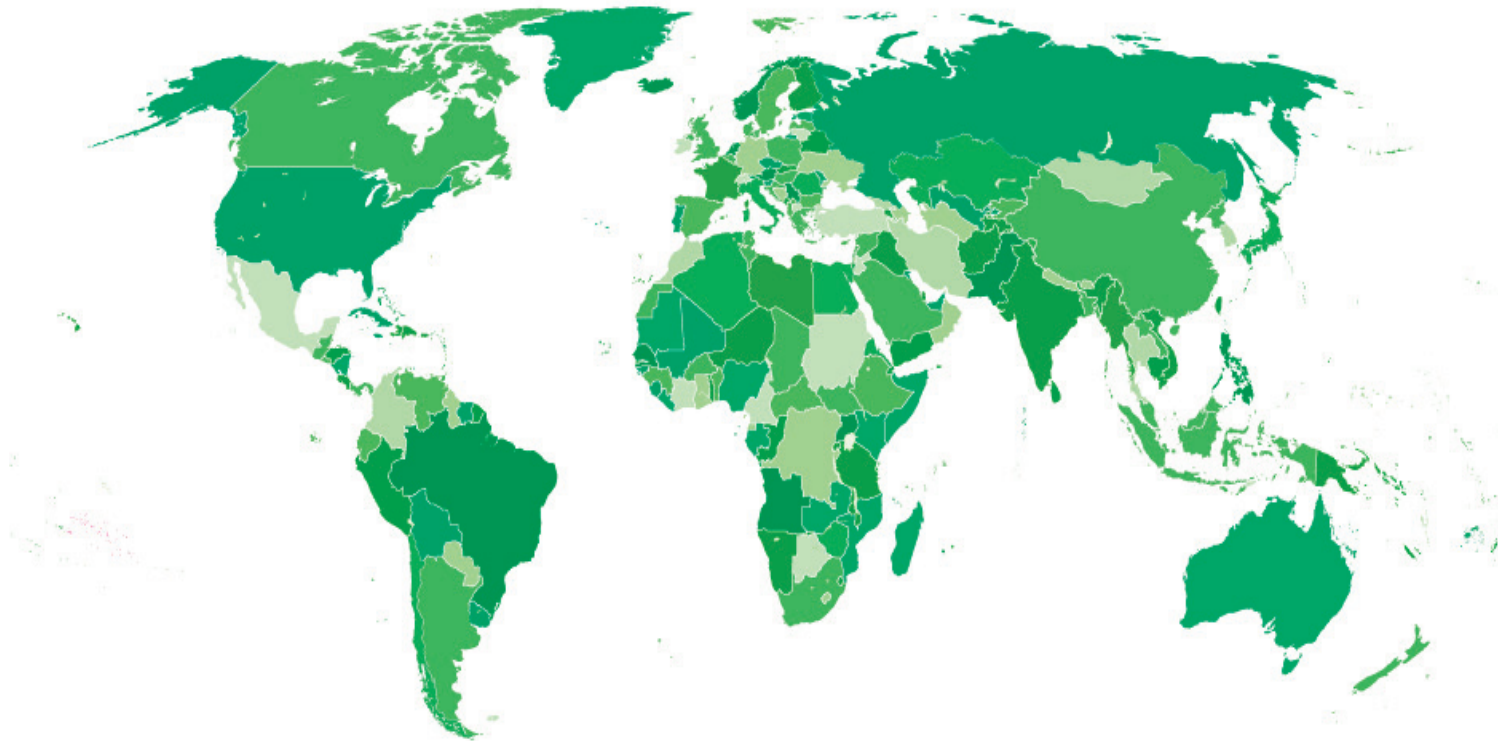
Economies in the Index also entered into new bilateral and regional IP partnerships for capacity building,

harmonization, and consolidating resources. Some of the most widespread partnerships growing in 2016 were PPHs aimed at streamlining patent examination and reducing duplicative review. In many economies, PPH commitments represent important steps toward addressing large backlogs and improving examination standards. Entry into PPHs factored heavily in 2016 in many Latin American economies including Argentina, Chile, Colombia, Mexico, and Peru. For example, to tackle persistently long IP office delays, Argentina's National Institute of Industrial Property (INPI) is seeking to significantly speed up application procedures, committing to issue a decision within 60 days from receiving a request for accelerated examination for qualified claims. The Peruvian IP office, INDECOPI, entered into a PPH scheme with Spain in January 2016 and with other Pacific Alliance countries (Mexico, Colombia, and Chile) in June 2016. International IP cooperation is also increasingly visible in Asia. The Philippines is a member of the Association of Southeast Asian Nations (ASEAN) Patent Examination Cooperation, with access to regional search and examination results, and has entered into PPHs with the USPTO and JPO. Vietnam's National Office of IP, NOIP, has entered into a new PPH with Japan in an effort to improve capacity, accelerate patent examination, and address its growing patent backlog.

Economies that have leveraged international partnerships are also demonstrating positive results. In the context of an accelerated examination program and PPHs with the U.S., Japan, and, since 2015, South Korea, the average patent review time in Taiwan shrank to less than 24 months in 2016, from over 47 months in 2012. The average review time of applications filed under its PPHs was just about 135 days in 2016 (as of the time of research).



7. Economy Overviews



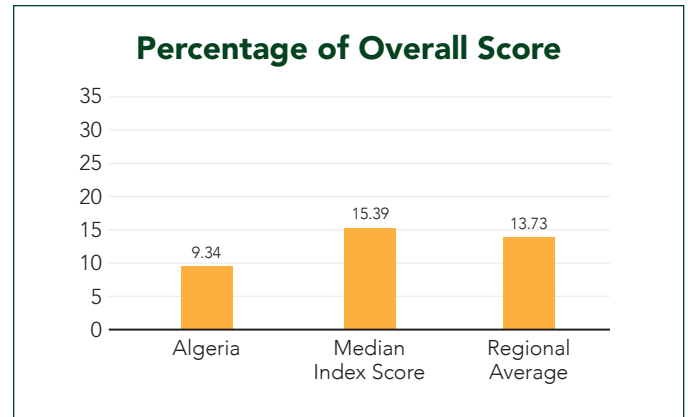
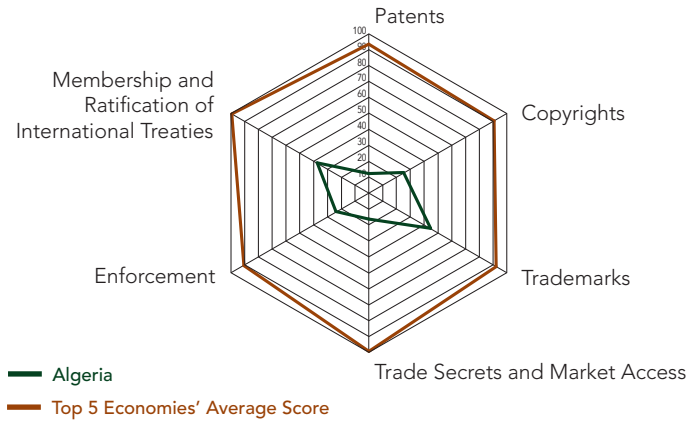
Introduction

This section provides an overview and analysis of each individual economy's score on all 35 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 five performers in each category of the Index. The second figure displays each economy's overall score compared with the median overall score and regional average for that particular economy. Also included is a summary of key areas of strengths and weaknesses

in the national IP environment for each individual economy. 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."

For economies included in previous editions of the Index, an additional discussion is included titled "Past Editions versus Current Scores," in which the economy's score in the preceding editions is discussed and contrasted with its current score.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic framework for IP protection in place
- ✓ Signatory to certain international IP treaties, such as the World Intellectual Property Organization (WIPO) Internet Treaties and Patent Law Treaty

Key Areas of Weakness

- ✗ Difficult localization policies in place with import substitution bans and local ownership requirements
- ✗ Key life sciences IP rights missing and challenging patent enforcement environment
- ✗ Major holes in legal framework for enforcing copyrights, including clear guidance on Internet service providers (ISP) liability and effective provisions for takedown of infringing websites
- ✗ High rates of piracy—estimated 83% software piracy rate
- ✗ Not a WTO member or TRIPS signatory

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	0	20. Industrial design term of protection	0.4
3. Patentability of CILs	0	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.5
9. Term of protection	0.52	26. Software piracy rates	0.17
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0	28. Pre-established damages	0.25
12. Limitations and exceptions	0.5	29. Criminal standards	0.25
13. Digital rights management	0	30. Effective border measures	0.25
14. Government use of licensed software	0.25	31. Transparency and public reporting by customs	0
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.25	34. Patent Law Treaty	0.5
18. Exclusive rights	0.25	35. Post-TRIPS FTA	0
TOTAL: 9.34			

Spotlight on the National IP Environment

Past Editions versus Current Scores

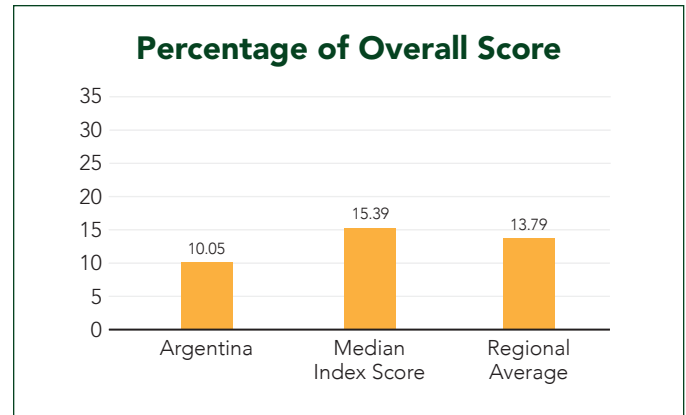
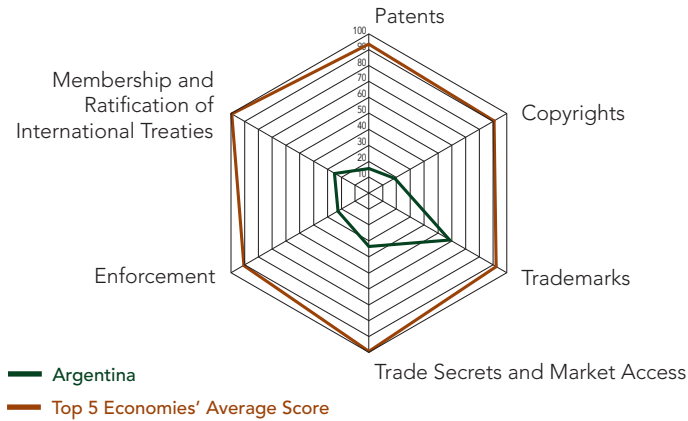
Algeria's overall score has decreased slightly from 28% (8.54 out of 30) in the fourth edition of the Index to 27% (9.34 out of 35) in the fifth edition. This drop in score mainly reflects a rather weak performance in the 5 new indicators added in the fifth edition as well as a continued deterioration in the localization environment.

Trade Secrets and Market Access

23. Barriers to market access; and 24. Regulatory and administrative barriers to the commercialization of IP assets: As noted in previous editions of the Index, Algeria has for several years imposed protectionist-style rules for how foreign firms may participate in the market, with the government actively pursuing an import substitution policy. The stated objective of these rules is to reduce imports, encourage domestic production, and maximize technology transfer. Although largely emanating from the oil and gas industry, these policies run across various sectors and both directly and indirectly affect IP rights holders by imposing *de facto* localization requirements in return for market access. For example, on the basis of a preexisting measure in the oil and gas sector, the 2009 Complementary Finance Law limits foreign investment to a minority stake (49% or below) in any industrial sector. The effect of this requirement is to impose a *de facto* localization requirement for foreign firms wishing to operate in Algeria directly or through licensing agreements. Other rules target particular sectors. For example, the most stringent localization policies adopted in Algeria are outright import bans and quotas placed on, for example, biopharmaceutical products. Restrictions on drug imports have been in place since October 2008 and have been further expanded since then. These rules and policy framework intensified in 2016 with new restrictions being imposed through a system of import licenses and further import bans. Additionally, in an effort to further enforce the local partnering requirements through the 51-49% local ownership mandate, the 2015 Ministerial Order (announced in November 2015) restricts representative offices (*bureaux de liaison*) from engaging in any form of commercial activity. Unfortunately, the 2016 Investment Law and Finance Law did not address these localization requirements, and there has been no relaxation of import bans targeting the biopharmaceutical or other sectors.

Enforcement

30. Effective border measures; and 31. Transparency and public reporting by customs authorities of trade-related IP infringement: Article 241 of the 2002 Algerian Customs Code provides customs agents and other officials the right to act against suspected goods. However, the extent to which this amounts to an *ex officio* authority is not clear. Article 22 of the latest available revision to the Customs Code provides explicit protection for goods that violate IP rights including trademarks, copyrights, and patent rights. However, neither this article nor corresponding amendments to the code provide clear *ex officio* authority for customs officials to act against suspected infringing goods. Similarly, no legal provisions are in place for infringing goods in transit not intended for the Algerian market. A customs recordal system is available in Algeria that provides rights holders with the option to record their IP rights with customs officials. Local legal analysis suggests that this is, relatively speaking, the most effective route for rights holders to obtain protection for their products, as the domestic production of counterfeit goods is limited. Still, estimates by Algerian customs authorities as well as by the U.S. Commerce Department suggest that the vast majority of Algerian imports (particularly cosmetics, mobile devices, and other consumer goods) are, in fact, counterfeit. With regard to levels of transparency and the public availability of customs activities, the Algerian Customs Authority (*Direction Générale des Douanes*) does not publish systematic or annualized data on seizures relating to IP rights-infringing goods.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic framework for IP protection in place
- ✓ Signatory to the WIPO Internet Treaties
- ✓ Rise in police and custom raids and seizures, and ongoing streamlining of administrative and enforcement bodies

Key Areas of Weakness

- ✗ Key life sciences IP rights missing and challenging patent enforcement environment
- ✗ Major holes in legal framework for enforcing copyrights, including clear guidance on ISP liability and effective provisions for takedown of infringing websites
- ✗ Persisting high rates of counterfeiting and piracy
- ✗ Judicial procedure slow and court decisions nontransparent/deterrent

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0	20. Industrial design term of protection	0.6
3. Patentability of CILs	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.25
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.63	25. Physical counterfeiting rates	0.26
10. Exclusive rights	0.25	26. Software piracy rates	0.31
11. Cooperative action against online piracy	0	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0.25	28. Pre-established damages	0
13. Digital rights management	0	29. Criminal standards	0.25
14. Government use of licensed software	0	30. Effective border measures	0.5
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	1
18. Exclusive rights	0.25	33. Singapore Treaty on the Law of Trademarks	0
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0
TOTAL: 10.05			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Argentina's overall score has decreased slightly from 30% of the total possible score (with a score of 8.91 out of 30) in the fourth edition of the Index to 29% (10.05 out of 35) in the fifth edition. This drop in score partly reflects gaps in relation to the new indicators added in the fifth edition, particularly in terms of the pre-grant patent opposition mechanism in place in Argentina and a low level of transparency and public reporting of trade-related IP infringement by customs authorities.

Patents, Related Rights, and Limitations

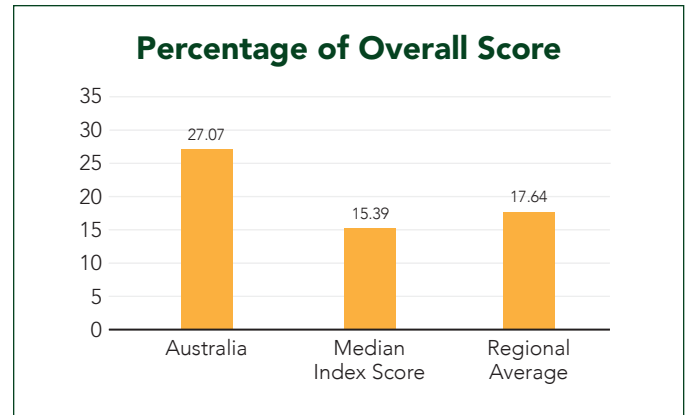
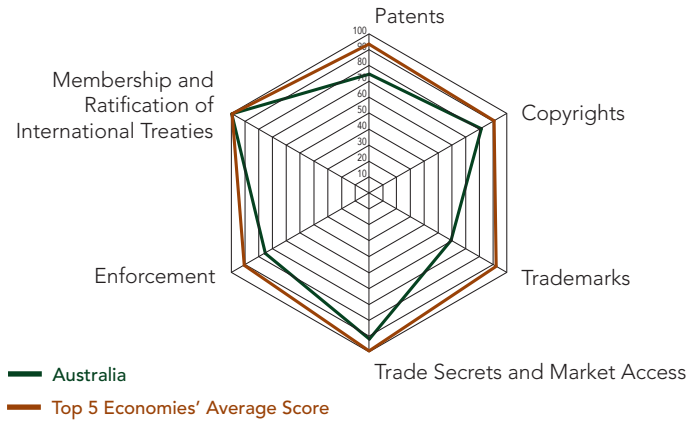
2. Patentability requirements: New patentability guidelines further curtail the protection of biotech and ag-bio inventions by precluding patents involving biotech processes and biological components, such as genetically modified seeds. Indicating the tighter stance, in 2016 the patent office, *Instituto Nacional de La Propiedad Industrial* (INPI), rejected two ag-bio patents that had already been approved in other Latin American countries and with claims structured similarly to previously approved patents. The new guidelines also add complex requirements for the sufficient disclosure of gene sequences in applications, requesting the full sequence of all genes claimed and demonstration of their function. In addition, 2016 saw a sharp increase in the refusal rate for pharmaceutical patents, with less than 5% accepted by INPI. The increasingly narrow approach to patentability compounds an already difficult patenting environment and one where significant delays erode the term of protection available to patent holders. In a positive move, under a new PPH, INPI promises to significantly speed up application procedures, committing to issue a decision within 60 days of receiving a request for accelerated examination for qualified claims.

Trademarks, Related Rights, and Limitations

18. Legal measures available that provide necessary exclusive rights to redress the unauthorized uses of trademarks: Entry into force of Law 27,222 further raises the bar for securing and defending a trademark, resulting in a drop of 0.25 in Argentina's score for this indicator. The new measure voids trademark applications in cases where opposition proceedings are not settled (outside a court) within 1 year. Counterfeit products continue to be widely available and accepted, despite some enforcement actions taken in recent years, notably in Buenos Aires. The Argentine Chamber of Commerce registered an almost 30% increase in counterfeit goods from 2014 to 2015. In particular, the number of markets built on the model of the famous *La Salada* market rose by at least 15% to about 650 in 2016.

Enforcement

29. Criminal standards including minimum imprisonment and minimum fines; and 30. Effective border measures: In 2016, IP enforcement agencies underwent restructuring that is expected to help target anticounterfeiting efforts that streamline operations. A new City Police was created in Buenos Aires, with an infusion of new resources and consolidation of federal and local forces, aimed at concentrating efforts on a strategic, high-traffic, high-crime area of the country (including in terms of IP infringement). Similarly, an ongoing customs reform is expected to improve the efficiency and effectiveness of customs' operations, including its anticounterfeiting efforts.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Biopharmaceutical IP rights available (with room for improvement in areas such as RDP)
- ✓ Legal framework permitting blocking of foreign-hosted infringing websites
- ✓ Relatively low counterfeiting and piracy rates (although still problematic)
- ✓ Civil and procedural remedies available and increased IP specialization stemming from a recent Federal Court reform

Key Areas of Weakness

- ✗ Pre-grant patent opposition system introduces significant delays to patent grants
- ✗ Persistent lack of cooperative scheme to address and remove online infringing material without court order
- ✗ Restrictions on the use of brands, trademarks, and trade dress in packaging
- ✗ Some enforcement loopholes present, such as insufficient criminal penalties and lack of *ex officio* authority for customs officials

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	0.75	20. Industrial design term of protection	0.4
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0.75	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.75
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.63	25. Physical counterfeiting rates	0.74
10. Exclusive rights	1	26. Software piracy rates	0.8
11. Cooperative action against online piracy	0.5	27. Civil and procedural remedies	1
12. Limitations and exceptions	1	28. Pre-established damages	0.75
13. Digital rights management	1	29. Criminal standards	0.75
14. Government use of licensed software	0.75	30. Effective border measures	0.5
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.75
16. Limitations on use of brands	0	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	0.75	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	1
		35. Post-TRIPS FTA	1
TOTAL: 27.07			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Australia's overall score dropped from 83% of the total possible score (with a score of 24.79 out of 30) in the fourth edition of the Index to 77% (27.07 out of 35) in the fifth edition. This mainly reflects weak performance in some of the new indicators, notably patent opposition, and a setback in measures against online piracy. Though not affecting Australia's score in the fifth edition, the Productivity Commission's 2016 review and recommendations on IP could fundamentally curtail IP rights (in some cases, lowering IP standards below those in the TRIPS Agreement), contradict decades of IP policy in Australia, and severely undermine Australia's knowledge-based economy. Proposed measures include introducing new exclusions to patentability and raising renewal fees to discourage use of the full term of protection. The proposals also recommend tackling online piracy by reducing access restrictions and decreasing the current 70-year term of copyright protection significantly. If implemented, these measures could result in a substantial drop in Australia's Index score.

Area of Note

Australia's Department of Health is seeking damages from biopharmaceutical innovators that pursue unsuccessful patent claims. Those damages are designed to compensate Australia's pharmaceutical reimbursement scheme (PBS) for any higher price paid for a patented medicine during the period of a provisional enforcement measure. The PBS imposes automatic price cuts on medicines as soon as competing versions enter the market, but the policy entails no corresponding mechanism to compensate innovators for losses if an infringing product is launched prematurely. Australia's market-size damages policy unfairly tips the scales in commercial patent disputes and creates an inappropriate conflict of interest by permitting the same government that examined and granted a patent to seek damages if that patent is later ruled invalid or not infringed. The continued use of market-sized damages will undermine patent protection and the overall innovative environment in Australia and create greater uncertainty for biopharmaceutical investors.

Patents, Related Rights, and Limitations

2. Patentability requirements: The Australian Patent Office released new guidance on patentability of genetic material in light of the High Court's 2015 decision in *D'Arcy v. Myriad Genetics*. The guidelines maintain that genetic material remains patentable, with exceptions for certain claims that focus on naturally occurring material. Recent court and patent office decisions, such as *Cargill Incorporated v. Dow AgroSciences LLC and Arrowhead Research Corporation (2016) APO 70*, confirm that isolated nucleic acids are patentable as long as they have been modified. In addition, 2016 case law, notably *Central Ltd v. Commissioner of Patents and Research Affiliates LLC v. Commissioner of Patents*, provides further clarity concerning patenting of business methods and software claims: broadly speaking,

they are considered patentable subject matter as long as they produce a new and useful physical effect on a computer.

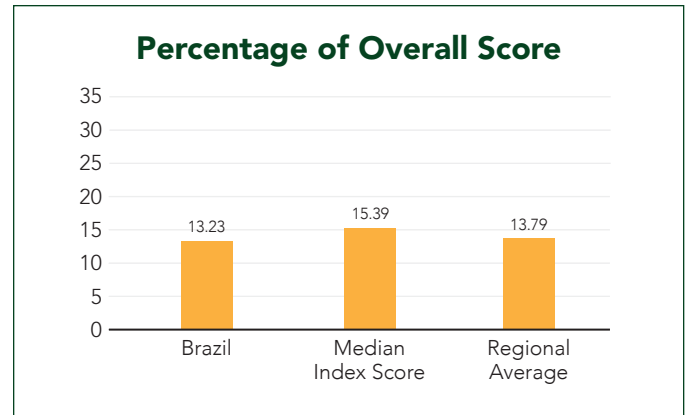
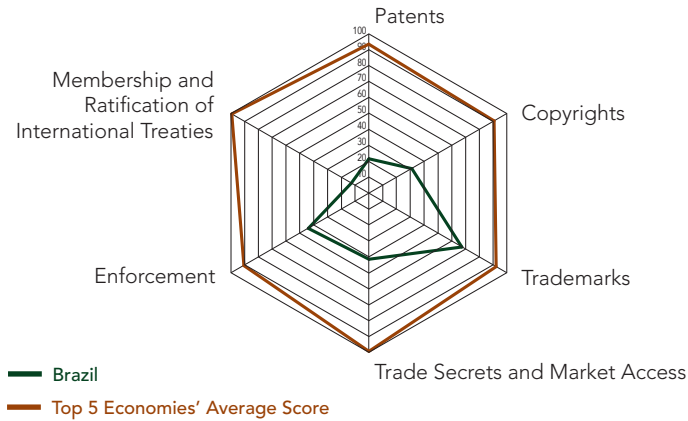
8. Patent opposition: Australia has in place a pre-grant opposition system for patents. Under the system, third parties may file an objection between the publishing of the application and within 3 months after the application is accepted. The system is considered to extend the patent review process significantly, delaying the granting of patents and reducing the available term of protection afforded to patent holders. For example, a 2012 academic study published in the *University of New South Wales Law Journal* found that opposition filings typically delayed the granting of a patent by close to 2 years (the mean delay found was 2.4 years versus the median of 1.8 years). The same study found that the highest volume of oppositions is directed toward pharmaceutical patents.

Copyrights, Related Rights, and Limitations

11. Availability of frameworks that promote cooperative action against online piracy; and 13. Digital rights management (DRM) legislation: In early 2016, the first two actions under the web-blocking regime adopted in 2015 (which requires rights holders to secure a court order to take down infringing websites) were filed at the Federal Court. Judgment in the two cases, brought by Foxtel and Roadshow, was not yet issued at the time of research, reflecting procedural delays inherent in a court-ordered notice and takedown system. Meanwhile, the industry-developed three-strikes mechanism announced in 2015 to block infringing websites was put on hold before it ever entered into force, following failed negotiations between rights holders and ISPs over who should bear the financial burden of the system. Stakeholders have reportedly asked the government to shelve any new copyright notice scheme proposal until 2017. As a result, Australia's score for indicator 11 falls by 0.25. More generally, piracy remains a problem, as do loopholes in the legal framework, such as the lack of an adequate legal basis for addressing virtual private network use to circumvent geo-blocking technologies.

Trademarks, Related Rights, and Limitations

20. Industrial design term of protection; and 21. Legal measures available that provide necessary exclusive rights to redress the unauthorized use of industrial design rights: An ongoing review of the design system would only partially bring design protection to international standards. The current legislative framework provides for a 10-year term of protection, does not recognize unregistered rights, lacks a grace period, and does provide for criminal liability. These limitations result in relatively low use of design rights, regarded as secondary compared with other IP rights. In response to the former Advisory Council on Intellectual Property's review of the design system, the government has committed to introducing a 6-month grace period and is considering extending design protection to 15 years.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic framework for IP protection in place
- ✓ 10-year minimum term of patent protection in place for administrative delays
- ✓ Signatory to the Patent Law Treaty

Key Areas of Weakness

- ✗ Significant regulatory barriers to the commercialization of IP assets
- ✗ Key life sciences IP rights missing and challenging patentability environment
- ✗ Patentability barriers still in place through Brazil's National Health Surveillance Agency (ANVISA) review of biopharmaceutical applicants
- ✗ Relatively high levels of estimated software piracy

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0	20. Industrial design term of protection	1
3. Patentability of CILs	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.75
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0
8. Patent opposition	0.5	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.57
9. Term of protection	0.63	26. Software piracy rates	0.53
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0	28. Pre-established damages	0.25
12. Limitations and exceptions	0.5	29. Criminal standards	0.25
13. Digital rights management	0.25	30. Effective border measures	0.5
14. Government use of licensed software	0.25	31. Transparency and public reporting by customs	0.75
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	0
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.5	34. Patent Law Treaty	0.5
18. Exclusive rights	0.5	35. Post-TRIPS FTA	0
TOTAL: 13.23			

Spotlight on the National IP Environment

Past Editions versus Current Scores

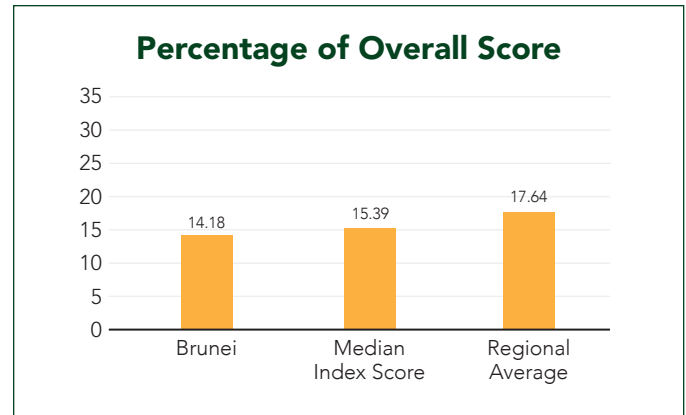
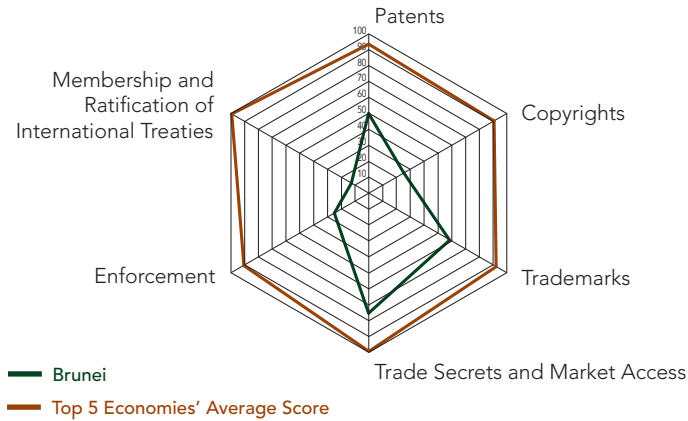
Brazil's overall score has increased from 35% (10.41 out of 30) in the fourth edition of the Index to 38% (13.23 out of 35) in the fifth edition. This increase in score mainly reflects a relatively strong performance in the 5 new indicators added in the fifth edition, including transparency and public reporting by customs authorities.

Patents, Related Rights, and Limitations

8. Patent opposition: Under Brazil's Industrial Property Law (*Lei 9,279*), patent opposition proceedings are formally post-grant and can be either administrative or judicial. Articles 50–56 of the law outline proceedings for opposing a patent and nullification. Under both proceedings, these may be requested or started by either the Brazilian Patent and Trademark Office (INPI) or any person with a "legitimate interest." In addition to these formalized opposition proceedings, Brazilian law also provides a mechanism whereby interested parties can make submissions after publication of the application, but these are not formally termed an opposition and are instead called "subsides." It is not clear the extent to which patent examiners rely on any such submissions as they are not statutorily obliged to do so or how they affect the overall patent prosecution. Article 31 of the Industrial Property Law does not provide details. It merely states: "After publication of the application and up to the end of the examination, interested parties may submit documents and data to assist the examination." In light of this lack of clarity of these submissions and with a view of strengthening the ability to oppose patents prior to their being granted, proposed 2013 amendments to the Industrial Property Law (PL5402/2013) would, in addition to the existing post-grant opposition mechanisms, introduce a system of pre-grant opposition. At the time of research, no votes had been scheduled for this bill, which is still listed as being under consideration by the Brazilian Congress. Given the long-standing and significant backlogs at the INPI—ranging from 10 to 13 years depending on the field of technology—it is likely that any introduction of a pre-grant opposition system would add significant processing time to an already overburdened examination system. The experiences of other countries with pre-grant opposition systems (including, for example, Australia) suggest that under such a system there is not only an added processing time due to the pre-grant mechanism, but also a real risk that certain industries and sectors (including mining and pharmaceuticals, which is the experience in Australia) where a delay in patent grant can lead to a significant competitive advantage may be abused. For example, a 2012 academic study published in the *University of New South Wales Law Journal* found that opposition filings typically delayed the granting of a patent by close to 2 years (the mean delay found was 2.4 years versus the median of 1.8 years).

Trade Secrets and Market Access

24. Regulatory and administrative barriers to the commercialization of IP assets: Brazil has a number of policies and regulations in place to promote the transfer of technology and commercialization of IP. For instance, a key tenet of the 2004 Innovation Law was to encourage the transfer and commercialization of technologies through incubation services for public researchers and greater encouragement of start-up activities. The law provides incentives including royalty guarantees to inventors. Special R&D tax incentives are also in place that reward the commercialization and protection of IP. For example, Brazil has R&D tax credits in place under Law No. 11.196. These credits include a potential 60% deduction on corporation tax liability and social contributions, which can also escalate if there is a year-on-year cumulative increase in R&D spending. An additional 20% deduction is also available once an invention has been patented. However, these initiatives are in many respects undermined by an administrative and regulatory framework that can be both burdensome and inefficient. For example, the practical availability of the additional 20% R&D deduction for patented inventions is very limited given the 10- to 13-year patent backlog at the INPI. More broadly, regulatory and formal requirements are in place that limit the attractiveness of licensing IP assets in Brazil. For example, to become effective and binding on third parties, licensing agreements must be published in the INPI's Official Gazette and agreements must also be approved by INPI. There are also limitations on fees and payments between the contracting parties. Exclusive licensing agreements are subject to more onerous publication requirements than nonexclusive licenses, making this process more time-consuming. The result is an environment that promotes neither technology transfer nor the commercialization of new ideas and technologies. Indeed, as former president of the INPI Jorge Avila stated in a 2016 interview, the INPI's role in regulating and registering licensing activity is unnecessary and adds additional costs and bureaucracy to the IP commercialization process.



Strengths and Weaknesses

Key Areas of Strength	Key Areas of Weakness
<ul style="list-style-type: none"> ✓ Major IP reforms in the past few years including establishing a dedicated IP Office (BruiPO) ✓ Removed from the Office of the U.S. Trade Representative's (USTR) Special 301 Report ✓ Signatory to the TPP 	<ul style="list-style-type: none"> ✗ No draft TPP implementing law in place or presented for discussion ✗ Life sciences IP rights lacking ✗ Regulatory data protection not available ✗ Compulsory license framework overly broad ✗ Limited framework for addressing online piracy and circumvention devices ✗ No notice and takedown system for copyright or trademarks ✗ High software piracy rates—66% in latest estimates

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	0.75	20. Industrial design term of protection	0.6
3. Patentability of CILs	0.75	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	0.5	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.46
9. Term of protection	0.53	26. Software piracy rates	0.34
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0	28. Pre-established damages	0.25
12. Limitations and exceptions	0.25	29. Criminal standards	0.5
13. Digital rights management	0.25	30. Effective border measures	0
14. Government use of licensed software	0.25	31. Transparency and public reporting by customs	0
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	0
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.5	34. Patent Law Treaty	0
18. Exclusive rights	0.5	35. Post-TRIPS FTA	0.5
TOTAL: 14.18			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Brunei's overall score has increased from 38% (11.44 out of 30) in the fourth edition of the Index to 41% (14.18 out of 35) in the fifth edition. This increase in score mainly reflects a relatively strong performance in the 5 new indicators added in the fifth edition.

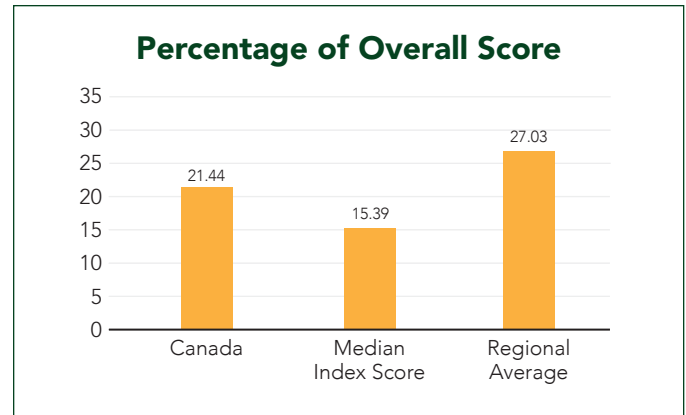
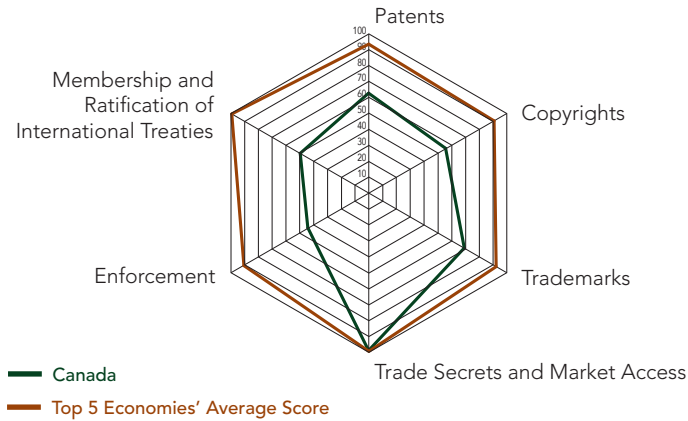
of IP rights, such as trademarks and patents, was much lower. The accession by Brunei to the Hague Agreement in 2013 is a positive step and provides a new avenue for the international registration of design rights.

Patents, Related Rights, and Limitations

8. Patent opposition: The 2011 Patent Order offers neither pre- nor post-grant opposition proceedings. Instead, formal invalidity proceedings can be raised through Part XIV "Revocation of Patents and Validity Proceedings" of the order. Specifically, section 77 allows the patent registrar to accept applications by "any person" questioning the validity of a granted patent. In addition to this administrative proceeding, invalidity proceedings may also take place through a court of law and civil proceedings. Given that the Patent Order is a recent piece of legislation, there is limited case evidence as to the manner in which revocation proceedings take place and the overall effect on the IP environment in Brunei.

Trademarks, Related Rights, and Limitations

20. Industrial design term of protection; and 21. Legal measures available that provide necessary exclusive rights to redress the unauthorized use of industrial design rights: Both the Emergency Industrial Designs Order 1999 and the Emergency Industrial Designs Rules 2000 provides for a relatively comprehensive legal framework for the protection of industrial designs. Section 29 of the order provides an initial term of protection of 5 years, which can be extended twice up to a total of 15 years. While higher than in other economies included in the Index, this term is still less than two-thirds of the international best practice and baseline term of protection of 25 years used within the EU and many other high-income economies. Sections 31–32 of the Designs Order confer exclusive rights and use of registered industrial designs including rights of manufacture, sale, and importation. However, design rights, like other IP rights, are difficult to enforce in Brunei. Counterfeiting of apparel and designed goods remains high. As noted in preceding editions of the Index, Brunei customs authorities do not offer a registration system through which rights holders can record their registered design rights, trademarks, or copyrighted goods. Indeed, public guidance by the EU Commission suggests that the detention of suspected infringing goods by Brunei's customs authorities is rare. Furthermore, awareness of the availability of design rights remains low. Official statistics from the Brunei IP Office show that the number of registration applications between 2012 and 2016 relative to other registerable forms



Strengths and Weaknesses

Key Areas of Strength

- ✓ 70-year copyright term of protection for sound recordings introduced in 2015
- ✓ Border controls confirmed by Canadian government to provide *ex officio* authority to Canadian customs officials
- ✓ Signatory to the TPP and CETA agreements in 2016

Key Areas of Weakness

- ✗ Continued imposition of onerous patentability requirements narrows the scope of inventions for biopharmaceuticals
- ✗ Strong signals from Canadian government that standardized packaging is to be introduced
- ✗ Lack of border measures for in-transit goods and limited transparency and information available from Canadian Customs on seizure statistics

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.25	20. Industrial design term of protection	0.4
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	0.75
4. Pharmaceutical-related enforcement	0.25	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	1
7. Regulatory data protection term	0.8	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	0.75	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.6
9. Term of protection	0.63	26. Software piracy rates	0.76
10. Exclusive rights	0.5	27. Civil and procedural remedies	0.5
11. Cooperative action against online piracy	0.25	28. Pre-established damages	0.25
12. Limitations and exceptions	0.25	29. Criminal standards	0.5
13. Digital rights management	0.75	30. Effective border measures	0.5
14. Government use of licensed software	1	31. Transparency and public reporting by customs	0
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.75	34. Patent Law Treaty	0.5
18. Exclusive rights	0.75	35. Post-TRIPS FTA	0.5
TOTAL: 21.44			

Spotlight on the National IP Environment

Past Editions versus Current Scores

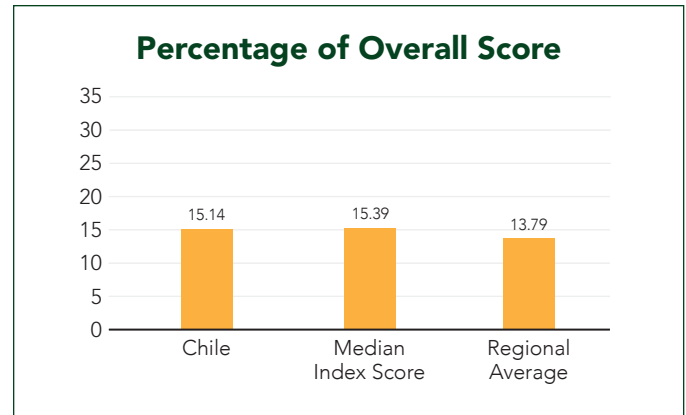
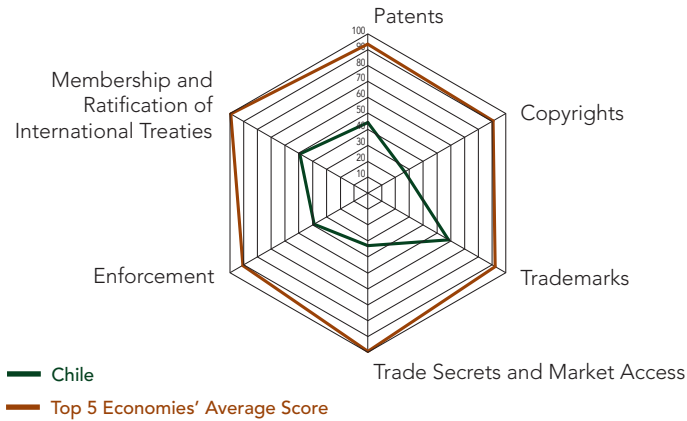
Canada's overall score has increased marginally from 60.5% (18.17 out of 30) in the fourth edition to 61.3% (21.44 out of 35) in the fifth edition. This change in score reflects a relatively mixed performance on the 5 new indicators added to the fifth edition. At the time of research, the Canadian Parliament was still considering legislation to implement the CETA treaty; by December 2016, the bill had been sent to the Standing Committee on International Trade. As noted in previous editions of the Index, Canada's score would increase considerably with full ratification and implementation of CETA, which would primarily affect scores in life sciences-related indicators and international treaties.

Patents, Related Rights, and Limitations

2. Patentability requirements: As detailed in previous editions of the Index, since the mid-2000s, Canadian Federal Courts have issued a growing number of decisions on the basis of patent utility in relation to biopharmaceutical patents. In no fewer than 28 cases, courts have ruled that biopharmaceutical patents were invalid owing to lack of utility, even though these patented medicines were found to be safe and effective by Health Canada and were being used by hundreds of thousands of Canadian patients. The Canadian standard of utility established through this case law differs from international standards embodied in TRIPS and the Patent Cooperation Treaty, as well as from the practices of patent offices in the United States and EU. Canada's utility test is accompanied by a heightened evidentiary burden that requires innovators to demonstrate the effectiveness of a biopharmaceutical in light of statements in the patent that the court subjectively construes as a "promise" of utility. The test increases uncertainty as to how much information needs to be disclosed in patent applications and discriminates against biopharmaceutical patents. In November 2016, the Supreme Court of Canada heard oral arguments in the long-running case *AstraZeneca Canada Inc. v. Apotex Inc.* AstraZeneca is appealing a 2015 judgment by the Federal Court of Appeal that in turn upheld a lower court finding of lack of utility. The Court of Appeal had ruled that the "promise" of utility made in the original patent "was neither demonstrated nor soundly predicted at the time the patent was filed." A final verdict is expected in early 2017. The court's judgment could prove to be a critical turning point in either entrenching what has become an outlier patentability requirement or realigning Canada's requirement with international standards.

Trademarks, Related Rights, and Limitations

16. Discrimination/restrictions on the use of brands in the packaging of different products: In its preelection party platform published in 2015, the Liberal Party of Canada stated that, if elected, it would seek to "introduce plain packaging requirements for tobacco products, similar to those in Australia and the United Kingdom." Following the party's electoral victory, the prime minister included a reference to plain packaging in his mandate letter to the Minister of Health. In May 2016, the Canadian Department of Health issued the document "Consultation on 'Plain and Standardized Packaging' for Tobacco Products." At the time of research, the consultation had been closed and neither the department nor the government of Canada had issued any further statements. In addition to proposals of standardizing tobacco packaging and restricting the use of trademarks, brands, and related IP, the consultation also included proposals for standardizing the appearance, color, and physical size of tobacco products. The introduction of standardized packaging applied to any industry would significantly restrict the use of brands, trademarks, and trade dress on retail packaging, undermining the benefits of trademarks to businesses and consumers alike and setting a negative precedent for IP policy. The passage of such legislation would decrease Canada's score on this indicator from 1 to 0.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic civil and procedural remedies for IP infringement in legislation
- ✓ Efforts to improve enforcement through interagency coordination, international cooperation, information sharing, and pending IP reform
- ✓ Commitment to improve IP environment through international trade agreements
- ✓ Efforts to streamline IP registration process, including a recent PPH agreement with Mexico, Colombia, and Peru

Key Areas of Weakness

- ✗ Patchy patent protection for pharmaceuticals, including obstacles to patentability and lack of effective patent enforcement
- ✗ High levels of counterfeiting and piracy
- ✗ Lack of sufficient framework to tackle online piracy, including TPM provisions and deterrent punishments
- ✗ Criminal enforcement problematic and rarely pursued, notably for copyright piracy

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.25	20. Industrial design term of protection	0.4
3. Patentability of CILs	0	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0.6	23. Non-barriers to market access	0.25
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.58
9. Term of protection	0.63	26. Software piracy rates	0.43
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.5
11. Cooperative action against online piracy	0	28. Pre-established damages	0.25
12. Limitations and exceptions	0.25	29. Criminal standards	0.25
13. Digital rights management	0	30. Effective border measures	0.25
14. Government use of licensed software	0.5	31. Transparency and public reporting by customs	0.5
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.5	34. Patent Law Treaty	0
18. Exclusive rights	0.5	35. Post-TRIPS FTA	1
TOTAL: 15.14			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Chile's overall score has dropped slightly, falling from 44% of the total possible score (with a score of 13.05 out of 30) in the fourth edition to 43% (15.14 out of 35) in the fifth edition. This drop in score mainly reflects gaps in Chile's framework in relation to the new indicators added in the fifth edition, particularly in relation to the pre-grant patent opposition available in Chile. Overall, the IP environment continues to be challenging, with barriers to IP on the ground and no major movement to address existing gaps with international standards. Draft legislation that could fill in some existing loopholes, notably with regard to enforcement, remains under consideration.

Patents, Related Rights, and Limitations

6. Patent term restoration for pharmaceutical products:

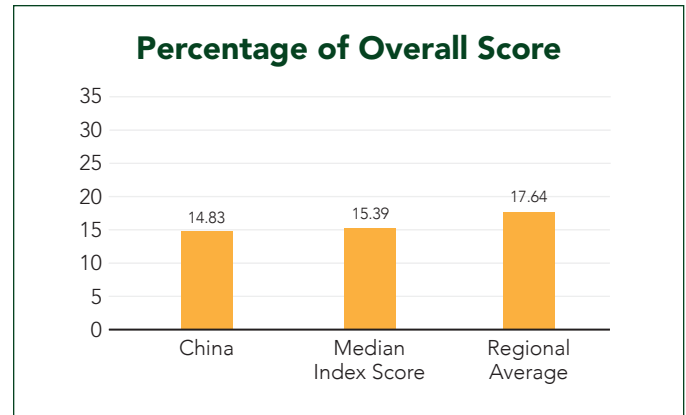
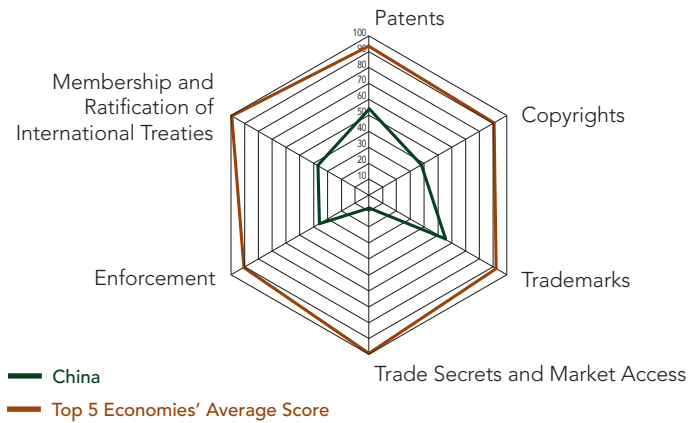
Patent term restoration for pharmaceuticals came under scrutiny in 2016, when the National Economic Prosecutor's Office (FNE) issued a study on restoration's effect on competition with regard to the entry of generic drugs. Among other elements, the FNE recommended that Article 53bis of the IP Code dealing with patent term restoration, introduced in 2007 as part of Chile's commitments in the US-Chile FTA, should not be interpreted widely such that patent term restoration is granted to patents issued prior to the amendments (as they are currently). In addition, FNE's proposals would introduce pre-grant opposition or post-grant nullity action specifically for supplementary protection of such patents, an approach that diverges from international standards. The study does not address how to tackle very long patent approval delays, which at present average about 11 years.

Enforcement

25. Physical counterfeiting rates: Against a background of increasing availability of fake goods, positive steps taken in 2016 suggest a somewhat greater awareness of the scope of counterfeiting and piracy in Chile. These steps include the creation of a public-private platform on illicit trade (*Observatorio del Comercio Ilícito*) reportedly aimed at informing policies and better coordinating actions against trade-related infringement. They also include various awareness and information campaigns, notably with regard to a recent change to the Penal Code that criminalizes repeat purchasing of counterfeits. However, these efforts must be coupled with effective prosecution and more deterrent penalties for infringers (expected to be partially addressed in the current draft IP bills, should they be approved).

Membership and Ratification of International Treaties

35. At least one free trade agreement (FTA) with substantive and/or specific IP provisions such as chapters on IP and separate provisions on IP rights provided it was signed after WTO/TRIPS membership: The TPP was signed on February 4, 2016, by the 12 contracting members and is expected to create a more level playing field in IP and reflect 21st century realities. Implementation of the TPP provisions by the Chilean Congress would involve important commitments to filling in gaps in life sciences IP protection, including in relation to RDP, as well as in the area of online piracy, such as the circumvention of TPMs.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic IP rights in place (with some exceptions)
- ✓ New and proposed patent and copyright reform extends protection and strengthens enforcement
- ✓ Growing expertise and awareness of the value of IP across different levels of government and enforcement agencies
- ✓ Relatively strong public reporting of IP-related seizures by customs authorities

Key Areas of Weakness

- ✗ Levels of IP infringement are at historic levels and growing
- ✗ Interpretation of IP laws by administrative and judicial authorities is at times out of sync with international standards
- ✗ Ability to secure adequate remedies for infringement, although improving, remains a critical challenge
- ✗ Substantial barriers to market access and commercialization of IP, particularly for foreign companies

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	0.4
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0
7. Regulatory data protection term	0.6	24. Regulatory and administrative barriers to commercialization	0
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0
9. Term of protection	0.53	26. Software piracy rates	0.3
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.5
11. Cooperative action against online piracy	0.5	28. Pre-established damages	0.5
12. Limitations and exceptions	0.25	29. Criminal standards	0.25
13. Digital rights management	0.25	30. Effective border measures	0
14. Government use of licensed software	0.5	31. Transparency and public reporting by customs	1
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0.5
17. Protection of well-known marks	0.5	34. Patent Law Treaty	0
18. Exclusive rights	0.5	35. Post-TRIPS FTA	0
TOTAL: 14.83			

Spotlight on the National IP Environment

Past Editions versus Current Scores

China's overall score in relation to the total possible score has remained the same at 42% (with a score of 14.83 out of 35 in the fifth edition). China did see a rise in score in relation to available damages for IP infringement as a result of a 2016 Judicial Interpretation outlining enhanced damage calculations for patent infringement. China also receives points from certain new indicators added in the fifth edition, particularly for the relatively strong level of transparency and public reporting by customs authorities on trade-related IP infringement. However, crucial gaps in the areas of industrial design protection and barriers to commercialization of IP assets hold China back from a further rise in score as a result of the 5 new indicators.

General Note

In 2016, the Chinese government issued a wide-ranging action plan on IP, the State Council's Opinions on Accelerating the Establishment of a Strong IPR Country. The plan reiterated proposals and ongoing efforts to enhance IP cooperation, promote growth of IP-intensive industries, and remove barriers to leveraging IP outside China, as well as improve the availability of remedies for IP infringement and issue further guidance on IP and competition.

Patents, Related Rights, and Limitations

2. Patentability requirements: In 2016, the State Intellectual Property Office (SIPO) issued proposed amendments to its patent examination guidelines. The amendments aim to address existing uncertainty in SIPO guidance and practice around the ability to submit post-filing experimental data in order to fulfill sufficiency of disclosure requirements, particularly in relation to life sciences patents. The guidance confirms that post-filing data is permitted if it supports a technical effect previously disclosed in the application. In addition, the amendments also clarify that business methods and computer-implemented inventions involving software may be considered patentable subject matter as long as they produce a technical effect and other patentability criteria are met. Depending on their final form and implementation, these amendments could help strengthen the patenting environment in China.

4. Pharmaceutical-related patent enforcement and resolution mechanism; and 7. Regulatory data protection term: The latest draft amendments to the Drug Registration Regulations removed provisions on patent enforcement and regulatory data protection (RDP). Patent enforcement and RDP are essential components in creating a regulatory system that promotes innovation. Without a patent enforcement system that includes an effective early dispute resolution mechanism (also known as patent linkage), it is unclear how marketing approvals for drugs will be handled before a patent expires.

Trademarks, Related Rights, and Limitations

17. Ability of trademark owners to protect their trademarks: requisites for protection; and 18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks: High-profile decisions in 2016 show interest by China's highest court to address key challenges in the registration of trademarks. Most recently, China's Supreme People's Court found that a Chinese sporting goods chain, Qiaodan Sports, filed the Chinese-language version of Michael Jordan's name in bad faith. The decision recognized the "high reputation" of Michael Jordan in China, taking into consideration evidence previously refused by the lower court. The Supreme People's Court also rejected the lower courts' "definitive association" standard and replaced it with a broader "stable association" standard. In cases for global brands Apple and Facebook, the Beijing High Court determined that the brands' well-known status did not apply in relation to opposing registrations of similar marks because the applications for these marks were filed, in the court's view, before the brands had achieved notoriety in China. However, in the Facebook case, the court ultimately rejected the opposed mark, given that the individual attempting to register it displayed signs of bad faith conduct.

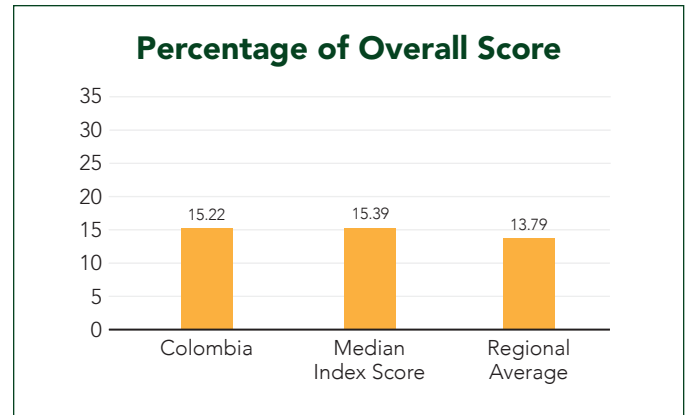
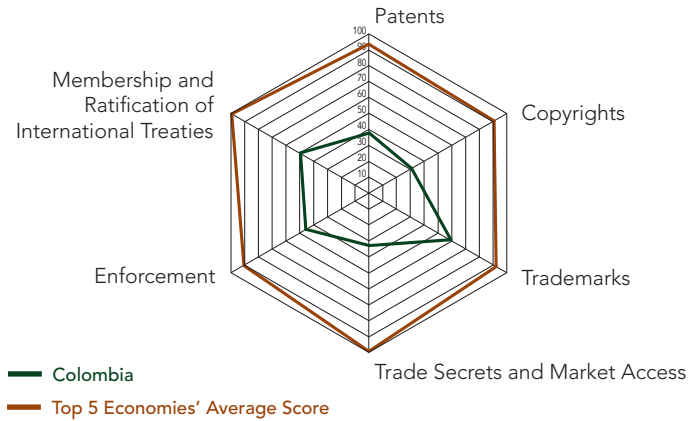
21. Legal measures available that provide necessary exclusive rights to redress the unauthorized use of industrial design rights: Chinese patent law provides for general exclusive rights for design patent holders. However, the standards for determining eligibility for design protection are considered to be fairly low (the law provides limited criteria for obtaining design protection and no substantive review takes place), leading to many low-value patents and a high rate of invalidations. According to local legal experts, this trend has also led to a growing incidence of design patent trolls and additional costs and uncertainty for multinational technology companies.

Trade Secrets and Market Access

- 23. Barriers to market access:** Revisions to the High and New Technology Enterprise regime issued in 2016 raise the criteria for IP ownership for companies seeking to qualify for a reduction in corporate income tax on the basis of R&D conducted in China. Under the revised rules, in order to benefit from a reduced corporate tax rate (15% instead of 25%), companies must locally own, rather than license, IP and the IP must be related to the company's core products and services. The heightened requirements for the transfer of IP present higher transaction costs and barriers to accessing the market, particularly for multinational companies.
- 24. Regulatory and administrative barriers to the commercialization of IP assets:** Technology companies face a growing number of regulatory and procedural barriers to licensing in China that impede technology flows and R&D cooperation. In general, licensing agreements must receive government approval. In addition, technology import/export regulations involve 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). In the context of standards-setting, there is also a trend toward greater administrative involvement in determining patent licensing terms and the ability to secure relief from infringement. The Anti-Monopoly Commission is preparing Anti-Monopoly Guidelines on the Abuse of Intellectual Property Rights, based on input from the three antimonopoly enforcement agencies. Draft Guidelines released by the individual enforcement agencies in 2016 raised serious concerns among industry regarding provisions that would impose antimonopoly sanctions on refusals to license and excessive pricing. In addition, draft patent amendments would allow for automatic licensing of Standard Essential Patents (SEPs) where a patent was not disclosed as part of participation in a national standard-setting process (although royalties would be negotiated separately). In the meantime, the new Judicial Interpretation on patent infringement allows a court to not issue injunctions in cases of infringement where it determines the patent holder has not followed fair, reasonable, and non-discriminatory (FRAND) license terms, and inadequate detail is provided concerning how this would be determined, leaving greater room for reverse patent hold up.

Enforcement

- 27. Civil and procedural remedies; and 28. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement:** The draft patent amendments issued by SIPO and under review in 2016 would increase statutory damages significantly from RMB10,000–RMB1 million to RMB100,000–RMB5 million (about USD750,000). In relation to damages, the Judicial Interpretation on patent infringement shifts the burden of proof to infringers and allows the release of evidence from infringers in order to promote a more accurate calculation of damages, resulting in a rise in score of 0.25 for indicator 28. Local statistics generated from court cases since 2014 indicate that currently, on average, damages awarded are about RMB80,000, which is considered too low to compensate patent holders adequately. At the same time, the draft patent amendments would expand administrative enforcement of patents, including extending the authority afforded to local IP offices (such as the ability to investigate and impose patent infringement penalties). Legal experts raise concerns that this may heighten existing uncertainty about the respective roles of administrative departments and courts and undermine effective enforcement.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Patent office efforts to streamline procedures, including a pilot PPH with the EU and a new online IP system
- ✓ Basic legal framework for major IP rights
- ✓ IP enforcement framework includes civil and criminal remedies and border measures
- ✓ Heightened efforts around IP capacity building among judiciary and customs agencies and improving IP information collection and sharing

Key Areas of Weakness

- ✗ Key life sciences IP rights missing or significantly undermined in application
- ✗ Use of the international compulsory license regime to leverage price reduction for biopharmaceuticals
- ✗ Persistent gaps in copyright framework specifically addressing the online environment
- ✗ Delayed, inadequate prosecution of IP rights and nondeterrent sentencing

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	0.4
3. Patentability of CILs	0.5	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0.25	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.25
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.48
9. Term of protection	0.84	26. Software piracy rates	0.5
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0	28. Pre-established damages	0.5
12. Limitations and exceptions	0.25	29. Criminal standards	0.5
13. Digital rights management	0	30. Effective border measures	0.5
14. Government use of licensed software	0.5	31. Transparency and public reporting by customs	0.5
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.5	34. Patent Law Treaty	0
18. Exclusive rights	0.5	35. Post-TRIPS FTA	1
TOTAL: 15.22			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Colombia's overall score has fallen substantially from 46% of the total possible score in the fourth edition (with a score of 13.77 out of 30) to 43% (15.22 out of 35) in the fifth edition. Although Colombia's score rose in relation to the patentability of computer-implemented inventions (with evidence of higher volumes and speedier patenting of computer-related patents), the drop in overall performance results from challenges about compulsory licensing and relatively low scores in new indicators, particularly in relation to patent opposition and licensing barriers. On a positive note, efforts to increase awareness and information on IP infringement have intensified over the past year and could lead to an improvement in the enforcement category in future editions of the Index.

Patents, Related Rights, and Limitations

5. Legislative criteria and active use of compulsory licensing of patented products and technologies: In 2016, the Ministry of Health and Colombian government actively considered (on the basis of a recommendation of an internal committee) issuing a compulsory license on the oncology drug Glivec owing to high prices. At the time of research, the Colombian government had issued a "Declaration of Public Interest" via Resolution 2475 and committed to unilaterally reducing the price of Glivec by about 45%. Although not progressing to the actual issuing of a compulsory license at the time of research, the above steps can be viewed as a manner of abusing the international compulsory licensing regime for price considerations even though no patient access concerns were cited. On the contrary, competing polymorph forms of the medicine are available on the Colombian market and the price for Glivec was set and reduced multiple times by the Colombian government under the existing price control regime in Colombia.

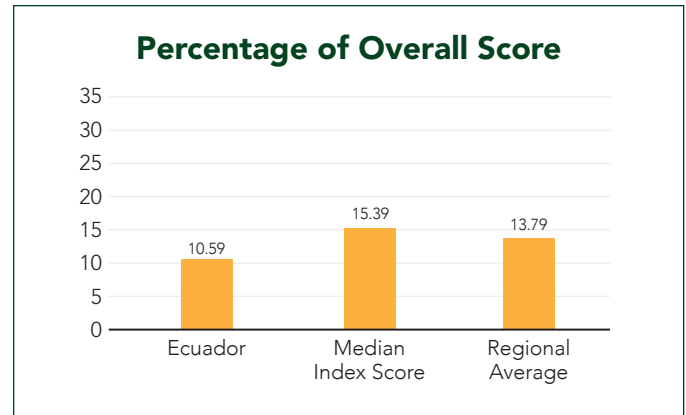
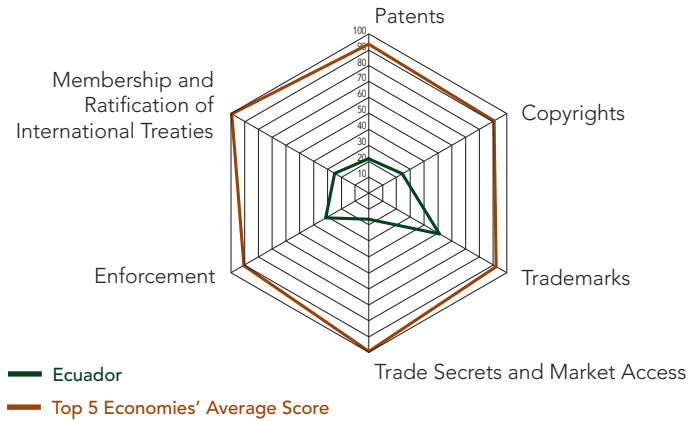
Copyrights, Related Rights, and Limitations

A new legislative attempt to update the 1982 Copyright Law took place in 2016 with the submission of a new reform attempt, "Ley Lleras 5," that would allow Colombia to partially comply with commitments made in its TPA with the U.S. Among other elements, the draft extends civil liability to the circumvention of TPMs as well as to the production and sale of circumvention devices, and allows the destruction of circumvention devices and infringing materials. In addition, the draft expands certain exclusive rights to authors and phonogram producers, including making available the right and protection of temporary copies. At the same time, the text also seeks to update copyright exceptions by adding exceptions for library and research use and for temporary electronic copies not involving commercial gain, among others. Moreover, it introduces statutory damages for copyright infringement (although the actual amounts must

be decided by decree) and would increase copyright protection to 70 years for works for hire as well as for phonograms and broadcasts. However, it falls short of addressing other key gaps in the online copyright regime, including in relation to ISP liability and assistance in taking down infringing content online.

Trade Secrets and Market Access

24. Regulatory and administrative barriers to the commercialization of IP assets: A number of barriers to the licensing of IP assets exist in Colombia. Colombian public sector researchers and university faculty are not allowed a second salaried income, limiting incentives for setting up new businesses through spin-offs or start-ups. Looking at outputs, relatively few universities derive significant forms of income from commercialization and commercial research services. In addition, Colombian law prohibits any nonprofit organization, including private universities, from engaging in commercial activities. Andean Community legislation also adds significant restrictions on agreements with foreign licensors, requiring the registration and evaluation of licenses by national authorities on the basis of subjective criteria regarding the so-called value of imported technologies.



Strengths and Weaknesses

Key Areas of Strength

- ✓ New five-year term of RDP defined in new 2016 law *Código Ingenios*
- ✓ Limited re-criminalization of IP rights through 2016 criminal law amendments
- ✓ Signed and acceded to WIPO Internet Treaties

Key Areas of Weakness

- ✗ *Código Ingenios* raises uncertainty about compatibility with current IP laws
- ✗ *Código Ingenios* limits number of renewable periods for trademark registrations, in violation of the TRIPS Agreement
- ✗ *Código Ingenios* imposes new limits on patentability and number of non-patentable subject matter
- ✗ Persistently high levels of piracy

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	0.4
3. Patentability of CILs	0	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.39
9. Term of protection	0.73	26. Software piracy rates	0.32
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0	28. Pre-established damages	0.25
12. Limitations and exceptions	0.25	29. Criminal standards	0.25
13. Digital rights management	0.25	30. Effective border measures	0.5
14. Government use of licensed software	0	31. Transparency and public reporting by customs	0.25
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.25	34. Patent Law Treaty	0
18. Exclusive rights	0.25	35. Post-TRIPS FTA	0
TOTAL: 10.59			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Ecuador's overall score has increased marginally from 29% (8.62 out of 30) in the fourth edition to 30% (10.59 out of 35) in the fifth edition. This change in score reflects a relatively mixed performance on the 5 new indicators added to the fifth edition.

General Comments

In October 2016, Ecuador's National Assembly passed the *Código Orgánico de Economía Social del Conocimiento, la Creatividad y la Innovación (Código Ingenios)*, a law that touches on all facets of IP rights. The law aims to encourage innovation, R&D, and the development of new technologies in Ecuador and contains a strong element of local preferences and discrimination against foreign companies. For example, Article 148 introduces a requirement and order of prioritization for public sector procurement of software. This article stipulates that software should be open source and/or contain a significant amount of local Ecuadorean value added in either its production or the provision of services. Foreign suppliers are discriminated over domestic producers and suppliers. The legislation also contains a number of negative provisions relating to existing patent laws and practices and trademarks. For example, Article 268 increases the number of non-patentable subject matter and Article 274 eliminates any patentability of second use inventions. While the latter is part of Andean Decision 486, this restriction had nevertheless not been codified previously in Ecuador's existing Intellectual Property Law. With regard to the protection of trademarks, the term of protection for trademarks has been amended under Article 365 with renewal periods limited to two renewals. This markedly stands in contrast to TRIPS Article 18, which states that "the registration of a trademark shall be renewable indefinitely." On a positive note, Article 509 contains a defined five-year term of regulatory data protection for biopharmaceutical test data. As noted in previous editions of the Index, the existing Intellectual Property Law contains an article on RDP but does not include a defined term of protection. At the time of research, the legislation had not yet officially become law and it remains unclear the extent to which this new legislation will interact with or override the existing Intellectual Property Law. Consequently, Ecuador's score has not been affected by this legislation for this edition of the Index.

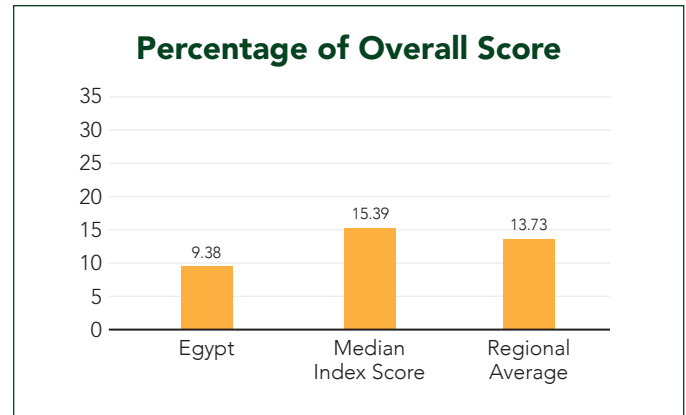
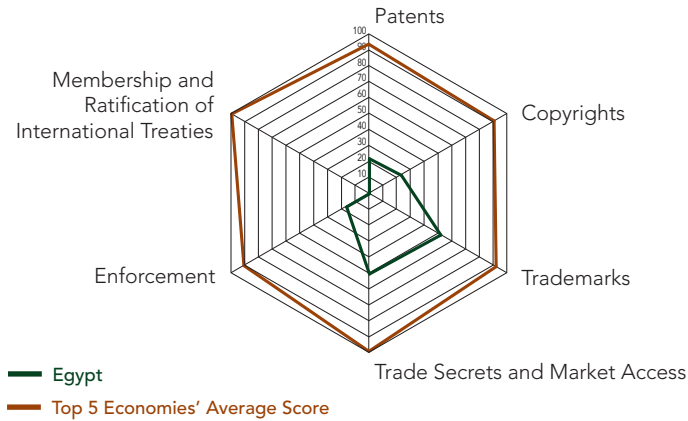
Patents, Related Rights, and Limitations

8. Patent opposition: Under the 2006 Intellectual Property Law and in line with its commitments under Andean Decision 486, Ecuador provides a legal mechanism for challenging the validity of a pending patent. The relevant Articles 142–145 of the law outline what is essentially a pre-grant opposition mechanism. Article 142 states that "within a period of 30 working days following the date of publication, anyone with a legitimate interest may, on one occasion only, file reasoned objections that may nullify the

patentability or ownership of the invention." Unlike Decision 486, Ecuador's Intellectual Property Law does not provide an overall maximum time limit on oppositions, whereas Article 44 of the Andean Decision provides a six-month maximum time limit. There is limited evidence on the practical use of the opposition mechanism in Ecuador and the effect it has on the swift and effective prosecution of patent applications. However, given the long general timelines for patent prosecution in Ecuador—local legal analysis suggests a typical patent takes six to eight years from filing to grant—the current pre-grant opposition format is unlikely to help reduce these timelines.

Enforcement

29. Criminal standards including minimum imprisonment and minimum fines: As noted in previous editions of the Index, 2013 amendments to the Intellectual Property Law removed criminal penalties and sanctions for IP rights infringement; as a result, Ecuador's enforcement environment stood firmly outside international standards. In late 2015, amendments to the Penal Code (*Código Orgánico Integral Penal*) were introduced with new limited sanctions put in place for the commercial infringement of trademarks and copyrights. Specifically, a new Article 208A was inserted to the code that provides minimum and maximum fines for commercial infringement of these IP rights. The new law provides statutory fines that, depending on the scale of commercial infringement, range from a minimum fine of roughly USD20,000 to a maximum fine of over USD100,000. The fines are calculated based on the "*salarios básicos unificados del trabajador en general*," which is a standard salary measurement set annually by the Ecuadorean government. In 2016, this unit was set at USD366 per month. Although reimposing criminal sanctions and fines for trademark and copyright infringement is a positive step for Ecuador, these new sanctions do not include imprisonment and the fines are inversely proportioned to the scale of the infringement, with small-scale infringement receiving a larger fine in proportion to the value of the infringement.



Strengths and Weaknesses

Key Areas of Strength

- ✓ As a WTO member, basic national IP framework in place
- ✓ Relative freedom to patent CILs and support from government agencies

Key Areas of Weakness

- ✗ Limited framework for protection of life sciences IP rights
- ✗ Gaps in copyright law and framework, particularly with regard to protection of content online
- ✗ High levels of piracy
- ✗ Challenging enforcement environment and lack of border measures
- ✗ Limited participation in international IP treaties

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.25	20. Industrial design term of protection	0.6
3. Patentability of CILs	0.5	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.75
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.26
9. Term of protection	0.38	26. Software piracy rates	0.39
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0	28. Pre-established damages	0
12. Limitations and exceptions	0.5	29. Criminal standards	0.25
13. Digital rights management	0.25	30. Effective border measures	0
14. Government use of licensed software	0	31. Transparency and public reporting by customs	0
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	0
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.25	34. Patent Law Treaty	0
18. Exclusive rights	0.25	35. Post-TRIPS FTA	0
TOTAL: 9.38			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

2. Patentability requirements; and 3. Patentability of computer-implemented inventions (CIIs): The 2002 Law 82 “Pertaining to the Protection of Intellectual Property Rights” provides definitions and standards for all IP rights including patents and patentability. Article 1 of Book One states that patents should be granted for inventions that are new, involve an inventive step, and are industrially applicable. Local legal analysis suggests that, unlike most patent offices, the Egyptian Patent Office does not allow second use claims in Swiss form or otherwise. Looking at the patentability of CIIs, some uncertainty about the current situation exists. Egypt promotes a system of software registration and protection for computer software under copyright, but the patenting of “programs” is not allowed under Law 82. However, practice suggests that CIIs are indeed granted. The Information Technology Industry Development Agency (part of the Ministry of Communications and Information Technology) directly supports and sponsors the filing of patents for CIIs in Egypt and abroad. And looking at patent applications in Egypt, WIPO statistics from 2000 to 2014 show computer technology filings as the third largest category of filing at the Egyptian Patent Office at 7.13% of the total. Still, survey evidence from a 2014 study by WIPO of the Egyptian ICT sector shows the use of IP rights to protect new technologies even within the software industry is currently underused. While 95% of participating small and medium-sized enterprises (SMEs) claimed they were creating IP assets that should be protected, only 25% actually did formally protect these assets through the use of IP rights.

4. Pharmaceutical-related patent enforcement and resolution mechanism: There is currently no mechanism that links the market authorization of a follow-on biopharmaceutical product with the exclusivity status of the reference product. Industry reports suggest that, since 2013, a number of follow-on products have been granted market authorization by the health authorities even though the reference product is under patent protection. Given the difficulties in enforcing IP rights through the Egyptian court system—Egypt ranked 104 out of 113 countries on availability of civil justice and enforcement on the 2016 World Justice Project’s Rule of Index—the lack of a linkage mechanism means rights holders have a very limited ability to protect and defend their IP from infringement.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); and 13. Digital rights management (DRM) legislation: Book 3 of Law 82 provides standard exclusive rights. The

law does not provide specific remedies or rights within an online or digital context. For example, the law does not include any notification and takedown system in place for online infringement, and Article 181 of the law contains only rudimentary DRM protection measures and technological protection measures with, for instance, distribution not listed as an offense.

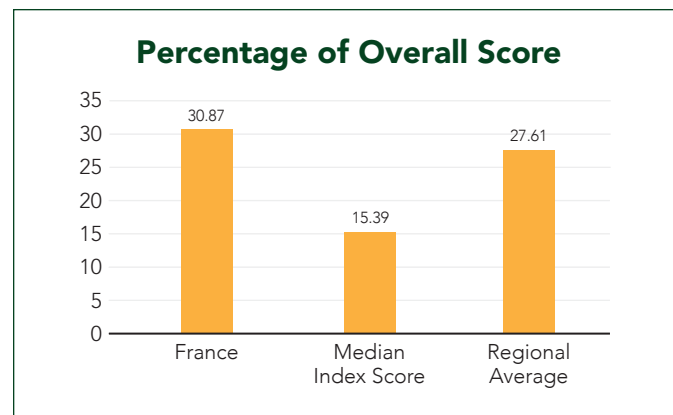
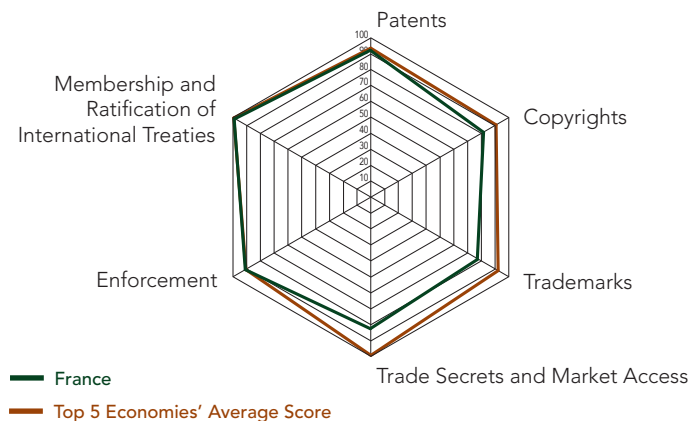
Enforcement

26. Software piracy rates; 27. Civil and procedural remedies; 28. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement; and 29. Criminal standards including minimum imprisonment and minimum fines: Rights holders face a challenging environment for enforcing IP rights in Egypt. Civil remedies, criminal standards, and mechanisms for determining damages are in place but are relatively low and not consistently applied or enforced. Basic civil remedies are in place for the infringement of all IP rights including the issuing of injunctions and the seizure of profits and infringing goods, but enforcement is difficult because, as mentioned, Egypt’s court system is overburdened. Criminal sanctions are available under existing copyright and trademark laws, but these sanctions are relatively lenient; for example, businesses engaging in infringement can be ordered closed, but only for a maximum period of six months. Levels of physical counterfeiting and online piracy are high. The Business Software Alliance estimates that Egypt’s software piracy rate is 61%; this has remained virtually unchanged since 2009. Estimated rates of physical counterfeiting are also high; for example, EU customs lists Egypt as the top country of origin for counterfeit goods.

30. Effective border measures; and 31. Transparency and public reporting by customs authorities of trade-related IP infringement: *Ex officio* action is not explicitly provided by Customs Law or the 2005 “Executive Regulation to Implement Import and Export Law” (No. 770/2005). Egyptian customs authorities do not use a centralized recording system. Existing procedures require rights holders to notify customs in advance of specific suspected shipments and provide evidence of infringement of their IP rights. Local legal analysis suggests that border measures do not extend to goods in transit; Egyptian IP law relates only to goods intended for the Egyptian market.

Membership and Ratification of International Treaties

Egypt is not a contracting party to any of the IP treaties included in the Index. The 2001 EU-Egypt Association Agreement contains limited references to IP rights.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Criminal sanctions against counterfeiting strengthened in 2016
- ✓ Strong and sophisticated national IP environment
- ✓ Sector-specific IP rights in place, such as regulatory data protection and patent term restoration

Key Areas of Weakness

- ✗ Continued uncertainty over enforcement of copyright online and the HADOPI agency
- ✗ Plain packaging introduced in first quarter of 2016
- ✗ Still relatively high estimated software piracy rates for a high-income OECD economy at 34% in 2015

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	1	20. Industrial design term of protection	1
3. Patentability of CIs	1	21. Exclusive rights, industrial design rights	1
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.75
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.74	25. Physical counterfeiting rates	0.72
10. Exclusive rights	0.75	26. Software piracy rates	0.66
11. Cooperative action against online piracy	0.75	27. Civil and procedural remedies	1
12. Limitations and exceptions	1	28. Pre-established damages	1
13. Digital rights management	1	29. Criminal standards	1
14. Government use of licensed software	0.75	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	0	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	1	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	1
		35. Post-TRIPS FTA	1
TOTAL: 30.87			

Spotlight on the National IP Environment

Past Editions versus Current Scores

France's overall score has decreased from 90.7% (27.22 out of 30) in the fourth edition to 88.2% (30.87 out of 35) in the fifth edition. Although this score reflects a strong performance in the 5 new indicators added in the fifth edition, the introduction of plain packaging for tobacco products has resulted in a reduction of France's score by 1 point.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking):

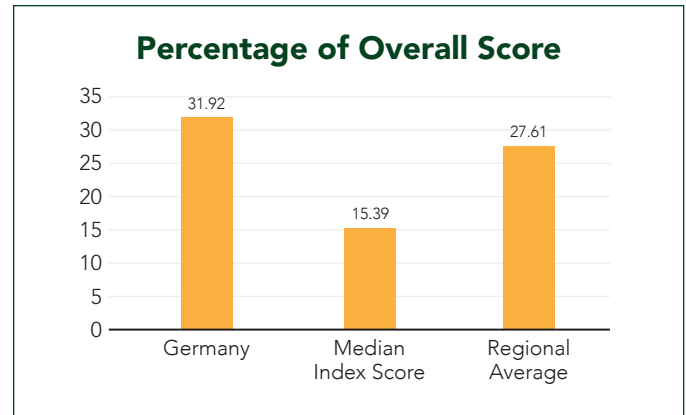
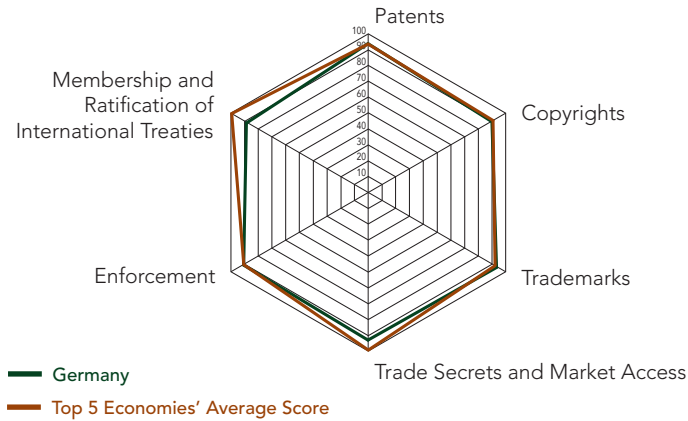
(including Web hosting, streaming, and linking): As discussed in previous editions of the Index, the antipiracy institutional setting came under increased scrutiny when an amendment to dismantle HADOPI (the independent agency charged since 2010 with implementing a three-strike regime against copyright infringers) was initially adopted by the French National Assembly but later removed by the Senate. This followed publication by the Senate of a report on independent administrative authorities that found HADOPI's graduated response mechanism inadequate to curb online piracy. From 2010 to 2015, more than 5.4 million infringement notices had been delivered, with 504,000 account holders receiving a second notice and 2,900 receiving a third one, and about 400 more serious cases reported for prosecution. However, many of these reportedly were archived or resulted in a "reminder of the law." The number of cases reported for prosecution increased considerably from June 2015 to June 2016, with more than 600 in that 12-month span. The French Administrative Supreme Court (*Conseil d'Etat*) ordered the prime minister to take regulatory measures to indemnify ISPs and granted one of them EUR900,000 in compensation for the costs incurred in implementing HADOPI's system. No decree had been published at the time of research, but the agency's budget has been increased, possibly to cover these new costs. Dismantling HADOPI was first included in President Hollande's electoral campaign agenda in 2012, together with a reform of the copyright remuneration system. Acting on this second issue, in June 2016 the French Parliament adopted a bill on "Freedom of Creation, Architecture, and Heritage." The bill remains mostly silent on the online environment, with the noticeable exception of demanding search engines to pay royalties for indexing images online. Last, the bill "For a Numerical Republic" adopted in October 2016, which introduces into French law a freedom of panorama exception, did not adopt an amendment proposing a proactive role by intermediaries against piracy and counterfeit online; however, the issue remains under discussion in the framework of the EU copyright reform.

Trademarks, Related Rights, and Limitations

16. Discrimination/restrictions on the use of brands in the packaging of different products: Plain packaging legislation (Law N. 2016-41) was adopted in 2015 and entered into force in 2016. Starting from this date, tobacco products in France are sold in logo-free packages and brand names appear in a small, uniform typeface, as defined by Decree No. 2016-334 of March 2016. France's Constitutional Council upheld the validity of Law N. 2016-41 in January 2016. The introduction of this measure significantly restricts the use of brands, trademarks, and trade dress on retail packaging, undermining the benefits of trademarks to businesses and consumers alike, and sets a negative precedent for IP policy. The passage and implementation of this legislation has decreased France's score on this indicator from 1 to 0.

Enforcement

29. Criminal standards including minimum imprisonment and minimum fines: Article 44 of Law 731-2016 stiffens remedies for organized counterfeit activities. Organized counterfeiters can be punished with up to seven years in prison and a fine of up to EUR750,000 (instead of five years and EUR500,000, respectively).



Strengths and Weaknesses

Key Areas of Strength

- ✓ 2015 court ruling confirms ISPs' obligation and duty of care with regard to suspected copyright infringement
- ✓ Advanced and sophisticated national IP environment
- ✓ Sector-specific IP rights in place, such as regulatory data protection and patent term restoration
- ✓ Legal measures in place to address unauthorized use of trademarks

Key Areas of Weakness

- ✗ Damages awarded historically not adequate
- ✗ Patent Law Treaty signed but not ratified

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	1	20. Industrial design term of protection	1
3. Patentability of CIs	1	21. Exclusive rights, industrial design rights	1
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.63	25. Physical counterfeiting rates	0.76
10. Exclusive rights	1	26. Software piracy rates	0.78
11. Cooperative action against online piracy	1	27. Civil and procedural remedies	1
12. Limitations and exceptions	0.75	28. Pre-established damages	0.75
13. Digital rights management	1	29. Criminal standards	1
14. Government use of licensed software	1	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	1	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	0.5
		35. Post-TRIPS FTA	1
TOTAL: 31.92			

Spotlight on the National IP Environment

Past Editions versus Current Scores

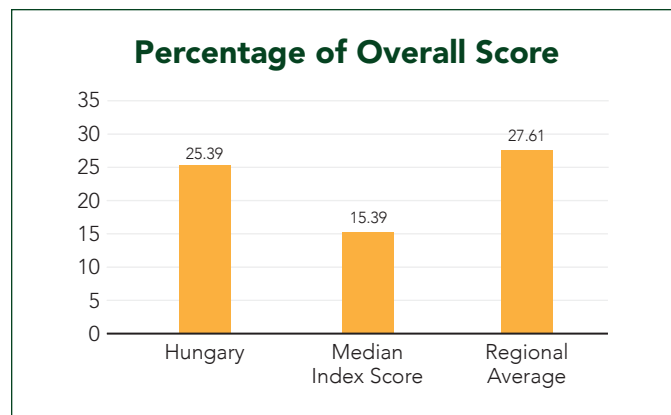
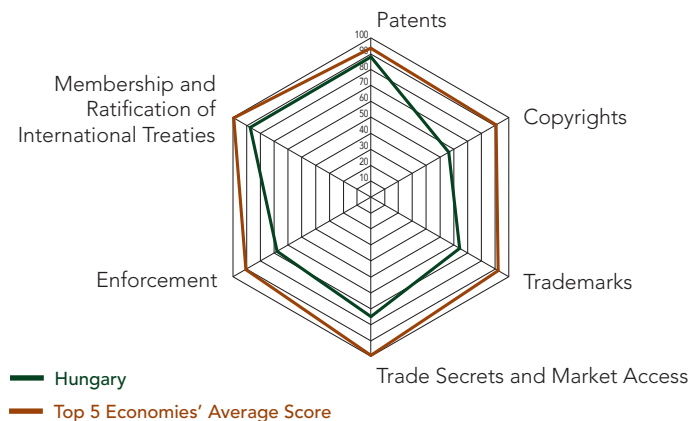
Germany's overall score has stayed exactly the same: 91.2% (27.36 out of 30) for the fourth edition and 91.2% (31.92 out of 35) in the fifth edition. This score reflects a strong performance in the 5 new indicators added to the fifth edition.

Copyrights, Related Rights, and Limitations

11. Availability of frameworks that promote cooperative action against online piracy: Against a background of EU and national reforms, copyright was at the center of IP rights development in 2016 in Germany. Notably, a landmark decision by the Federal Court of Justice from November 2015 has extended the duty of care by ISPs to blocking websites whose content is predominantly illegal. The court reasoned that where a global assessment of the site reveals that the lawful content is a negligible amount compared with the unlawful content, the provider must take down the site and have a further duty of care to prevent the repetition of the specific clear infringement—the so-called indirect liability concept of “*Stoererhaftung*.” However, this duty of care comes with a caveat that makes its future application difficult to predict; that is, that the rights holders have exhausted other ways of pursuing infringers before resorting to ISPs blocking the relevant content. In a previous decision from 2015, the Hamburg Court of Appeal found YouTube liable of this extended indirect liability because, unlike other hosting providers, it offers a platform that makes third-party content attractive for users. But another court, the Higher Court of Munich, found that no damages can be claimed on the basis of this indirect liability, and rejected the request by rights holders against YouTube.

Trade Secrets and Market Access

24. Regulatory and administrative barriers to the commercialization of IP assets: In the realm of technology standardization, SEP licensing terms have come under increased scrutiny in recent years from both EU courts and regulators. For several years, European regulators have engaged in different efforts to coordinate and harmonize the standardization process, including in relation to setting licensing terms. Courts have also weighed in; in one recent landmark case, the European Court of Justice's opinion in *Huawei v. ZTE* detailed procedural aspects of FRAND negotiations in the EU. According to these guidelines, SEP holders seeking an injunction should, among other elements, present the implementer with a written offer on FRAND terms that specifies all relevant terms including the royalty. However, the court's involvement to date has not extended to how to determine royalty rates.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Strong and sophisticated IP system conferred through EU membership
- ✓ Sector-specific IP rights in place such as regulatory data protection and patent term restoration

Key Areas of Weakness

- ✗ Challenging enforcement environment—particularly with regard to online and digital content
- ✗ One of the highest levels of video game piracy in the world
- ✗ High level of physical counterfeiting
- ✗ Plain packaging for tobacco products introduced in 2016

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	0.75	20. Industrial design term of protection	1
3. Patentability of CIs	0.75	21. Exclusive rights, industrial design rights	0.75
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.63	25. Physical counterfeiting rates	0.64
10. Exclusive rights	0.5	26. Software piracy rates	0.62
11. Cooperative action against online piracy	0.5	27. Civil and procedural remedies	0.5
12. Limitations and exceptions	0.75	28. Pre-established damages	0.5
13. Digital rights management	0.5	29. Criminal standards	0.5
14. Government use of licensed software	0.5	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	0	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	1
18. Exclusive rights	0.75	33. Singapore Treaty on the Law of Trademarks	0.5
TOTAL: 25.39			
		34. Patent Law Treaty	1
		35. Post-TRIPS FTA	1

Spotlight on the National IP Environment

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); 11. Availability of frameworks that promote cooperative action against online piracy; and 13. Digital rights management (DRM) legislation: Protecting copyrighted material—especially from online piracy—has long been a challenge for rights holders in Hungary. Article 77 of the revised Criminal Code states that criminal material disclosed through an electronic communications network shall be rendered irreversibly inaccessible. Although this article does apply to cases of IP rights infringement, relatively limited case law exists. The Hungarian E-Commerce Act provides a clear and timely notification and takedown procedure, whereby ISPs have 12 hours to remove the allegedly infringing content, as well as safe harbor mechanisms for ISPs. Although the original formulation refers mostly to copyright infringement, ISP liability was recently under the spotlight in Hungary, mainly with regard to defamatory and hateful content. Surveys and academic research suggest that Hungary has one of the highest rates of copyright infringement of all EU member states. For example, even though the Copyright Act sanctions all major aspects of TPM circumvention and DRM alteration (Articles 95 and 96), academic research of video game piracy suggests that Hungary constitutes a disproportionate share of global video game piracy. According to a study on Bit Torrent conducted by academics from Aalborg University, the University of Waterloo, and Copenhagen Business School, Hungary was a top-5 country with the highest video game piracy user rate as a percentage of its population.

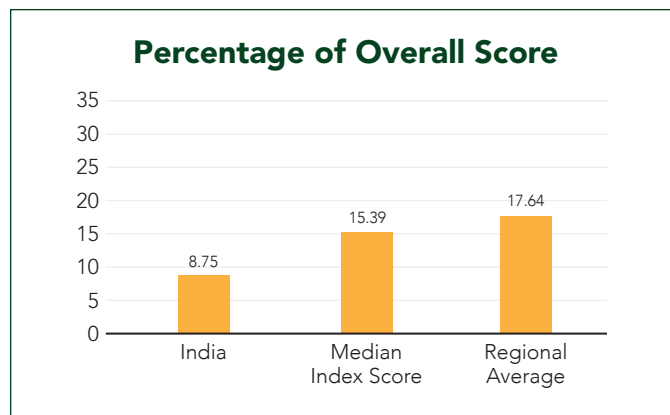
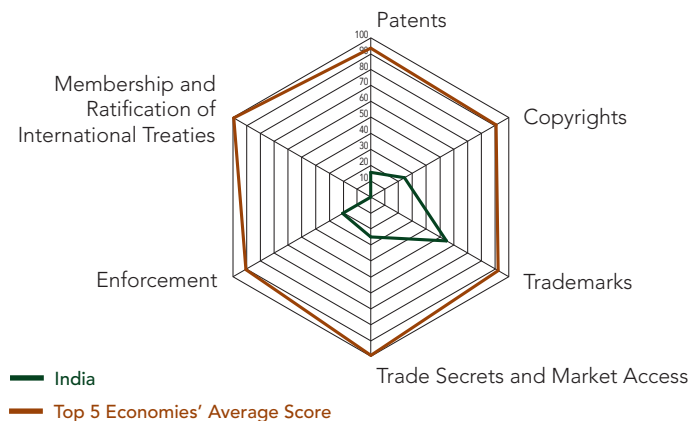
Trademarks, Related Rights, and Limitations

16. Discrimination/restrictions on the use of brands in the packaging of different products: In 2016, Hungary amended Government Decree 39/2013 (of 14 February 2013) on the Manufacture, Placement on the Market, and Control of Tobacco Products, and from May 2016 has introduced plain and brand-neutral packaging for tobacco products. The amended decree applies immediately to any new products introduced onto the Hungarian market. Products already on the market have received a reprieve until 2019. The introduction of this measure significantly restricts the use of brands, trademarks, and trade dress on retail packaging—undermining the benefits of trademarks to businesses and consumers alike—and sets a negative precedent for IP policy. The passage and implementation of this legislation has resulted in Hungary receiving a score of 0 on this indicator.

19. Availability of frameworks that promote cooperative action against the online sale of counterfeit goods: Physical counterfeiting and the availability of counterfeit goods is a major challenge in Hungary, particularly the availability of counterfeit medicines. Since January 2015, websites that sell fake or prohibited medicines can be taken down for 90 days by order of the National Institute for Quality and Organizational Development in Healthcare and Medicines, in line with paragraph 20/A of the Hungarian Act 95 of 2005 on Medicinal Products for Human Use. The website owner has 24 hours to comply; noncompliance results in a fine. The institute can display the name of the infringing websites for up to 90 days and can report the infringement to the authorities.

Enforcement

27. Civil and procedural remedies; 28. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement; and 29. Criminal standards including minimum imprisonment and minimum fines: The protection available to IP rights holders in Hungary is often hindered by gaps in enforcement and availability of key remedies. The Criminal Code provides for prison terms of up to 10 years for infringements with a particularly substantial financial loss, but no fines. Also, no punitive damages are in place and local legal analysis suggests that high amounts of damages are difficult to obtain and their calculation highly unpredictable. Indeed, despite the existence of these relatively strong criminal penalties, Hungary continues to suffer from a lack of deterrent sentences. According to the latest edition of a National Board Against Counterfeiting yearly survey, low prices and a lack of deterrent effect from penalties continue to fuel consumers' decision to buy counterfeits. About a third of young people surveyed admitted having done so at least once in the previous year. The negative impact on the Hungarian economy is significant. As reported by the European Union Intellectual Property Office (EUIPO) Observatory, Hungary is, after Romania, the EU economy that lost the most from sales of counterfeit handbags and luggage (28.5% out of total national sales); the 3rd most for drugs and jewelry (13.1% and 16.9% of total sales, respectively); and the 4th most for toys and games (19% of total sales).



Strengths and Weaknesses

Key Areas of Strength

- ✓ New *National Intellectual Property Rights Policy* recognizes several key gaps in India, including the need for stronger enforcement of existing IP rights, the need for stronger administrative capacities at India's IP offices, and the need for a trade secrets law

Key Areas of Weakness

- ✗ Overall, *National Intellectual Property Rights Policy* does not address fundamental weaknesses in India's IP framework
- ✗ Limited framework for protection of life sciences IP
- ✗ Patentability requirements outside international standards
- ✗ Lengthy pre-grant opposition proceedings in place
- ✗ 2016 High Court ruling on copyright infringement in the University of Delhi copy-shop case continues to weaken the enforcement environment for rights holders
- ✗ Previously used compulsory licensing for commercial and nonemergency situations
- ✗ Limited participation in international IP treaties

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0	20. Industrial design term of protection	0.6
3. Patentability of CILs	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.25
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.47	25. Physical counterfeiting rates	0.26
10. Exclusive rights	0.25	26. Software piracy rates	0.42
11. Cooperative action against online piracy	0.25	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0	28. Pre-established damages	0
13. Digital rights management	0.25	29. Criminal standards	0.25
14. Government use of licensed software	0.25	30. Effective border measures	0.25
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.25	32. WIPO Internet Treaties	0
18. Exclusive rights	0.25	33. Singapore Treaty on the Law of Trademarks	0
TOTAL: 8.75			
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0

Spotlight on the National IP Environment

Past Editions versus Current Scores

India's overall score has increased marginally from 24% (7.05 out of 30) in the fourth edition to 25% (8.75 out of 35) in the fifth edition. This change in score reflects a relatively mixed performance in the 5 new indicators added in the fifth edition.

General Comments

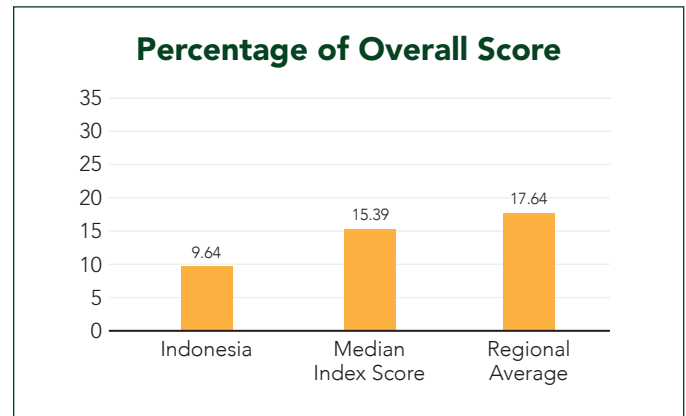
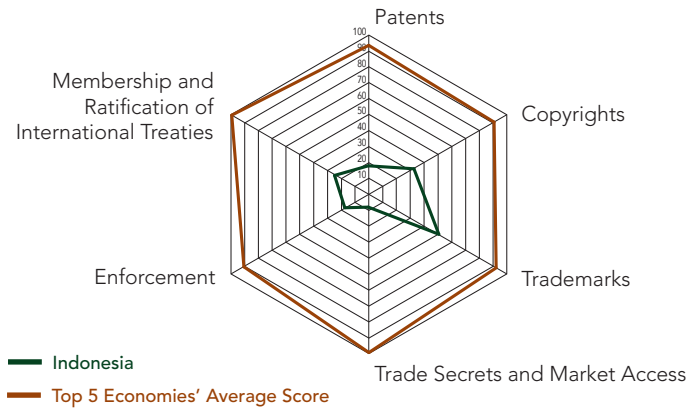
In May 2016, the Ministry of Commerce and Industry and the Department of Industrial Policy and Promotion released the long-awaited National Intellectual Property Rights Policy. This document outlines the strategic direction and policy goals of the Indian government with respect to the protection of IP for the foreseeable future. Of note is that the Policy addresses a number of important gaps in India's national IP environment, including the need for stronger enforcement of existing IP rights by building new state-level IP cells and investing more resources in existing enforcement agencies; strengthening administrative capacities at India's IP offices including by reducing processing times for patent and trademark applications; and the need to introduce a legislative framework for the protection of trade secrets. And while comprehensive reform and execution in these areas would mark a notable improvement to India's national IP environment, the Policy dismissed the need for more extensive legislative reform. Specifically, it did not address the challenges and uncertainties rights holders face when it comes to protecting their patent rights (particularly in the biopharmaceutical sector), modernizing existing copyright laws, or introducing international best practices and new sector-specific IP rights such as regulatory data protection for submitted biopharmaceutical test data.

Patents, Related Rights, and Limitations

8. Patent opposition: Section 25 of the Patents Act outlines the procedures and requirements for initiating opposition proceedings. The law provides for both pre- and post-grant oppositions. The procedures are similar; the key difference is that pre-grant opposition can be initiated by "any person" whereas post-grant opposition must be initiated by an interested party. The pre-grant opposition mechanism in India has long been criticized for adding significantly to the already lengthy patent prosecution timelines in India. In particular, local legal opinion suggests that pre-grant opposition and the right of the applicant to, for example, request a hearing, causes undue delays. The most recent 2016 statistics suggest that 98% of patents granted in India in 2015 were for applications over 5 years old. In one case, it took 19 years to prosecute and grant a patent.

Copyrights, Related Rights, and Limitations

12. Scope of limitations and exceptions to copyrights and related rights: On September 16, 2016, the High Court of Delhi issued a final judgment in the long-running court case between some of the world's leading academic publishers (including both Oxford and Cambridge University presses and Taylor & Francis) and the University of Delhi and a local photocopy shop. The case was first launched in 2012 with the publishers suing both the University of Delhi and the copy shop for infringement and enabling copyright infringement. The rights holders argued that the university had not only allowed the operation of the copy shop on its premises but outsourced the production of university course materials to it. In so doing, it had gone beyond any reasonable interpretation of educational exceptions to copyright. The September 2016 judgment dismissed the lawsuit, with the judge stating: "Copyright, especially in literary works, is thus not an inevitable, divine, or natural right that confers on authors the absolute ownership of their creations. It is designed rather to stimulate activity and progress in the arts for the intellectual enrichment of the public." The judgment did not only not find anything wrong with the university providing a photocopied master-copy of course texts for students to photocopy themselves in the university library, but it also did not object to the obvious commercial gain derived from the copy shop by providing this service to university students and staff. The judgment underlines the challenging environment rights holders and creators face in protecting their IP not only in court but more broadly and across all major forms of content in India. Only a few days prior to the judgment and in an unrelated matter, Bollywood actor Rajeev Khandelwal commented on the impact piracy is having in India and specifically on a prerelease leak and pirating of a number of Indian feature films. He said: "Piracy means you are killing an industry. ... If this continues, filmmakers will fear investing money in a film, people will start losing jobs, and the industry will fade away."



Strengths and Weaknesses

Key Areas of Strength	Key Areas of Weakness
<ul style="list-style-type: none"> ✓ New Trademark and Geographic Indications Law passed that strengthens existing criminal sanctions for trademark infringement 	<ul style="list-style-type: none"> ✗ New patent law fundamentally weakens Indonesia's national IP environment ✗ New patent law contains heightened efficacy requirement targeting biopharmaceuticals ✗ Parallel importation has been introduced in new patent law targeting biopharmaceuticals ✗ New patent law also includes an ill-defined requirement for technology transfer of all patented technologies and processes in Indonesia ✗ Limited framework for protection of life sciences IP ✗ History of using compulsory licensing for commercial and nonemergency situations ✗ Challenging copyright environment with high levels of piracy ✗ Limited participation in international IP treaties

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0	20. Industrial design term of protection	0.4
3. Patentability of CIs	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.31
9. Term of protection	0.52	26. Software piracy rates	0.16
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0.5	28. Pre-established damages	0
12. Limitations and exceptions	0.25	29. Criminal standards	0.25
13. Digital rights management	0.25	30. Effective border measures	0.25
14. Government use of licensed software	0.25	31. Transparency and public reporting by customs	0
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.25	34. Patent Law Treaty	0
18. Exclusive rights	0.25	35. Post-TRIPS FTA	0
TOTAL: 9.64			

Spotlight on the National IP Environment

Past Editions versus Current Scores

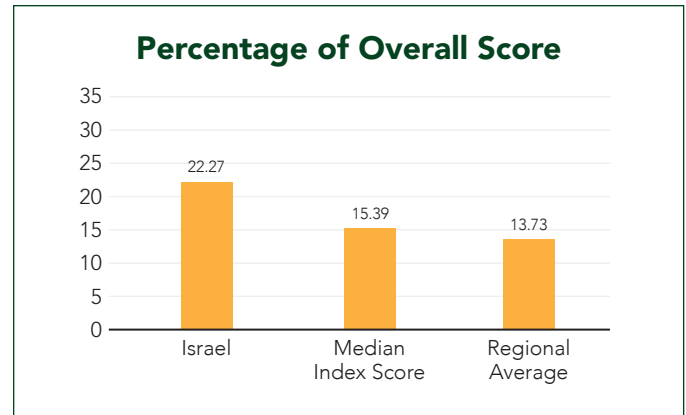
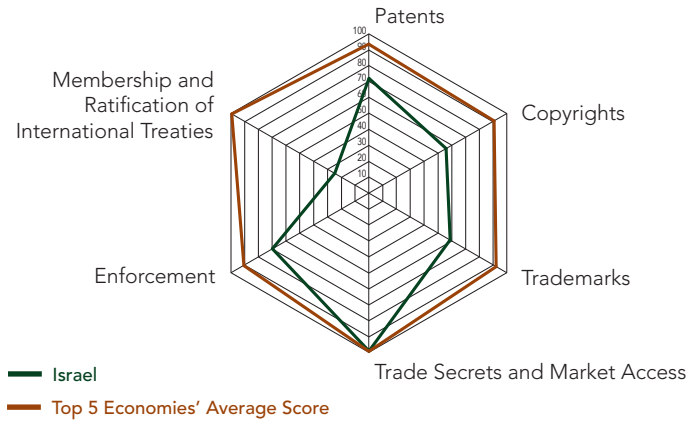
Indonesia's overall score has decreased from 28.6% (8.59 out of 30) in the fourth edition to 27.5% (9.64 out of 35) in the fifth edition. This drop in score reflects a relatively weak performance in the 5 new indicators added in the fifth edition and a deterioration of the environment as it relates to Category 1: Patents, Related Rights, and Limitations and the new patent law.

Patents, Related Rights, and Limitations

1. Patent term of protection; 2. Patentability requirements; and 3. Patentability of computer-implemented inventions (CIIs): In 2016, the Indonesian Parliament (People's Representative Council) finally passed a new, wide-ranging patent law (Law 13 2016). Although it aims to strengthen Indonesia's innovation infrastructure and to encourage more high-tech economic development through the creation and use of new technologies, overall the law does not improve what was already a challenging patenting environment. First, Article 4 inserts a new heightened efficacy requirement that targets biopharmaceutical products and outlaws second use claims. The new efficacy standard is not comprehensively defined, with the sole example cited being for antibiotics. In a further effort to target biopharmaceutical innovation, Article 167 allows for parallel importation of follow-on products under patent protection in Indonesia but approved for consumption in other markets. The law explains that this importation is to target the cost of medicines, particularly where prices in Indonesia are judged to be higher than the "international market." No details are provided as to what constitutes a "higher price" or the "international market." This law adds significant uncertainty and raises serious questions about the extent basic patent protection is afforded to biopharmaceutical products in Indonesia. More broadly, Article 20 of the law mandates that all patent rights holders "make" the patented product or process within Indonesia. Subsection (2) of this article states that this production should support Indonesia's industrial and development policies, specifically the "transfer of technology, investment absorption and/or employment." No further details are provided about the meaning or legal definition of "make" in this context. As discussed in previous editions of the Index, Indonesia has had in place a number of localization requirements that target certain industrial sectors (most notably the biopharmaceutical sector), but it would seem that this new requirement has broadened this mandatory localization to any patented technology. In one notable positive development, the new patent law does allow a limited form of patenting of CIIs. The explanation to Article 4(3) seems to suggest that patents will be allowed when they fulfill a technical effect or problem-solving requirement.

Trademarks, Related Rights, and Limitations

17. Ability of trademark owners to protect their trademarks: requisites for protection; and 18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks: 2016 saw a number of important developments with respect to the protection of trademarks in Indonesia. In October 2016, a new Trademark and Geographic Indications law was passed. Although it primarily focuses on expanding the realm of protection for trademarks to nontraditional trademarks (including sound holograms and 3-D marks) and improving the speed and administration of trademark applications, the law also strengthened existing enforcement mechanisms. Specifically, Article 100 strengthens existing criminal sanctions against trademark infringement. Fines have been increased to a maximum of IDR2–5 billion (about USD150,000–380,000) and prison sentences to between 4 and 10 years. The higher fines and sentences are applicable only in cases in which the infringing goods have led to public health issues, death, or environmental damage. This is a positive development, given the relatively high level of counterfeit medicines in Indonesia. Unfortunately, a number of negative developments increased the already high level of uncertainty about the protection of well-known marks. Two decisions by the Supreme Court of Indonesia entrench the difficulties that rights holders face in protecting their registered and well-known marks from rival and potential bad faith registrations and subsequent use. In September 2016, the court rejected the claims of designer Pierre Cardin that a local company was infringing its trademark. The local company had filed a similar trademark in the late 1970s incorporating the Pierre Cardin name, whereas the French designer had only registered its trademark in Indonesia in 2009. In a different case, the Supreme Court held that Swedish furniture giant IKEA's locally registered trademarks were not valid as they had not been used for a period of 3 years. The challenge of nonuse came from a local furniture company that requested to file its own trademark acronym "IKEA," which is short for Intan Khatulistiwa Esa Abadi.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Proposed changes to copyright law would fill an existing gap in Israel's copyright framework
- ✓ Ministry of Justice consultation on reforming patent opposition proceedings would have a positive effect on what is a long-standing challenge to inventors
- ✓ Life sciences IP rights reform efforts have considerably strengthened Israel's IP environment
- ✓ Strong protection for CII
- ✓ *Ex officio* customs authority and strong customs agency

Key Areas of Weakness

- ✗ Current pre-grant patent opposition proceedings are characterized by long delays to patent prosecution
- ✗ Unclear the extent to which current RDP applies to large-molecule products
- ✗ Online copyright framework lacking—limited notice and takedown and no DRM laws
- ✗ Limited participation in international IP treaties

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	1	20. Industrial design term of protection	0.4
3. Patentability of CII	1	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	0.3	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.73
9. Term of protection	0.63	26. Software piracy rates	0.71
10. Exclusive rights	0.5	27. Civil and procedural remedies	0.75
11. Cooperative action against online piracy	0.25	28. Pre-established damages	0.75
12. Limitations and exceptions	1	29. Criminal standards	0.75
13. Digital rights management	0	30. Effective border measures	0.75
14. Government use of licensed software	1	31. Transparency and public reporting by customs	0.5
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	0.5
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.75	34. Patent Law Treaty	0.5
18. Exclusive rights	0.75	35. Post-TRIPS FTA	0
TOTAL: 22.27			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Israel's overall score has decreased from 66% (20.06 out of 30) in the fourth edition to 64% (22.27 out of 35) in the fifth edition. This drop in score reflects a relatively weak performance in the 5 new indicators added in the fifth edition including patent-related opposition proceedings.

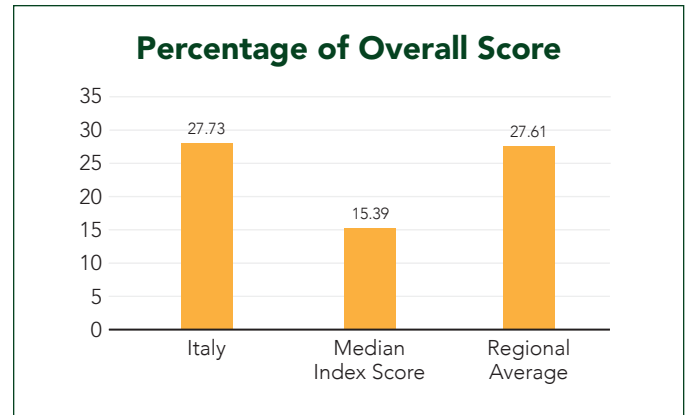
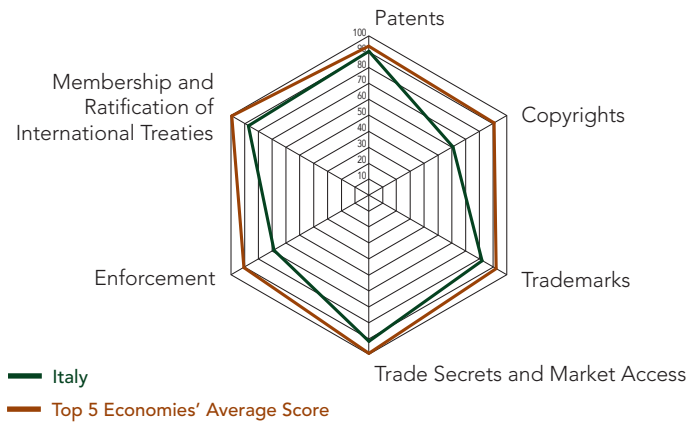
Patents, Related Rights, and Limitations

8. Patent opposition: Israeli patent law provides for a pre-grant form of opposition to pending patent applications. The examination of a patent application's eligibility for registration is conducted by the Israeli Patent Office within a time frame of 18 months from the filing date, upon which the application is published online for public scrutiny. Once published, a period of 3 months is granted during which third parties are permitted to file an opposition to the patent application. Upon filing of a notification of opposition, a period of 13 months is granted to the opposing party to submit the causes, arguments, and supporting evidence for the opposition, and for responses by both parties. Thus, the examination of a patent application can be extended by an additional 16 months, not including the process of reexamination and/or judicial hearings. Regardless of the merits of any opposition filing, these generous timelines add a significant burden and delay to the patent prosecution process in Israel. In a positive move, the Ministry of Justice in fall 2016 published a public call for comments and suggestions regarding its intention to review the existing pre-grant system. This marks a potential shift and recognition by Israeli policymakers of the costs the pre-grant system imposes on inventors and Israeli consumers.

to obtain a court order for restricting access to a website with pirated content, and to reveal the identity of the violator. In addition, making pirated works publicly available with the intention of profit-making activities would be regarded as a criminal activity. Although not entirely in line with international best practices—given the millions of infringements taking place online every day, requiring a court order for the disabling of access to a website with pirated content would impose a severe practical restriction on the availability of this mechanism to rights holders—these legislative developments would nevertheless be welcome and would increase Israel's score on this indicator.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); and 11. Availability of frameworks that promote cooperative action against online piracy: The protection of copyright online has long been a challenge for rights holders in Israel. As noted in previous editions of the Index, Israel is one of the few high-income OECD economies in which no specific legal framework is in place with regard to notice and takedown mechanisms or other administrative or regulatory mechanisms to effectively enforce copyright and related rights in the online environment. In 2016, the Ministry of Justice made public new draft legislation amending the Copyright Act and Ordinance, which would address many of these gaps and strengthen copyright protection in Israel. The proposed amendment includes the expansion of indirect violation of copyrights to make pirated works publicly available online, to make it possible



Strengths and Weaknesses

Key Areas of Strength

- ✓ Fairly advanced national IP framework
- ✓ Major life sciences IP rights in place
- ✓ Established doctrine of trade secret, trademark, and design protection, including well-known marks
- ✓ Rise in activity and effectiveness of administrative and judicial efforts in copyright enforcement

Key Areas of Weakness

- ✗ Remaining gaps in copyright legislation, including uncertainties over copyright exceptions
- ✗ Relatively high level of physical counterfeiting and online piracy in comparison with other high-income economies
- ✗ Delays and uneven level of expertise vis-à-vis IP rights within the judicial system

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	0.75	20. Industrial design term of protection	1
3. Patentability of CIs	1	21. Exclusive rights, industrial design rights	0.75
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.66	25. Physical counterfeiting rates	0.52
10. Exclusive rights	0.5	26. Software piracy rates	0.55
11. Cooperative action against online piracy	0.75	27. Civil and procedural remedies	0.75
12. Limitations and exceptions	0.5	28. Pre-established damages	0.5
13. Digital rights management	0.5	29. Criminal standards	0.5
14. Government use of licensed software	0.75	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.75	32. WIPO Internet Treaties	1
18. Exclusive rights	0.75	33. Singapore Treaty on the Law of Trademarks	1
TOTAL: 27.73			
		34. Patent Law Treaty	0.5
		35. Post-TRIPS FTA	1

Spotlight on the National IP Environment

Past Editions versus Current Scores

Italy's overall score has increased from 76% of the total possible score (with a score of 22.69 out of 30) in the fourth edition to 79% (27.73 out of 35) in the fifth edition. This increase in score reflects positive results from the implementation of a new notice and takedown system captured by indicator 11 and relatively high scores in the new indicators, particularly due to alignment to EU standards and practices in IP. However, weaknesses remain in comparison with similar developed economies in key areas, such as IP enforcement.

Copyrights, Related Rights, and Limitations

11. Availability of frameworks that promote cooperative action against online piracy: Regulation of the Italian Communications Regulatory Authority (AGCOM) on copyright protection and electronic communication networks, in force since 2014, empowers AGCOM to receive complaints from rights holders and order ISPs to remove or prevent access to illegally published content. Since 2014, the new system has seen growing levels of participation and reinforcement in judicial rulings. As of October 2016, AGCOM had received more than 620 complaints, with a substantial share (about 150) involving voluntary takedown by ISPs; that is, in response to AGCOM's relay of rights holder notice. On this basis, Italy's score for this indicator increases by 0.25. Nevertheless, the legislation still does not mandate a strictly self-regulated action, with AGCOM intermediation required to enforce ISP liability.

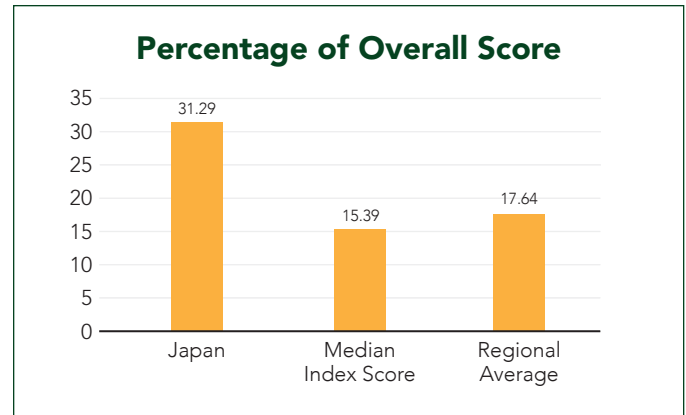
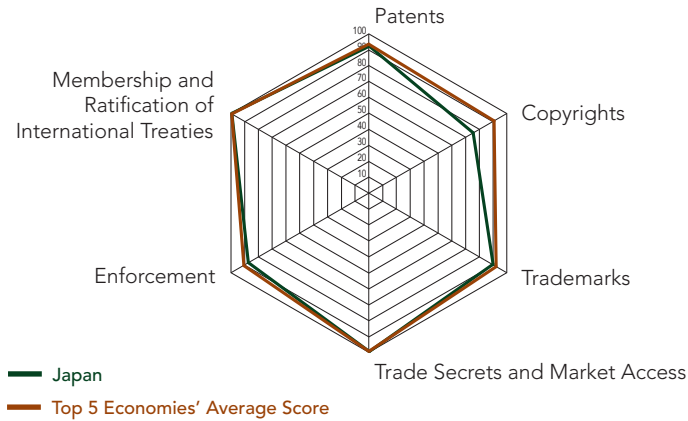
Trademarks, Related Rights, and Limitations

18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks; and 30. Effective border measures: EU Regulation 2015/2424 formally extends the scope of trademark enforcement activities to in-transit custom actions and preparatory acts such as the production of fake labels. These measures are particularly relevant for Italy, whose brands are among the most affected worldwide by counterfeit trade according to a recent OECD-EUIPO joint report. Furthermore, in implementing the new EU framework, Italy's Patent and Trademark Office will be required to introduce administrative proceedings for the invalidation and revocation of trademarks (by 2023), filling in one important gap in the existing trademark framework.

Trade Secrets and Market Access

22. Protection of trade secrets: Italy's Industrial Property Code grants explicit legal protection for trade secrets in Articles 98 and 99, which provide for specific definitions and remedies, respectively. Also, criminal law can be invoked for disclosure of trade secrets in bad faith. The relatively high standard of protection for trade secrets was confirmed in 2016 in the Mazar case, in which the Court of Milan established the need to strictly comply with trade secret law during mergers. Protection is further enhanced under the new EU Trade Secret Directive, resulting in a rise in score for this indicator by 0.25. In addition to setting common minimum standards and a common trade secret definition, the directive introduces for the first time in most member states, including Italy, secondary liability claims and protection of confidentiality during legal procedures.

24. Regulatory and administrative barriers to the commercialization of IP assets: In the realm of technology standardization, SEP licensing terms have come under increased scrutiny in recent years from both EU courts and regulators. For several years, European regulators have engaged in different efforts to coordinate and harmonize the standardization process, including in relation to setting licensing terms. Courts have also weighed in; in one recent landmark case, the European Court of Justice's opinion in *Huawei v. ZTE* detailed procedural aspects of FRAND negotiations in the EU. According to these guidelines, SEP holders seeking an injunction should, among other elements, present the implementer with a written offer on FRAND terms that specifies all relevant terms including the royalty. The court's involvement, however, has not extended to the process for determining royalty rates.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Japan has signed and ratified the TPP
- ✓ As part of TPP ratification, Japan has 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

- ✗ Limited notice and takedown mechanism in place

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	1	20. Industrial design term of protection	0.8
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	1
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	0.8	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.53	25. Physical counterfeiting rates	0.84
10. Exclusive rights	1	26. Software piracy rates	0.82
11. Cooperative action against online piracy	0.5	27. Civil and procedural remedies	0.75
12. Limitations and exceptions	0.75	28. Pre-established damages	0.75
13. Digital rights management	0.75	29. Criminal standards	1
14. Government use of licensed software	1	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	1	33. Singapore Treaty on the Law of Trademarks	1
TOTAL: 31.29			
34. Patent Law Treaty			
35. Post-TRIPS FTA			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Japan's overall score has increased significantly from 78% (23.34 out of 30) in the fourth edition to 89% (31.29 out of 35) in the fifth edition. This increase in score reflects a strong performance in the 5 new indicators added in the fifth edition as well as the accession to all international IP treaties included in the Index.

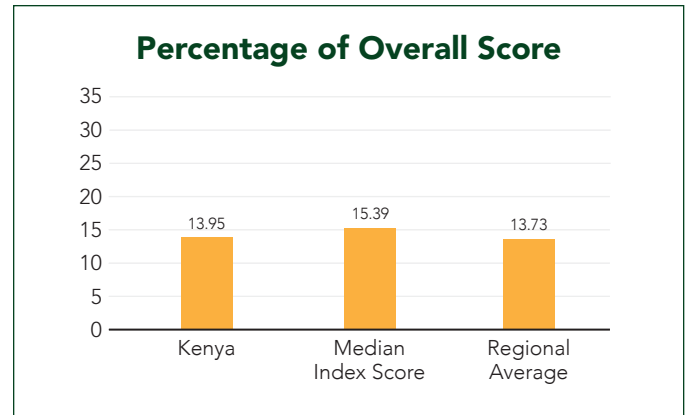
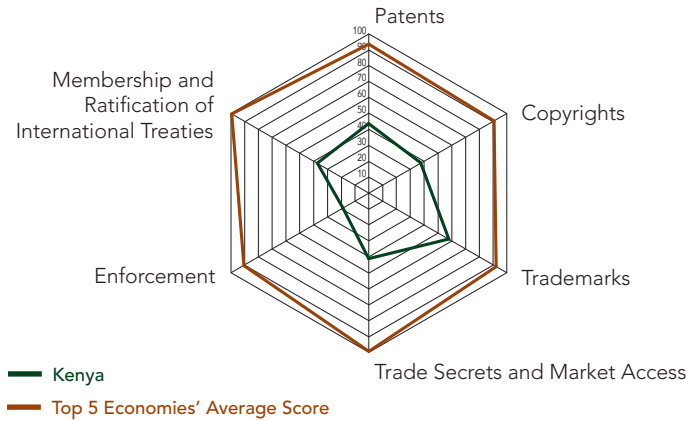
Copyrights, Related Rights, and Limitations

- 9. Copyright (and related rights) term of protection; 10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); and 28. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement:** Reports suggest that, as part of Japan's commitments under the TPP, the Agency for Cultural Affairs and Japanese Cabinet are considering amending Japanese copyright law in 3 major areas. First, under the proposals, the copyright term of protection (currently 50 years for orphan works) would be increased to 70 years. Second, the government is considering introducing preestablished or statutory damages for infringement. In the past, rights holders have pointed to the relatively low damages awarded for most forms of IP infringement and especially for copyright. Last, the agency is also reportedly considering strengthening existing police enforcement powers. Once passed and implemented, these reforms would raise Japan's already high scores and further strengthen its position as a leader in the Index.
- 14. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed software:** The government of Japan has a number of policies and procedures in place that relate to all aspects of government software procurement, management, and development. The regulatory framework provided by the Ministry of Economy, Trade, and Industry; Information-Technology Promotion Agency; Ministry of Internal Affairs and Communications; and National Center of Incident Readiness and Strategy for Cybersecurity is both comprehensive and detailed. These range from the 2007 "Basic Guidelines of the Government Procurement of the Information System" and "Technical Reference Model for Information System Procurement (TRM)" for government agencies to the latest 2015 "Software Management Guidelines" for all Japanese private and public sector entities. While the availability of evidence of consistent and national audits of software use in central government remains limited, there is a body of evidence that—even at the level of prefectures (county government)—a growing number of prefectures are both requiring and

monitoring that any proprietary software used should be licensed software. This is most notable, for example, in the prefecture of Ishikawa, which since the late 2000s has taken a comprehensive approach to the use and monitoring of county government software.

Membership and Ratification of International Treaties

Since it was first included in the second edition of the Index, Japan has stood out as one of the few (with Canada) developed high-income economies that scored low in its participation in and ratification of international treaties. This fundamentally changed in 2016 when Japan signed and acceded to both the Patent Law Treaty and the Singapore Treaty on the Law of Trademarks. Furthermore, in November 2016 the lower house of the Japanese Diet voted to ratify the TPP treaty. The accession and ratification, respectively, by Japan to these treaties has resulted in a significant increase in Japan's score in this category.



Strengths and Weaknesses

Key Areas of Strength

- ✓ IP leader among African economies; for instance, in new online copyright registration system
- ✓ 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 (although fragmentation occurs and much more action is needed)
- ✓ Improving business environment with reduction in IP-related market barriers

Key Areas of Weakness

- ✗ Weak and backlogged judicial system with notable deficiencies in criminal enforcement
- ✗ Important gaps in copyright protection, particularly in the digital space
- ✗ Scope of trademark protection limited in legislation and in practice
- ✗ Legislative and resource barriers to border enforcement

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	0.6
3. Patentability of CII	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.5
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0.75	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.33
9. Term of protection	0.53	26. Software piracy rates	0.24
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0	28. Pre-established damages	0
12. Limitations and exceptions	0.5	29. Criminal standards	0.25
13. Digital rights management	0.5	30. Effective border measures	0
14. Government use of licensed software	0.5	31. Transparency and public reporting by customs	0.25
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	0.5
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0.5
17. Protection of well-known marks	0.5	34. Patent Law Treaty	0.5
18. Exclusive rights	0.25	35. Post-TRIPS FTA	0
TOTAL: 13.95			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

2. Patentability requirements: Generally speaking, Kenya's IP Act provides fairly standard criteria for, and exclusions from, patentability. Patents may be granted by both the Kenyan Industrial Property Institute (KIPI) and the African Regional IP Organization (ARIPO), of which Kenya is a contracting member, and both agencies conduct substantive examinations. The ARIPO system is used more heavily by international applicants. According to KIPI statistics, despite significant growth in the use of the national system, over the past 15 years patenting activity has remained relatively low. Moreover, local legal analysis suggests that although the examination framework is relatively strong, in practice resources and expertise for patent review are not readily available. As a result, innovators continue to face significant delays and barriers to patenting. KIPI data indicate the average time to grant is 3.5 to 4.5 years. In addition, a recent survey from the Scinnovent Centre reported that about 45% of innovators found it hard to obtain patent and trademark protection in Kenya.

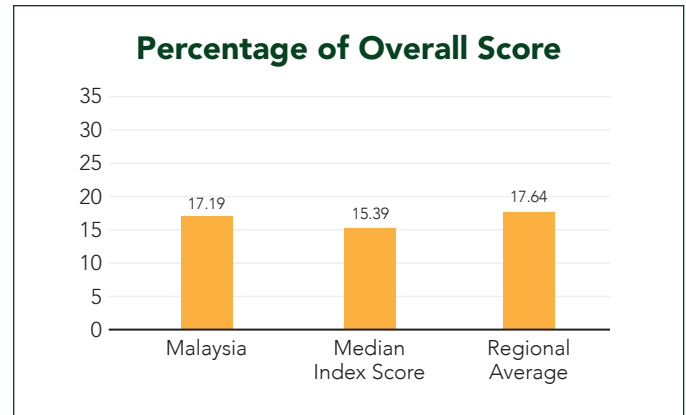
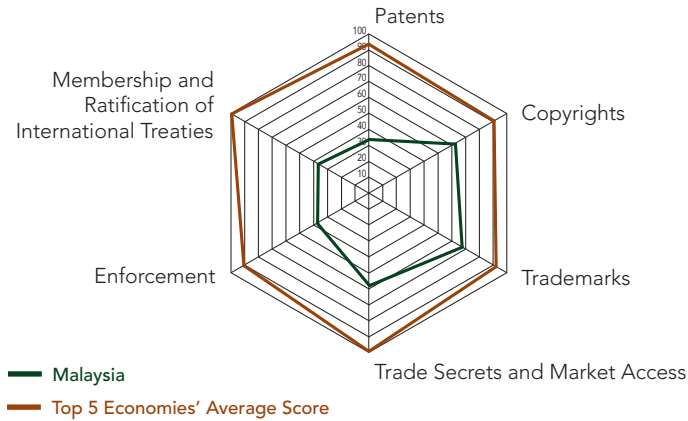
Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); and 11. Availability of frameworks that promote cooperative action against online piracy: Kenya's Copyright Act provides for basic exclusive rights to redress copyright infringement, although these rights are not specific to the digital or online sphere. Proposed copyright amendments within wider ICT Act amendments would introduce a semi-notice and takedown system; however, the proposed system is out of sync with international best practices, relying on involvement from infringing parties and not adequately outlining ISPs' responsibilities. In practice, ISPs typically do not face liability, even when there is awareness of blatantly infringing content, and digital piracy is very high. The Copyright Board (KECOBO) estimates that 98% of music and one in three books sold in Kenya are pirated. Software piracy is also very high, despite dedicated government efforts to encourage the legal use of software.

14. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed software: The use of licensed software is required among government agencies in the Ministry of ICT's Policy on Software Licensing Regime as well as in several agency-specific policies. These standards are reiterated in a draft policy on information security considered in 2016. Nevertheless, according to KECOBO application is mixed, with state-owned enterprises in particular still displaying high rates of illegal software use.

Enforcement

27. Civil and procedural remedies; 29. Criminal standards including minimum imprisonment and minimum fines; and 30. Effective border measures: Remedies and penalties are available for major types of IP rights; however, overall they are not considered to be an adequate deterrent. In general, although the groundwork for stronger IP enforcement is present, actual enforcement is weak, with enforcement bodies lacking the necessary expertise and resources. Nevertheless, cases before Kenya's four specialized IP Tribunals tend to proceed much faster than in regular courts. However, significant barriers to enforcement against counterfeits exist. Despite the introduction of the Anti-Counterfeiting Agency in 2008, counterfeiting remains a major problem with little real recourse available. Counterfeiting results in estimated losses in tax revenues of at least USD80 million, capital flight, and public safety risks, particularly in pharmaceuticals (an estimated 30% of medicines in Kenya are fake). Moreover, with significant gaps in border enforcement, Kenya is a major point of entry into East Africa for counterfeit goods.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Signatory to the TPP
- ✓ Strong package of copyright reforms passed in 2012—broadly in line with international best practices
- ✓ Five-year RDP term in place

Key Areas of Weakness

- ✗ Despite intensifying efforts, still high levels of counterfeiting, software, and music piracy
- ✗ New products not offered *de facto* RDP full term of protection
- ✗ Patent term restoration not allowed
- ✗ *Ex officio* powers not used by customs officials

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	1	20. Industrial design term of protection	1
3. Patentability of CILs	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	1
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.53	25. Physical counterfeiting rates	0.44
10. Exclusive rights	0.75	26. Software piracy rates	0.47
11. Cooperative action against online piracy	0.75	27. Civil and procedural remedies	0.5
12. Limitations and exceptions	0.5	28. Pre-established damages	0.5
13. Digital rights management	0.75	29. Criminal standards	0.5
14. Government use of licensed software	0.5	30. Effective border measures	0.25
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	1
18. Exclusive rights	0.5	33. Singapore Treaty on the Law of Trademarks	0
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0.5
TOTAL: 17.19			

Spotlight on the National IP Environment

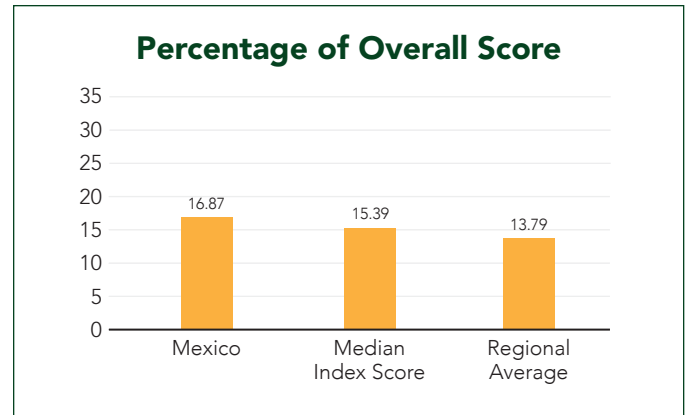
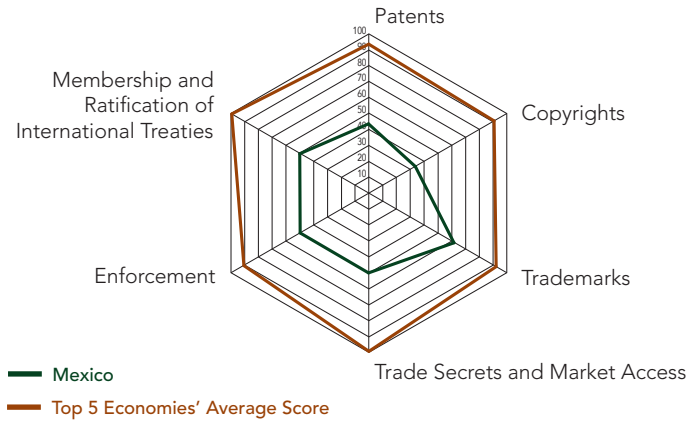
Past Editions versus Current Scores

Malaysia's overall score has stayed virtually the same, decreasing slightly from 49.2% (14.78 out of 30) in the fourth edition to 49.1% (17.19 out of 35) in the fifth edition. This score reflects a mixed performance in the 5 new indicators added in the fifth edition.

Patents, Related Rights, and Limitations

4. Pharmaceutical-related patent enforcement and resolution mechanism; 6. Patent term restoration for pharmaceutical products; 7. Regulatory data protection term; 30. Effective border measures; and 35. At least one free trade agreement (FTA) with substantive and/or specific IP provisions such as chapters on IP and separate provisions on IP rights provided it was signed after WTO/TRIPS membership: As one of 12 signatory countries to the TPP Agreement, Malaysia is currently ratifying the treaty and drafting implementing legislation. The TPP's IP chapter is comprehensive and touches on all major forms of IP rights. In September 2016, Secretary General Datuk J. Jayasiri of the Ministry of International Trade and Industry commented on the drafting of implementing TPP legislation. He stated that "18 laws" had been identified by the government as requiring legislative amendments and that the government was working on sending a package of legislation to Parliament for approval. At the time of research, no draft legislation had been publicly released by the government or was currently being reviewed by the Parliament of Malaysia. As has been noted over the past 4 editions of the Index, Malaysia has significantly strengthened its national IP environment since 2011. In particular, copyright reforms and continued efforts in the realm of enforcement of IP rights have resulted in a continuous, year-on-year improvement to Malaysia's score on the Index. Malaysia is the highest-ranked middle-income economy included in the Index. Implementation of the TPP and corresponding legislative changes to Malaysia's national laws would fill many of the remaining gaps in its national IP environment. This is particularly the case for patents and biopharmaceutical IP rights. For example, Malaysia does not currently have in place a pharmaceutical-related patent enforcement mechanism. Article 18.53 of the TPP provides the choice between two clear mechanisms of either premarketing notification and/or linkage between the market approval of a follow-on biopharmaceutical product and the exclusivity status of the reference product. Similarly, due to administrative delays, Malaysia does not currently allow for patent term restoration for biopharmaceutical products. Article 18.48 of the TPP states that contracting parties to the treaty "shall make available an adjustment of the patent term to compensate the patent owner for unreasonable curtailment of the effective patent term as a

result of the marketing approval process." The introduction of a patent restoration period of 5 years would be in line with current international best practices and the benchmark used in the Index. As for regulatory data protection, since 2011, Malaysia has had in place a 5-year term of protection. However, as noted in past editions, the full term of protection has not been made available. Instead, the term of protection has begun whenever a product was introduced globally. Article 18.5 of the TPP provides a 5-year term of RDP for new chemical entities and an 8-year term for biologics, with the term of protection to begin from "the date of marketing approval of the new pharmaceutical product in the territory of the Party." Annex 18C of the agreement defines the beginning of the term of protection specifically for Malaysia: "For greater certainty, the periods of protection referred to ... shall begin on the date of marketing approval of the pharmaceutical product in Malaysia." Implementing the TPP treaty in full in these areas would significantly strengthen and fill many of the remaining gaps in Malaysia's national IP environment and specifically as it relates to the life sciences. It would also considerably improve Malaysia's score on the Index.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Standard exclusive rights for patents and trademarks
- ✓ 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 with international standards
- ✓ Signatory to certain international IP treaties and to the TPP

Key Areas of Weakness

- ✗ Partial and ambiguous protection of IP in certain aspects for life sciences (including application of RDP to biologics and patent enforcement)
- ✗ Lack of sufficient framework to promote action against online piracy
- ✗ 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	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	0.6
3. Patentability of CII	0	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0.25	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.5
7. Regulatory data protection term	0.25	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0.5	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.5
9. Term of protection	0.79	26. Software piracy rates	0.48
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.5
11. Cooperative action against online piracy	0	28. Pre-established damages	1
12. Limitations and exceptions	0.5	29. Criminal standards	0.75
13. Digital rights management	0	30. Effective border measures	0
14. Government use of licensed software	0.5	31. Transparency and public reporting by customs	0.25
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0.5
17. Protection of well-known marks	0.5	34. Patent Law Treaty	0
18. Exclusive rights	0.5	35. Post-TRIPS FTA	0.5
TOTAL: 16.87			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Mexico's overall score has increased slightly from 46% of the total possible score (with a score of 13.83 out of 30) in the fourth edition to 48% (16.87 out of 35) in the fifth edition. This change in score is mainly a result of Mexico's performance in the 5 new indicators added in the fifth edition. In addition, Mexico's score for indicator 18 rises by 0.25 due to the introduction of a new platform for trademark opposition. Mexico also receives 0.5 under indicator 35 as a signatory of the TPP agreement. The accession by Mexico to the TPP and adoption of the IP standards enshrined within the agreement would further strengthen Mexico's national IP environment, particularly with regard to the life sciences and online copyright infringement.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking):

While 2015 amendments that would introduce a notice and takedown system and penalties for online infringement were shelved, some steps were taken in 2016 to enhance prosecution for online piracy. For example, a copyright amendment closes one existing loophole by adding the illegal reproduction and distribution of movies and audiovisual materials to the list of trade-related copyright infringements.

Trademarks, Related Rights, and Limitations

18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks: In 2016, Mexico introduced a trademark opposition mechanism, filling in one gap in the existing trademark framework. The mechanism is aimed at providing a streamlined platform for protecting against confusingly similar trademarks, although in some respects it is closer to a third-party observation system than an opposition system.

Enforcement

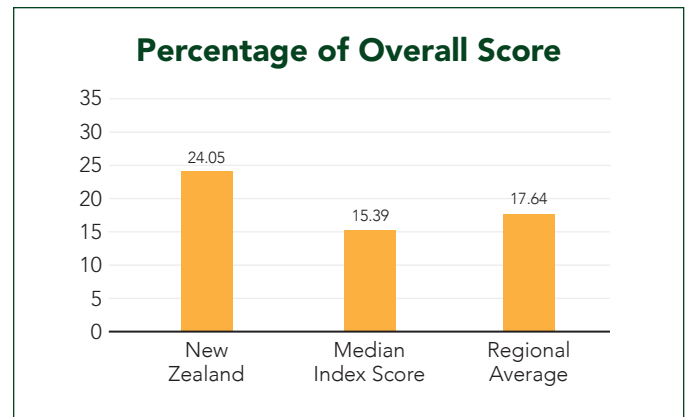
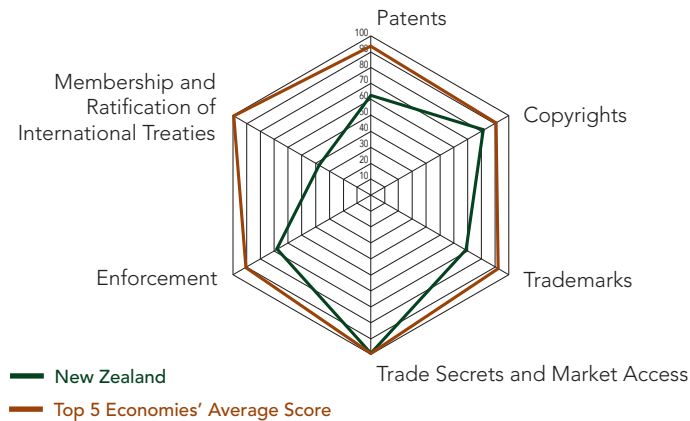
29. Criminal standards including minimum imprisonment and minimum fines: Under a constitutional reform passed in 2008 and was set to be implemented during 2016, Mexico committed to overhaul its criminal justice system by moving from a "mixed inquisitorial" to an "adversarial" model with open and oral trials, in a bid to address significant court backlogs and widespread abuse and corruption. At present, however, implementation has been slow and patchy, notably at the state level but also with regard to federal crimes including IP infringement. Other developments aimed at strengthening IP enforcement include the creation of a new Digital IP Crime Unit within the Attorney General's Office.

This new unit employs five prosecutors and focuses on investigating and prosecuting Internet-related IP crimes.

Membership and Ratification of International Treaties

35. At least one free trade agreement (FTA) with substantive and/or specific IP provisions such as chapters on IP and separate provisions on IP rights provided it was signed after WTO/TRIPS membership:

The TPP was signed on February 4, 2016, by the 12 contracting members and is expected to create a more level playing field in IP and reflect 21st century realities. Mexico has reportedly committed to ratifying the agreement in 2016. TPP obligations will affect various indicators across the Index that are currently unavailable or inadequate in Mexico, including introducing patent term extension, remedies against circumvention of TPMs, protection for unregistered well-known marks, and enhanced access to damage awards. Importantly, the current lack of clarity about the availability of RDP for biologics will conflict with Mexico's commitments under the TPP, once ratified. The Federal Committee for Protection from Sanitary Risks (COFEPRIS) published guidelines in June 2012 that provide protection against the use of undisclosed test data by any person for the purpose of marketing approval for a maximum of 5 years, but Mexican authorities reportedly indicated that RDP would not be considered as applicable to biologics.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Signatory to the TPP
- ✓ Copyright (Infringing File Sharing) Amendment Act and corresponding regulation provide a relatively strong framework against online piracy

Key Areas of Weakness

- ✗ Proposed TPP implementing legislation limits availability of patent term restoration for biopharmaceuticals
- ✗ Plain packaging passed into law in 2016

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	0.75	20. Industrial design term of protection	0.6
3. Patentability of CIIIs	1	21. Exclusive rights, industrial design rights	0.75
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	1
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.66	25. Physical counterfeiting rates	0.72
10. Exclusive rights	0.75	26. Software piracy rates	0.82
11. Cooperative action against online piracy	0.75	27. Civil and procedural remedies	1
12. Limitations and exceptions	1	28. Pre-established damages	0.75
13. Digital rights management	1	29. Criminal standards	0.75
14. Government use of licensed software	0.75	30. Effective border measures	0.25
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.5
16. Limitations on use of brands	0	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	0
18. Exclusive rights	1	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0.5
TOTAL: 24.05			

Spotlight on the National IP Environment

Past Editions versus Current Scores

New Zealand's overall score has decreased from 71% (21.38 out of 30) in the fourth edition to 69% (24.05 out of 35) in the fifth edition. This change in score reflects a mixed performance in the 5 new indicators added in the fifth edition and the passing of plain packaging legislation for tobacco products. On a positive note, New Zealand's score has increased 0.25 on indicator 30. Although border officials still do not have comprehensive *ex officio* powers (as noted in previous discussions, existing powers are limited), local evidence and rates of physical counterfeiting suggest that New Zealand customs authorities are, in practice, relatively effective in deterring and detaining suspected counterfeit goods. Moreover, it is expected that once the New Zealand Parliament passes the Trans-Pacific Partnership Agreement Amendment Bill (which includes a clear mandate for officials to take *ex officio* action against suspected goods), New Zealand will receive a full score on this indicator.

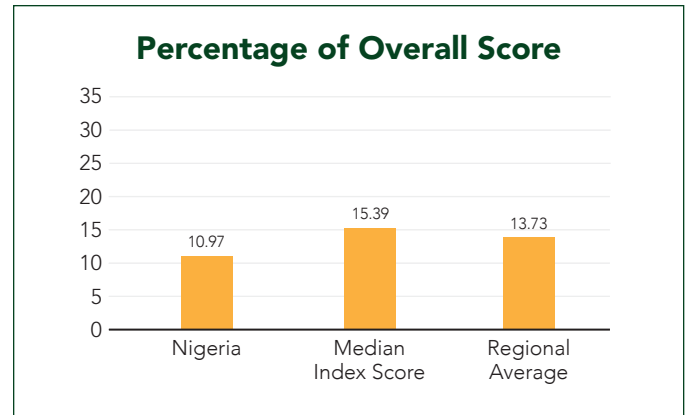
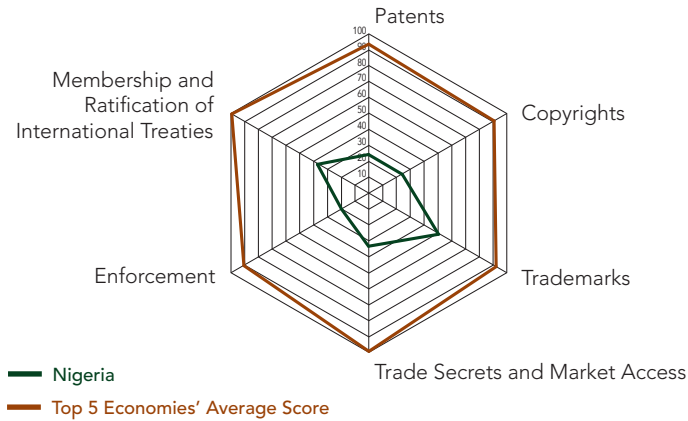
Patents, Related Rights, and Limitations

6. Patent term restoration for pharmaceutical products: New Zealand has up until now been one of a handful of developed OECD economies (including Canada) that has not provided restoration for pharmaceutical products for loss of patent term time due to delays caused by the marketing approval process. As one of 12 signatory countries to the TPP Agreement, New Zealand is currently ratifying the treaty and drafting implementing legislation. Article 18.48 of the TPP states that contracting parties to the treaty "shall make available an adjustment of the patent term to compensate the patent owner for unreasonable curtailment of the effective patent term as a result of the marketing approval process." As in other economies that currently do not offer a restoration period, the introduction of this mechanism would significantly strengthen New Zealand's national IP environment as it relates to the life sciences. Draft implementing legislation has been presented by the New Zealand government to Parliament and is currently progressing in Parliament. The Trans-Pacific Partnership Agreement Amendment Bill was in November 2016 reported out of the Foreign Affairs, Defense and Trade Committee and recommended for passage by the full Parliament. However, both this draft bill and proposed regulations put forth by the Ministry of Business, Innovation and Employment during the summer would effectively undermine many of the principles contained in the TPP. To begin with, both documents would limit the term of restoration offered to a maximum of 2 years. This term of restoration is significantly lower than the prevailing international best practice of 5 years (offered in the U.S. and EU) and the benchmark used in the Index. Furthermore, the documents define "unreasonable delays" as delays of between 3 and 5 years depending on the type of product (a chemical versus a biologic medicine). The TPP agreement

does not distinguish between different products or provide varying definitions of delay; the negative impact on a patent holder's term of protection of a delay in approval is the same regardless of the type of product. And given these long timelines, it is unlikely that rights holders would ever be offered a term of restoration. Last, unlike markets in which a mechanism for patent term restoration is in place (including the U.S.), New Zealand's draft legislation would apply only to direct delays caused by the national drug regulatory authority Medsafe and not, for example, to time taken to conduct any additional clinical trials requested as a precondition for market approval by Medsafe.

Trademarks, Related Rights, and Limitations

16. Discrimination/restrictions on the use of brands in the packaging of different products: On September 8, 2016, the Smoke-Free Environments (Tobacco Standardized Packaging) Amendment Bill passed its third reading by the New Zealand Parliament. The bill received Royal Assent on September 14, 2016. The government has stated that Implementing Regulations are currently being developed following a public consultation, but regardless of the final shape that these regulations take, the legislation outlines very clearly the complete elimination of the use of trademarks, branding, or any type of company logo by rights holders. The introduction of plain packaging in New Zealand significantly restricts the use of brands, trademarks, and trade dress on retail packaging of tobacco products and severely limits the ability of trademark owners to exploit their rights. The passage of this legislation decreases New Zealand's score on this indicator from 1 to 0.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic IP framework in place
- ✓ Despite overall challenging environment, ongoing enforcement efforts by the Nigerian Communications Commission (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
- ✗ Persistently high rates of physical and growing online piracy
- ✗ Limited participation in international IP treaties

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	0	20. Industrial design term of protection	0.6
3. Patentability of CILs	0	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.75
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.74	25. Physical counterfeiting rates	0.43
10. Exclusive rights	0.25	26. Software piracy rates	0.2
11. Cooperative action against online piracy	0.25	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0.25	28. Pre-established damages	0
13. Digital rights management	0	29. Criminal standards	0.25
14. Government use of licensed software	0	30. Effective border measures	0
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.25
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.25	32. WIPO Internet Treaties	0.5
18. Exclusive rights	0.5	33. Singapore Treaty on the Law of Trademarks	0
TOTAL: 10.97			
		34. Patent Law Treaty	1
		35. Post-TRIPS FTA	0

Spotlight on the National IP Environment

Past Editions versus Current Scores

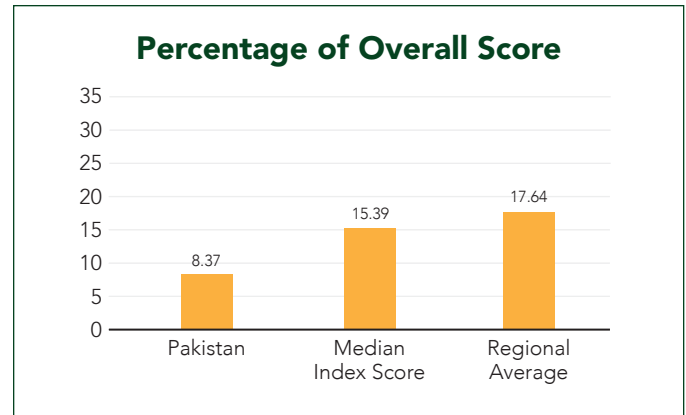
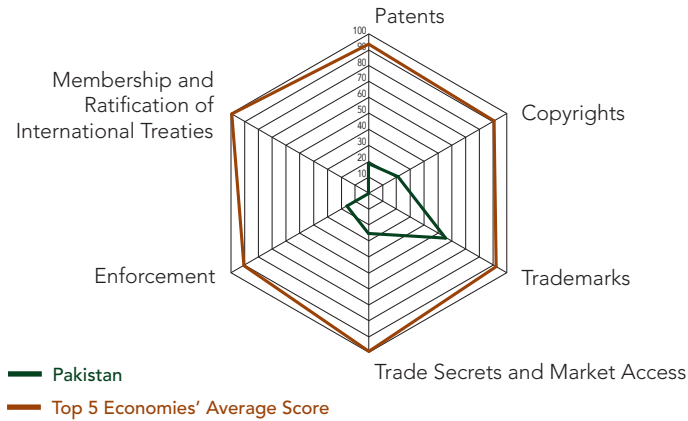
Nigeria's overall score has stayed virtually the same, decreasing marginally from 31.4% (9.42 out of 30) in the fourth edition to 31.3% (10.97 out of 35) in the fifth edition. This change in score reflects a mixed performance on the 5 new indicators added in the fifth edition.

Trade Secrets and Market Access

23. Barriers to market access: Nigeria has had a number of localization policies and local content requirements in place since 2010. These policies have targeted specific sectors of the economy including energy and ICT. These efforts have been most pronounced in the minerals sector. The 2010 Nigerian Oil and Gas Industry Content Development Act is the legislative basis for the majority of these policies. The law and accompanying regulatory guidance provides a detailed list of requirements ranging from employment of local staff, to mandatory local procurement, to levels of technology transfer. These requirements include, for example, that a minimum of 50% of oil or other petroleum products are reserved for trade and marketing for Nigerian-owned companies. Similarly, limits are in place for the filling of management positions for ex-patriots (at the time of research, this was a maximum of 5% of management staff). The law also requires foreign entities to actively engage in the transfer of technology to Nigerian entities. Specifically, Articles 43–46 of the act require affected entities to “carry out a programme ... for the promotion of technology transfer to Nigeria in relation to its oil and gas activities.” This includes taking part in joint ventures and partnering and licensing activities with local Nigerian companies. In 2014, these regulations were intensified with regard to oil rigs and related technologies. Similar guidelines are in place for the ICT sector through the “Guidelines for Nigerian Content Development in Information and Communication Technology” developed and enforced by the Office for Nigerian Content Development in Information & Communication Technology. In 2016, a number of proposals were made by the Nigerian government to further strengthen these local content requirements. In July 2016, Minister for Communications Adebayo Shittu stated that the government should more vigorously impose local content requirements on the state procurement of ICT products. Shittu was quoted by local press as saying that “under my watch, Nigeria will not be a dumping ground for all forms of technologies.” The conditioning of market access with the sharing of IP through direct technology transfer requirements or indirectly through local manufacturing, ownership, or production requirements is a significant barrier to trade and investment. Imposing any additional such requirements in Nigeria will reduce the score for this indicator.

Membership and Ratification of International Treaties

Nigeria scores low in its participation in and ratification of international treaties, largely because Nigeria is not a contracting party to the Singapore Treaty on the Law of Trademarks, nor has it concluded a major FTA post-TRIPS membership that includes substantial provisions on IP rights. Nigeria is a signatory to but has not ratified the WIPO Internet Treaties, and it is a signatory to and has ratified the Patent Law Treaty.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic IP protection available in legislation (with exceptions particularly for sector-specific rights)
- ✓ Introduction of specialized IP courts and capacity building aimed at streamlining and improving decision making
- ✓ Greater efforts at expanding public education, modernizing IP laws, and enhancing authority of enforcement agencies
- ✓ Relatively long term of protection for designs in law (although lack of implementing legislation may negate term in practice)

Key Areas of Weakness

- ✗ Significant discrepancy between IP rights in law and level of practical enforcement
- ✗ Enforcement often arbitrary and nondeterrent; IP infringement viewed as minor offense (with exceptions, particularly for counterfeit medicines)
- ✗ High counterfeiting and piracy rates
- ✗ Low level of international commitment to strengthening IP (such as via IP-related treaties)

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	0.25	20. Industrial design term of protection	1
3. Patentability of CILs	0.25	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.25
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.53	25. Physical counterfeiting rates	0.18
10. Exclusive rights	0.25	26. Software piracy rates	0.16
11. Cooperative action against online piracy	0	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0.25	28. Pre-established damages	0
13. Digital rights management	0	29. Criminal standards	0.25
14. Government use of licensed software	0.25	30. Effective border measures	0.25
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.25	32. WIPO Internet Treaties	0
18. Exclusive rights	0.25	33. Singapore Treaty on the Law of Trademarks	0
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0
TOTAL: 8.37			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

2. Patentability requirements: Pakistan's Patent Ordinance provides for the standard patentability criteria of novelty, inventive step, and industrial application. Significant barriers to patenting life sciences inventions exist, including exclusions for isolated biologic or natural substances, new uses for a known product or process, and modifications that do not result from a change in chemical formula or process of manufacture. Moreover, most opposition proceedings in Pakistan (which largely occur pre-grant) target pharmaceutical and biotech claims. Second medical use patents are reportedly granted at times using a Swiss-style claim as long as material improvement in a compound's properties is present or there is evidence of enhanced efficacy. Pakistan is not a contracting party to Patent Cooperation Treaty (PCT) and no formal time frame for examination exists. Patent examination typically takes about two to three years. Relatively little jurisprudence exists on the boundaries of patentable subject matter, with litigation considered to be a costly and long process. In a positive step, the Plant Breeders' Rights Act under consideration in 2016 would allow for the patentability of seed and plant biotechnologies. Electronic access to patent information is also underway.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); 11. Availability of frameworks that promote cooperative action against online piracy; and 12. Scope of limitations and exceptions to copyrights and related rights: Pakistan's Copyright Ordinance provides for general exclusive rights against infringement but does not specifically address piracy in the online sphere. It also outlines a fair dealing framework in relation to copyright, although it contains a major loophole for the government use of textbooks, allowing for a royalty-free compulsory license. Digital piracy is rampant in a number of sectors, including an estimated 90% rate of book piracy at universities. Music and software piracy is also very high, as is unauthorized rebroadcasting. No ISP liability in relation to copyright exists, and media reports in 2016 mentioned that a number of ISPs in Pakistan run dedicated portals for pirated content.

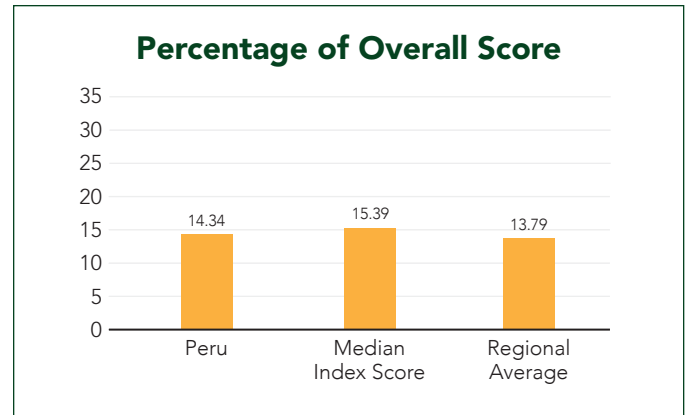
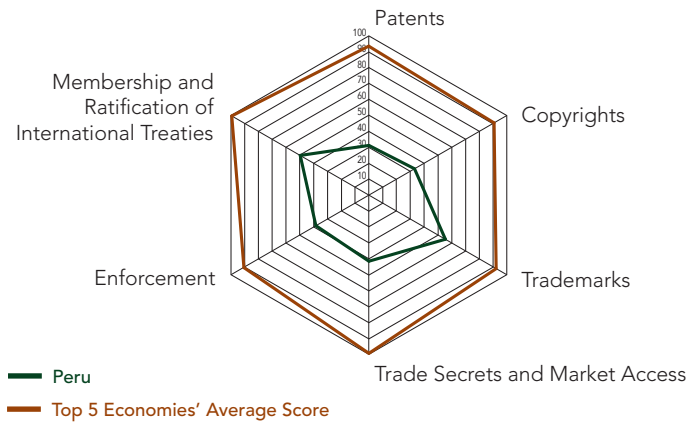
Trademarks, Related Rights, and Limitations

19. Availability of frameworks that promote cooperative private action against the online sale of counterfeit goods: No law specifically covers ISPs' role in addressing counterfeiting online, although legislation on electronic crimes (including the recent Prevention of Electronic Crimes

Bill adopted by the legislature in 2016) could potentially cover sales of counterfeits online. However, there is no indication that enforcement action is taken on this basis. Pakistan experiences high rates of counterfeiting, including via online sales of medicines. By some estimates, 40%–60% of drugs are considered to be fake, with up to 10,000 illegal distributors and pharmacies.

Enforcement

27. Civil and procedural remedies; and 29. Criminal standards including minimum imprisonment and minimum fines: Generally speaking, IP laws provide standard remedies for infringement, although some significant loopholes are available. In cases where a defendant can show lack of knowledge, copyright holders can only secure injunctions and profits (where relevant), and liability for copyright infringement is difficult to establish where no commercial use exists. Criminal penalties are inadequate and nondeterrent, lack minimum sentences, and, for patents, do not distinguish between unconscious and willful infringement. Huge delays have existed in the judicial system for some time; one report indicates that over 600,000 cases are pending in civil courts (with cases lasting up to 5 years, although many cases never reach trial). Courts are incentivized to provide very minimal sentences, with imprisonment rarely imposed. However, some improvements to the system have taken place in recent years. For instance, certain provinces have raised the penalties for infringement; in 2015, Punjab province increased penalties for the production and sale of counterfeit medicines to a minimum of 5 years (with a maximum of 10 years). In addition, in 2015, the Intellectual Property Organization introduced specialized IP courts, training for judges, and efforts to reduce red tape. It remains to be seen how effective these new courts will be in addressing backlogs, but appointed judges reportedly have strong IP backgrounds.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic IP protections available (although with gaps in sector-specific provisions)
- ✓ Standard legal framework for IP enforcement, with some improvements to application under new IP courts
- ✓ Border measures provided for in legislation and customs publishes reports of IP-related seizures
- ✓ Efforts to strengthen the technology transfer environment

Key Areas of Weakness

- ✗ Limited patentability and lack of effective IP protection for life sciences
- ✗ Rudimentary digital copyright regime (with some exceptions)
- ✗ High rates of counterfeiting and piracy
- ✗ Weak IP enforcement on the ground

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.25	20. Industrial design term of protection	0.4
3. Patentability of CILs	0	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.75
7. Regulatory data protection term	0.25	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.74	25. Physical counterfeiting rates	0.33
10. Exclusive rights	0.25	26. Software piracy rates	0.37
11. Cooperative action against online piracy	0	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0.25	28. Pre-established damages	0.25
13. Digital rights management	0.5	29. Criminal standards	0.5
14. Government use of licensed software	0.25	30. Effective border measures	0.5
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.5
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.25	32. WIPO Internet Treaties	1
18. Exclusive rights	0.5	33. Singapore Treaty on the Law of Trademarks	0
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	1
TOTAL: 14.34			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Peru's overall score has remained the same at 41% of the total possible score, although its score increased from 12.30 (out of 30) in the fourth edition of the Index to 14.34 (out of 35) in the fifth edition. Peru's score reflects a slight rise (of 0.25) for indicator 29 on criminal standards and enforcement (although other steps forward also took place in 2016 that did not necessarily impact Peru's score), as well as a weak-to-moderate performance on the 5 new indicators added to the Index in the fifth edition.

Patents, Related Rights, and Limitations

2. Patentability requirements: In a positive step to tackle persistent delays in granting patents, the Peruvian IP office (INDECOPI) entered into a PPH agreement with Spain in January 2016 and with the Pacific Alliance countries (Mexico, Colombia, and Chile) in June 2016. Under both systems, patents already reviewed and approved in one of the other member countries can benefit from expedited review. Currently, reported time frames vary but are fairly long. INDECOPI reports an average of three years to patent grant, while the 2016 Ministry of Foreign Relations' report on doing business in Peru indicates a four-year time frame. Pre-grant opposition proceedings add an additional one to two years to the patent review and grant process.

Trade Secrets and Market Access

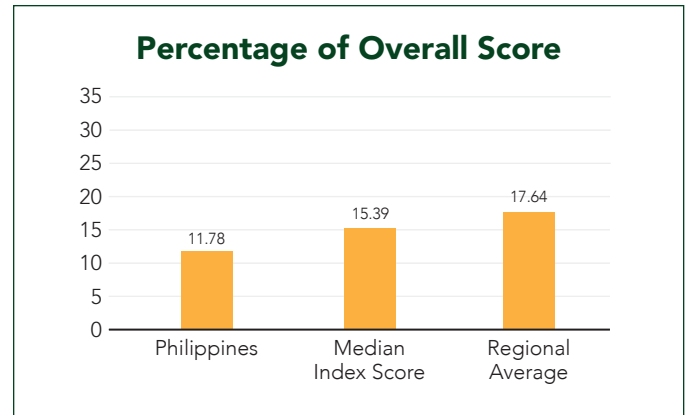
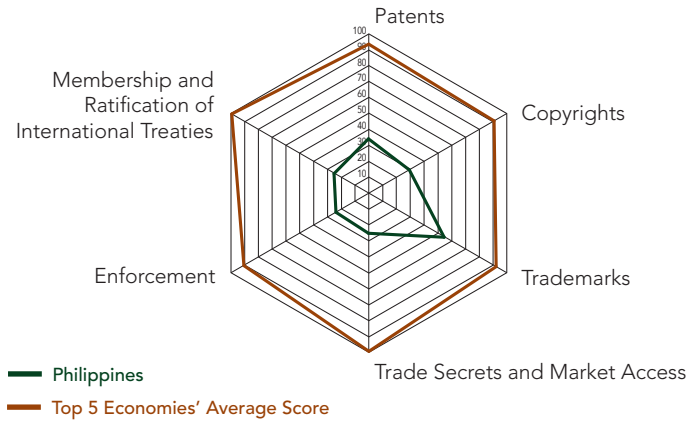
24. Regulatory and administrative barriers to the commercialization of IP assets: Peruvian universities have in place largely outdated IP policies, often denying even partial ownership of patents to the inventor. Other obstacles to commercialization of IP include a *de facto* requirement for registering licensing agreements with INDECOPI in order for royalty payments to be counted against taxes. Also, according to Peruvian law (Article 12 of Decision 291), authorities must assess the economic contribution of a licensed technology including by estimating the expected profits and price of the goods. Nevertheless, the government is taking steps to expand technology transfer and IP licensing, including by public organizations, as set forth in a special plan for technology transfer for the period 2016–21.

Enforcement

29. Criminal standards including minimum imprisonment and minimum fines: As mentioned in the fourth edition of the Index, Peru has a limited legal framework for civil and criminal remedies and the overall enforcement environment remains weak. Criminal prosecution is undermined by long delays and the de-prioritization of IP in the judiciary system. In a partial move to address these concerns, two new criminal courts in Lima and Callao specializing in IP and customs crimes began operating in 2016, replacing the two temporary IP criminal courts that had been in place since 2014.

Membership and Ratification of International Treaties

35. At least one free trade agreement (FTA) with substantive and/or specific IP provisions such as chapters on IP and separate provisions on IP rights provided it was signed after WTO/TRIPS membership: The TPP was signed on February 4, 2016, by the 12 contracting members and is expected to create a more level playing field in IP and reflect 21st century realities. In Peru, where the agreement was submitted to Congress for ratification in 2016, implementing TPP obligations would fill in important gaps in the current IP framework, such as the availability of second use patents, a system for streamlining pharmaceutical patent disputes and patent term restoration; regulation of ISP liability; and more adequate civil and criminal remedies against infringement.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Most basic IP rights provided for in legislation (although missing certain key sector-specific rights)
- ✓ Growing specialization and capacity building, such as in administrative IP courts
- ✓ Heightened efforts to improve IP enforcement and interagency and international cooperation (although inadequate for tackling level of infringement)

Key Areas of Weakness

- ✗ Loopholes, red tape, and nondeterrent remedies in IP legislation and in courts
- ✗ Significant gaps in life sciences and content-related IP rights
- ✗ Online piracy rampant, with digital largely unaddressed
- ✗ Limits in trademark protection, mixed enforcement outcomes
- ✗ Some concerns with IP-related barriers to market access (such as for the media sector)

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	0.5	20. Industrial design term of protection	0.6
3. Patentability of CILs	0.5	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0.25	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.25
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0.5	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.53	25. Physical counterfeiting rates	0.32
10. Exclusive rights	0.25	26. Software piracy rates	0.33
11. Cooperative action against online piracy	0	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0.25	28. Pre-established damages	0.25
13. Digital rights management	0.25	29. Criminal standards	0.25
14. Government use of licensed software	0.5	30. Effective border measures	0
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.25
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	1
18. Exclusive rights	0.5	33. Singapore Treaty on the Law of Trademarks	0
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0
TOTAL: 11.78			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

- 2. Patentability requirements:** The Intellectual Property Code of the Philippines provides for standard basic criteria for patentability; however, certain exclusions are out of sync with international standards. In particular, 2008 amendments introduced a fourth hurdle to patentability in the form of enhanced efficacy requirements explicitly aimed at limiting the patentability of new forms and uses of pharmaceutical products. But second medical use patents are available per the examination guidelines of the IP Office (IPOPPL) through Swiss-type claims and as long as they fulfill other patentability criteria. Similarly, although computer programs are excluded from patentability in the IP Code, its implementing rules permit software claims in relation to a unique technical operation or effect on a computer. IPOPPL faces significant backlogs: time to grant is three to four years on average, depending on the type of patent application. To help streamline processes and enhance transparency, IPOPPL has adopted an electronic filing system; it is a member of the ASEAN Patent Examination Cooperation with access to regional search and examination results; and it has entered into a PPH with the USPTO and JPO.
- 7. Regulatory data protection (RDP) term:** Section 72.4 of the IP Code and Administrative Order No. 27A s2001 protect against unfair commercial use and disclosure of undisclosed test data; however, no term of protection is stated in the law.
- 8. Patent opposition:** The Philippines does not have in place an explicit patent opposition mechanism. Rather, a third-party observation system (Community Review Process), introduced recently, allows a select list of third parties (including government, industry, universities, and other key stakeholders) to provide observations during the examination process, which are taken into account by examiners. Given the early phases of the mechanism, there is mixed evidence concerning its effectiveness and impact on patent office delays.

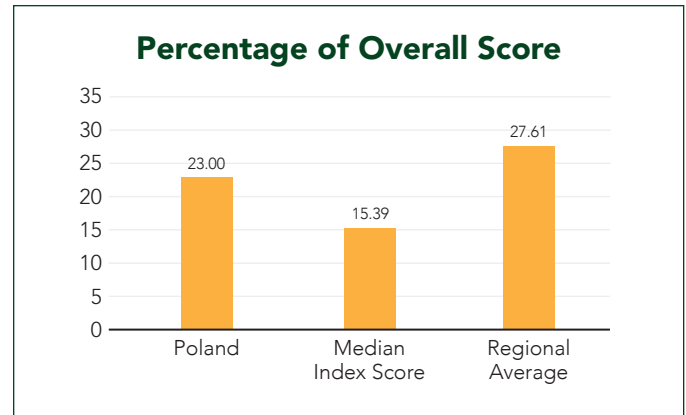
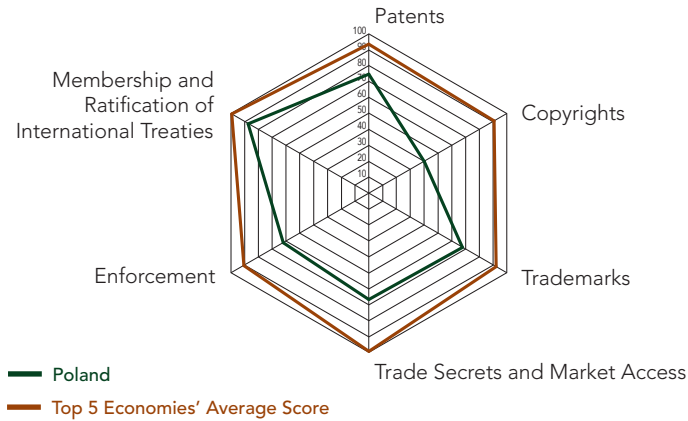
Copyrights, Related Rights, and Limitations

- 11. Availability of frameworks that promote cooperative action against online piracy:** The E-Commerce Act and IP Code provide a wide safe harbor for ISPs, limiting their role in combating online infringement. ISPs are only liable for copyright infringement if on top of being notified and/or aware of infringing activity, they also obtain a benefit from the infringement and there is sufficient proof of this benefit. In addition, ISPs are only required to block access to content if there is a court order.

- 13. Digital rights management (DRM) legislation:** 2013 amendments to the IP Code define circumvention of technological measures as infringement and allow for double damages to be sought. In addition, while the IP Code is fairly nonspecific (it includes electronic rights management information but does not specify access control TPMs), the E-Commerce Act section 33 provides for criminal penalties for unauthorized access in a computer system or ICT system. Specifically, penalties cover “unauthorized copying, use and sharing of protected material, electronic signature or ... legally protected sound recordings through the internet,” with minimum fines of 100,000 pesos (about USD2,000) and 6 months’ to 3 years’ imprisonment). A 2015 legal opinion from the Department of Justice indicates that the above section of the E-Commerce Act can be applied to TPM circumvention. Still, neither the IP Code nor the E-Commerce Act provide penalties for sales/trafficking in circumvention devices.

Enforcement

- 27. Civil and procedural remedies; and 29. Criminal standards including minimum imprisonment and minimum fines:** The Philippines has in place both a judicial and an administrative litigation system, whereby IP infringement cases can be decided by courts or administrative IP tribunals within IPOPPL. The dual system generates some confusion about the validity of similar cases before both the IPOPPL and judicial courts, leading to uncertainty and additional costs. Nevertheless, IPOPPL is generally considered to be a more streamlined and cost-effective route compared to judicial proceedings, where significant backlog and red tape deters the filing of IP cases. IPOPPL also engages in other enforcement activities in partnership with rights holders, including sending warning notices to suspected infringers, conducting inspections and raids, and collecting evidence. The latest data, however, suggest that enforcement actions were lower in 2015–16 compared with previous years. Since 2008, the Philippines also has had in place an Inter-Agency Committee on IPR Enforcement, which *inter alia* dedicates efforts to education campaigns, capacity building, data sharing, and international harmonization.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Legal framework for IP protection largely aligned with EU standards
- ✓ Certain sector-specific IP rights available (including for life sciences)
- ✓ Standard legal measures for trademark and industrial design protection in place
- ✓ Increasing IP enforcement efforts

Key Areas of Weakness

- ✗ Gaps in the legal basis for online copyright protection, including weak provisions on ISP liability, overly broad limitations and exceptions, and lack of penalties for downloading infringing material
- ✗ Relatively high levels of online piracy in comparison with other high-income economies
- ✗ Judicial enforcement sluggish, with red tape, lack of attention to cases of IP infringement, and generally nondeterrent penalties

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	1
3. Patentability of CILs	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0.25	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	0.75
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.66	25. Physical counterfeiting rates	0.57
10. Exclusive rights	0.25	26. Software piracy rates	0.52
11. Cooperative action against online piracy	0.5	27. Civil and procedural remedies	0.5
12. Limitations and exceptions	0.25	28. Pre-established damages	0.5
13. Digital rights management	0.25	29. Criminal standards	0.25
14. Government use of licensed software	0.5	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	1
18. Exclusive rights	0.5	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	0.5
		35. Post-TRIPS FTA	1
TOTAL: 23.00			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Poland's overall score has increased from 63% of the total possible score (with a score of 18.75 out of 30) in the fourth edition of the Index to 66% (23.00 out of 35) in the fifth edition. This increase in score reflects relatively strong frameworks, including at the EU level, in relation to the new indicators added in the fifth edition, particularly the areas of patent opposition, industrial design protection, and customs transparency and reporting on trade-related IP infringement. In addition, Poland's score for indicator 9 rose slightly due to the extension of the term of copyright protection for audiovisual performances to 70 years (up from 50 years).

Patents, Related Rights, and Limitations

2. Patentability requirements: Act 1266, which entered into force in late 2015, updated the Polish IP Law to align it with European and international standards. Notably, the amendments introduced a six-month grace period for determining novelty, clarified that second medical use claims formulated in the product-by-use format are acceptable, and expanded the patentability of gene sequences as long as their industrial application is disclosed. Furthermore, the Ministries of Economic Development and Science have unveiled plans to deregulate patent attorney fees, a move that is expected to make patent protection more accessible for businesses (according to a local survey, the vast majority of Polish innovators view the high costs of patent application procedures, including attorney expenses, as the main obstacle to protecting their IP assets).

Trademarks, Related Rights, and Limitations

18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks; and 30. Effective border measures: A number of measures updated and extended trademark protection for EU member states, including European Directive 2015/2436, which is applicable to national trademarks, and Regulation 2015/2424, which is applicable to EU trademarks. The reform introduces protection for well-known marks for dissimilar products and services (which is already available in Poland), facilitates the registration of nontraditional marks, and formally extends the scope of enforcement activities to include in-transit custom actions and to address preparatory acts such as the production of fake labels. The reform also aims to streamline EU trademark applications and reduce costs.

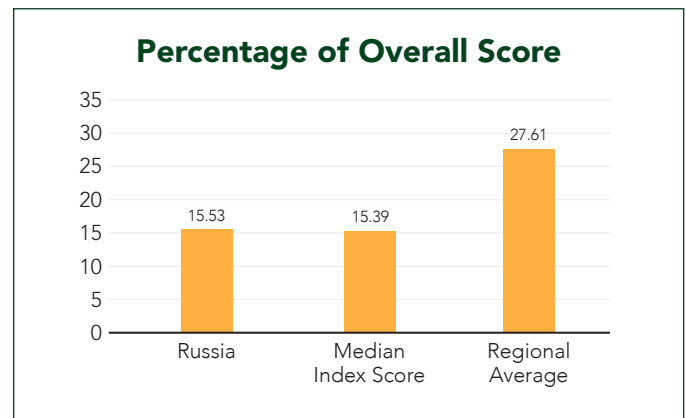
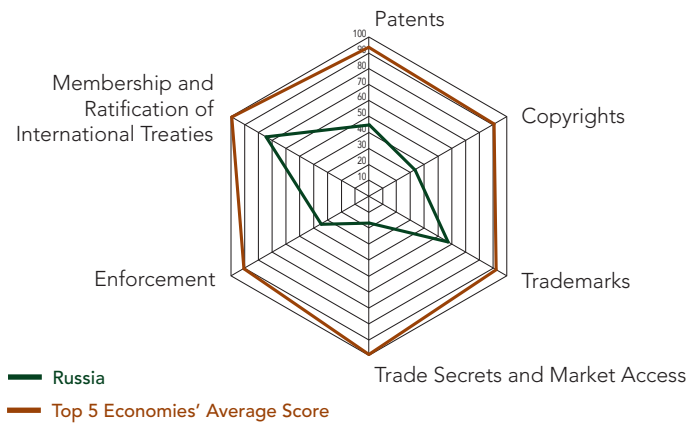
Trade Secrets and Market Access

22. Protection of trade secrets: Trade secrets are protected in Poland through the Unfair Competition Law as well as labor law regulations. Remedies for trade secret infringement include both civil and criminal liability, but court procedures are reportedly long and tend to adjudicate the lowest penalties available. Also, under Polish law, employers cannot impose nondisclosure clauses to exiting employees. Transposition of the EU Trade Secret Directive (in force since July 2016) into Polish law would introduce a proper trade secret definition, second liability claims, and protection of confidentiality during legal procedures.

Enforcement

27. Civil and procedural remedies: A 2016 Supreme Court judgment (in case II CSK 282/15) established a type of bifurcated system for concurrent patent infringement and validity proceedings that is expected to add significant delays. Under the decision, validity proceedings are to be an exclusively administrative proceeding independent from infringement proceedings, and courts should suspend infringement rulings until the Patent Office rules on validity (whereas previously the proceedings were able to run concurrently). Bifurcated systems, used in other countries such as Germany, are intended to streamline infringement proceedings by separating them from questions of validity and typically allowing stays only where there is strong case for invalidity. By permitting a broader use of stays, the new Polish system, by some estimates, will delay infringement rulings by about two years.

28. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement: A recent Constitutional Court decision, in relation to a case against the cable network operator UPC Poland by the Polish Filmmakers Association for rebroadcasting without rights holder permission, lowers the amount of fines available for copyright infringement. Previously, damages and fines for copyright infringement stood at three times the amount of licensing fees due; the Constitutional Court ruling revokes this preestablished standard, thereby weakening a key existing channel in Poland for deterring online piracy. At the time of research, the European Court of Justice (ECJ) was considering whether this approach complies with EU rules in the Infringement Directive.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Legal reform efforts passed in areas of copyright, trade secrets, and biopharmaceutical-related IP rights
- ✓ Although challenges persist, copyright enforcement regime strengthened through notification and takedown system
- ✓ New specialist IP Court in place since 2013
- ✓ Full participant in international IP treaties

Key Areas of Weakness

- ✗ High level of uncertainty regarding *de facto* availability of RDP—current jurisprudence and proposed government policy undermines RDP regime
- ✗ Increasingly punitive localization requirements targeting biopharmaceutical sector
- ✗ Long-standing government efforts to push compulsory licenses as cost-containment measure targeting biopharmaceuticals
- ✗ Parallel imports encouraged as cost-containment measure
- ✗ Persistently high levels of physical and online piracy—latest software piracy rates show an increase to 64% from 62% in 2013

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	0.25	20. Industrial design term of protection	1
3. Patentability of CILs	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	0
7. Regulatory data protection term	0.6	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0.5	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.74	25. Physical counterfeiting rates	0.31
10. Exclusive rights	0.5	26. Software piracy rates	0.38
11. Cooperative action against online piracy	0.5	27. Civil and procedural remedies	0.5
12. Limitations and exceptions	0	28. Pre-established damages	0.25
13. Digital rights management	0.25	29. Criminal standards	0
14. Government use of licensed software	0	30. Effective border measures	0.5
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.5
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.25	32. WIPO Internet Treaties	1
18. Exclusive rights	0.25	33. Singapore Treaty on the Law of Trademarks	1
TOTAL: 15.53			
		34. Patent Law Treaty	1
		35. Post-TRIPS FTA	0

Spotlight on the National IP Environment

Past Editions versus Current Scores

Russia's overall score has increased slightly from 43.5% (13.06 out of 30) in the fourth edition to 44.4% (15.53 out of 35) in the fifth edition. This change in score reflects a relatively strong performance on the 5 new indicators added in the fifth edition. However, continued deterioration in the localization environment decreased Russia's score on indicator 23.

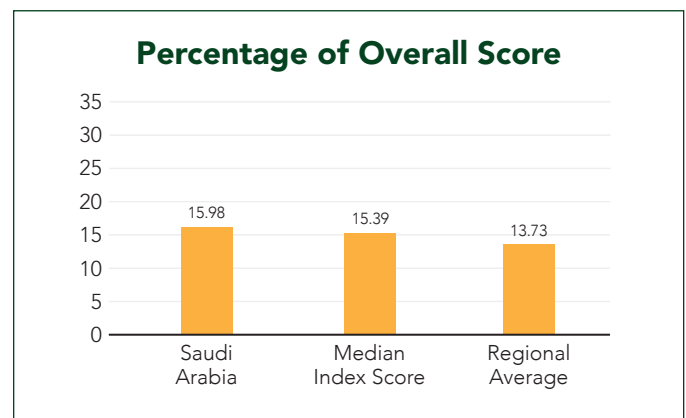
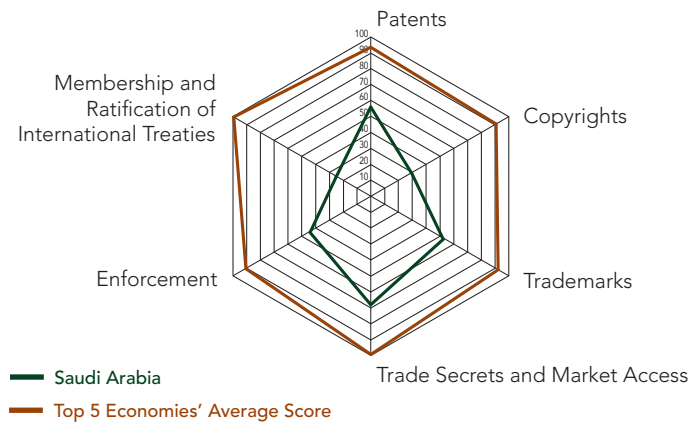
Patents, Related Rights, and Limitations

7. Regulatory data protection (RDP) term: Under its WTO commitments and the 2010 Law of Medicines, Russia has committed to implementing an RDP term of six years. This positive step has significantly strengthened the existing framework and protection mechanisms for pharmaceutical innovation. However, as noted in previous editions of the Index, a lack of progress remains in implementing this commitment and developing a fully functioning form of RDP. Specifically, rights holders have faced uncertainty in the interpretation of the existing legal framework by the judiciary as well as from legislative changes that took effect in 2016. A long-running and pivotal court case between a local generic manufacturer (BioIntegrator) and Novartis has added to the uncertainty. Novartis initially lost its case of exclusivity infringement in spring 2015. However, this decision was reversed later in the year by an arbitration court that held that BioIntegrator did in fact infringe Novartis' exclusivity, specifically its submitted clinical research data as part of its original market authorization application. In yet another court decision in December 2015, the relatively newly established IP Court in Moscow partially revised this judgment. The court upheld the reasoning by the arbitration court that Novartis was entitled to protection for its submitted clinical research data. However, the court also argued that not all data were statutorily protected. Specifically, the court ruled that data that had been published in specialized journals and were viewed as being in the public domain were not protected. Such an interpretation is inconsistent with established international principles of data protection and trade secrets. As such, this judgment creates further uncertainty for what is already a challenging situation for rights holders in Russia. Furthermore, legislative amendments to the Law of Medicines that regulate the time period for the submission of follow-on product applications took effect in 2016. These amendments allow follow-on applicants to submit their applications for market approval four years after market approval for small-molecule products and three years for biologic (large-molecule) products. Given the existing uncertainties in the Russian market with respect to the approval of follow-on products within a current term of exclusivity, a clear risk exists that these amendments will further undermine the practical availability of RDP protection

in Russia. Continued uncertainty over the availability of an effective RDP term in Russia will lead to a reduction in score for this indicator to 0.

Trade Secrets and Market Access

23. Barriers to market access: As noted in previous editions of the Index, the Russian government has targeted innovation as a main impetus behind diversifying and modernizing its economy. This includes a number of strategies and initiatives from Vision 2020 to the latest "National Technology Initiative" and goals of Russian leadership in innovation and high-tech industries by 2035. A unifying theme of these efforts has been a focus on localization. A number of industries and sectors have been targeted with requirements and preferences for local production and manufacturing. As noted in past editions, biopharmaceuticals and medical devices are two high-tech sectors that have been targeted. In 2010, the government passed Federal Law 61-FZ on the Circulation of Medicines stipulating that clinical trials for innovative and generic medicines (bioequivalence studies) must be conducted in Russia if the product is to be submitted for registration. These policies intensified in 2016. For example, in November 2015, the Russian government adopted Resolution No. 1289 "On Restrictions and Conditions of Access of Foreign Essential Medicines to State and Municipal Tenders," which introduced a direct import ban within the procurement system. Access to state purchases of imported medicines are allowed when (at the time supplies are requested) at least two generics produced within the Eurasian Economic Union (EEU) are available for a given product. Foreign manufacturers will be able to participate in a public tender in cases only where fewer than two bids from EEU manufacturers have been submitted. In addition, Decree 1125/2015 made the National Immunobiological Holding Company (owned by state Corporation Rostech) the sole provider of immunobiological products for state needs for the period 2015–17. For the second consecutive year, this overall deterioration of the localization environment in Russia decreased the score for this indicator.



Strengths and Weaknesses

Key Areas of Strength	Key Areas of Weakness
<ul style="list-style-type: none"> ✓ Relatively strong patenting environment – CIIIs allowed ✓ 2013 patent enforcement mechanism in place for biopharmaceuticals through a linkage system ✓ <i>Ex officio</i> authority in place for customs officials 	<ul style="list-style-type: none"> ✗ Significant gaps in copyright framework—chiefly relating to protection online ✗ Increasing number of localization requirements ✗ Uncertainty over enforcement of guidelines for use of only licensed software by government agencies ✗ Persistently high levels of physical and online piracy—latest software piracy rates at 49% ✗ 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

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	0.4
3. Patentability of CIIIs	0.75	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	1	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.5
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	0.75	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.54
9. Term of protection	0.53	26. Software piracy rates	0.51
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.5
11. Cooperative action against online piracy	0	28. Pre-established damages	0
12. Limitations and exceptions	0.5	29. Criminal standards	0.5
13. Digital rights management	0.25	30. Effective border measures	0.5
14. Government use of licensed software	0.25	31. Transparency and public reporting by customs	0.5
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	0
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.25	34. Patent Law Treaty	1
18. Exclusive rights	0.5	35. Post-TRIPS FTA	0
TOTAL: 15.98			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

- 4. Pharmaceutical-related patent enforcement and resolution mechanism:** Saudi Arabia introduced a patent linkage system in 2013. Under Circular Letter No. 7448, the Saudi Food and Drug Authority requires follow-on generic applicants to submit a letter from the Saudi Patent Office and/or the Gulf Cooperation Council 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. This positive initiative greatly reduces the risk that follow-on biopharmaceutical products will be infringing a reference product's exclusivity period.
- 7. Regulatory data protection (RDP) term:** The 2005 Minister of Commerce and Industry's decision No. 3218 "Regulations for the Protection of Confidential Commercial Information" provides specific protection for submitted clinical research data as part of a biopharmaceutical market registration application. Article 5 of the regulations provides a clear and unambiguous protection term of five years from the date of approval and states that relevant Saudi authorities "shall undertake to protect such information against unfair commercial use, for a minimum period of five years from the date of obtaining the approval." The existence of this RDP is a positive feature of Saudi Arabia's national IP environment. However, uncertainty exists over the actual availability of this protection as industry reports have suggested that follow-on products have been approved through the use of "indirect reliance" on submitted clinical research data. International standards and best practices for RDP are quite clear on this subject: neither direct nor indirect reliance on submitted clinical test data should be used to approve follow-on products within the specified and offered term of protection. Should reports of this practice persist, Saudi Arabia's score on this indicator will be reduced to 0.

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. And the estimated rate of software piracy by the Business Software Alliance for 2015 was 49%, a marginal change from the 2009 estimated rate of 51%.

Enforcement

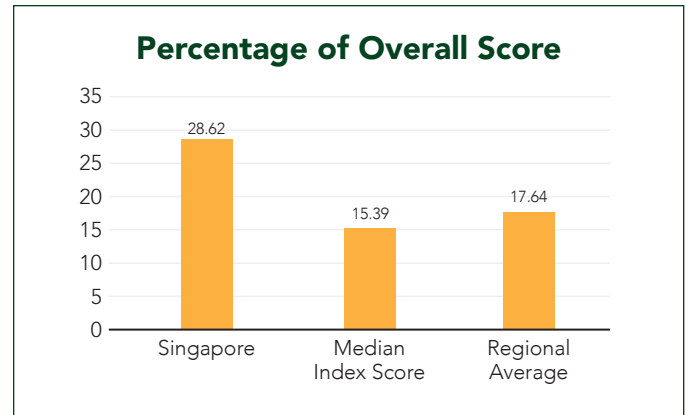
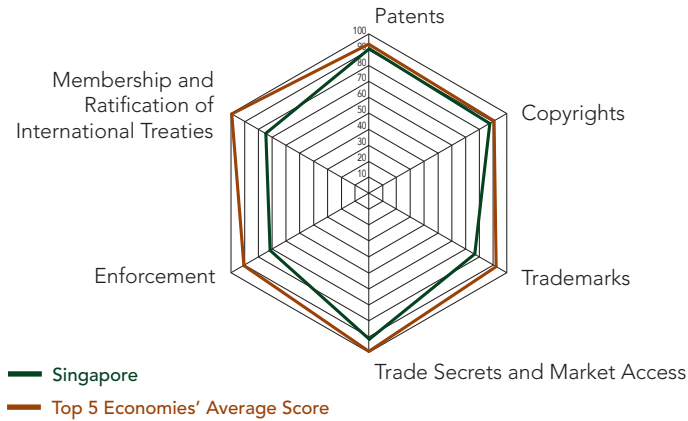
- 30. Effective border measures; and 31. Transparency and public reporting by customs authorities of trade-related IP infringement:** Ministerial Decision No. 1277, 2004 provides border measures relating to the infringement of IP rights. Article 2 provides customs officers with an *ex officio* authority: "The Customs Authorities may suspend the clearance of goods suspected of bearing imitated trademarks upon having prima facie evidence to this effect." It is not clear the extent to which this provision applies to goods in transit. Since 2009, Saudi customs authorities have published annual reports. These reports include statistics on customs seizures of counterfeit goods. They do not, however, include data on countries of origin.

Membership and Ratification of International Treaties

Saudi Arabia scores low in its participation in and ratification of international treaties because it is not a contracting party to any of the IP treaties included in the Index apart from the Patent Law Treaty, to which it acceded in 2013.

Copyrights, Related Rights, and Limitations

- 10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); and 11. Availability of frameworks that promote cooperative action against online piracy:** Saudi copyright law provides for basic exclusive rights and 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 is in place that provides a notification and takedown mechanism for infringing online content, nor is any similar legal framework in place to specifically address the issue of online infringement. The blocking of web content, including copyright-infringing content, occurs sporadically by the Ministry of Culture and Information. No official or



Strengths and Weaknesses

Key Areas of Strength

- ✓ Signatory to the TPP
- ✓ 2014 copyright amendments enforced through 2016 High Court order
- ✓ Advanced national IP framework in place
- ✓ Life sciences IP rights in place and available
- ✓ Patent enforcement legal framework adequate and generally applied

Key Areas of Weakness

- ✗ Estimated software piracy has decreased from 35% in 2009 to 30% in 2015—but is still quite high for a high-income economy
- ✗ Lack of transparency and data on customs seizures of IP-infringing goods

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	1	20. Industrial design term of protection	0.6
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	0.75
4. Pharmaceutical-related enforcement	1	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	0.75	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.74	25. Physical counterfeiting rates	0.58
10. Exclusive rights	0.75	26. Software piracy rates	0.7
11. Cooperative action against online piracy	1	27. Civil and procedural remedies	1
12. Limitations and exceptions	1	28. Pre-established damages	1
13. Digital rights management	0.75	29. Criminal standards	0.75
14. Government use of licensed software	1	30. Effective border measures	0.75
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.25
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	0.75	33. Singapore Treaty on the Law of Trademarks	1
TOTAL: 28.62			
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	1

Spotlight on the National IP Environment

Past Editions versus Current Scores

Singapore's overall score has decreased from 85% (25.63 out of 30) in the fourth edition to 82% (28.62 out of 35) in the fifth edition. This decrease in score reflects a relatively mixed performance in the 5 new indicators added in the fifth edition. For example, Singapore customs authorities do not publish annual or systematic statistics on seizures of IP-infringing goods. Annual enforcement statistics are published only for offenses and enforcement activities related to cigarettes, alcohol, and fuel gauge noncompliance. Only intermittent press releases on IP-related enforcement activities are published.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); and 11. Availability of frameworks that promote cooperative action against online piracy:

As noted in previous editions of the Index, in 2014 Singapore passed amendments to its Copyright Act that strengthened rights holders' recourse mechanisms against online piracy. For many years, Singapore has faced the challenge of relatively high levels of illegal downloading. The amendments to the Copyright Act 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." In February 2016, the High Court issued its first order under these amendments, ordering all of Singapore's major ISPs to block the piracy website Solarmovie.ph. The application to block the website was made by the industry association Motion Picture Association of America and its member companies. Local legal analysis suggests that the relatively short time span of two months from application to the High Court to the actual issuing of the order presents what could be a practical and workable mechanism to reduce the availability of pirated content in Singapore.

9. Copyright (and related rights) term of protection;

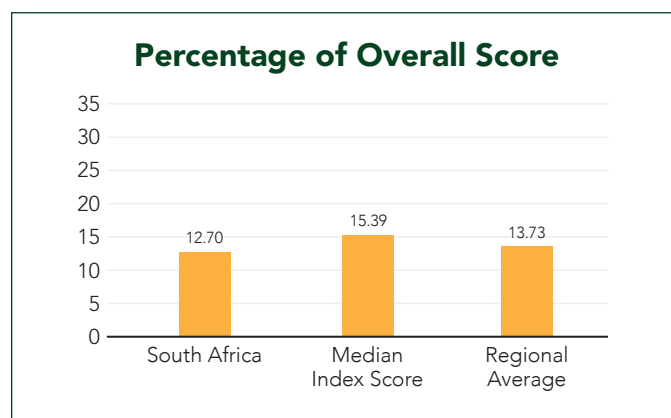
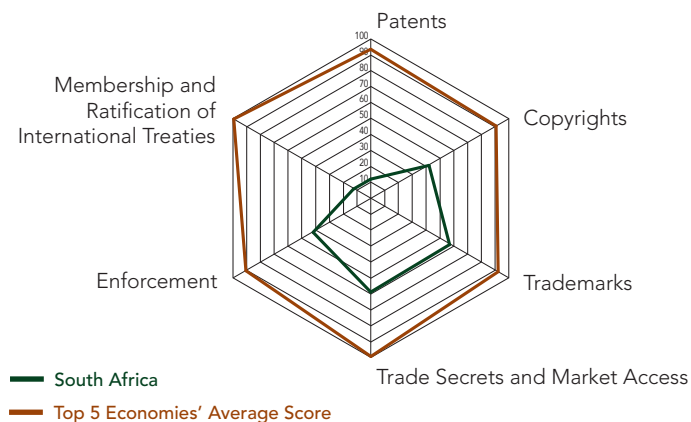
12. Scope of limitations and exceptions to copyrights and related rights; and 13. Digital rights management (DRM) legislation:

In August 2016, the Ministry of Law and the Intellectual Property Office of Singapore issued a consultation document for proposed changes to Singapore's copyright law. The consultation proposes changes to a wide swath of existing copyright statute and regulations, including term of protection; exceptions and limitations (including the potential broadening of educational use exceptions); and increasing the number of exceptions available to unlocking existing TPMs or DRMs in place. Some of the proposed measures will harmonize Singapore's copyright regime with existing international standards and treaty obligations under, for example, the TPP Agreement.

Others aim to simplify and modernize Singapore's copyright law. At the time of research, no final proposed legislation had been presented to the Parliament of Singapore.

Trademarks, Related Rights, and Limitations

16. Discrimination/restrictions on the use of brands in the packaging of different products: In early 2016, the Parliament of Singapore passed a set of amendments to the Tobacco (Control of Advertisements and Sale) Act. These amendments largely mirror proposals put forth in a consultation document by the Ministry of Health in 2015, including enhanced restrictions on point-of-sale advertising and a ban on "emerging tobacco products." The amendments are set to come into force in the second half of 2017 and regulations and guidelines are currently being finalized by relevant government agencies. Prior to the public consultation in 2015, the Ministry of Health had discussed the possibility of including proposals for standardized or plain packaging. The introduction of such packaging for tobacco products in Singapore would significantly restrict the use of brands, trademarks, and trade dress on the retail packaging of tobacco products and severely limit the ability of trademark owners to exploit their rights. It would also decrease Singapore's score on this indicator from 1 to 0.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Draft copyright amendments and 2016 High Court ruling provide greater clarity on copyright exceptions and potentially insert DRM protection into the Copyright Act
- ✓ Relatively low level of software piracy—33% in 2015—compared with other African economies

Key Areas of Weakness

- ✗ Increasing policy emphasis on localization and local content requirements through public procurement and 2016 Industrial Policy Action Plan (IPAP)
- ✗ New IP Consultative Framework 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 of use of existing developed IP
- ✗ Weak protection for patents and related rights
- ✗ Life sciences IP rights not in place
- ✗ High level of counterfeit goods

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0	20. Industrial design term of protection	0.5
3. Patentability of CILs	0	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.75
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.53	25. Physical counterfeiting rates	0.5
10. Exclusive rights	0.5	26. Software piracy rates	0.67
11. Cooperative action against online piracy	0.5	27. Civil and procedural remedies	0.5
12. Limitations and exceptions	0.25	28. Pre-established damages	0.25
13. Digital rights management	0.5	29. Criminal standards	0.5
14. Government use of licensed software	0.25	30. Effective border measures	0.5
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	0.5
18. Exclusive rights	0.5	33. Singapore Treaty on the Law of Trademarks	0
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0
TOTAL: 12.70			

Spotlight on the National IP Environment

Past Editions versus Current Scores

South Africa's overall score has decreased from 39% (11.74 out of 30) in the fourth edition to 36% (12.70 out of 35) in the fifth edition. This decrease in score reflects a relatively mixed performance on the 5 new indicators added in the fifth edition. For example, South African customs authorities do not publish annual or systematic statistics on seizures of IP-infringing goods. This drop in score is also the result of the increased policy focus on localization and local content requirements.

General Comments

In July 2016, the Department of Trade and Industry (DTI) released the document "Intellectual Property Consultative Framework." This is not a legislative document or an overview of proposed policy reforms. Rather, the stated purpose of the framework is "not to prescribe South Africa's IP policy position, but to put forward the perspective of the DTI in a consultative instrument to facilitate what will be continuous engagement with governmental partners and society at large." The framework comes on the back of a long-standing debate in South Africa over IP rights and a number of legislative reform efforts over the past few years including a now withdrawn draft patent bill. It is a positive step that the government of South Africa recognizes the need for reform to its national IP environment and the value of consulting all stakeholders in that process. Unfortunately, this framework document focuses rather solely on one type of IP right, patents, and mainly on one high-tech sector, biopharmaceuticals. Like the Ministry of Science and Technology's 2014 flagship policy document for the biotechnology sectors, *The Bio-Economy Strategy*, the framework focuses on ways in which South Africa could better access existing and developed forms of IP including through the expanded use of compulsory licenses and parallel importation. There is no equivalent discussion on the manner in which IP can be created, be commercialized, and become an industrial asset. For economies—emerging and developed alike—the creation of new forms of intangible assets and IP are what will drive innovation, technological advances, and, ultimately, economic development and growth. IP rights are a critical component of this.

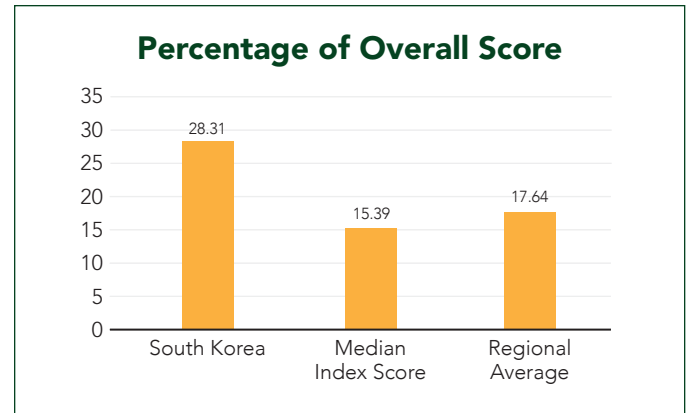
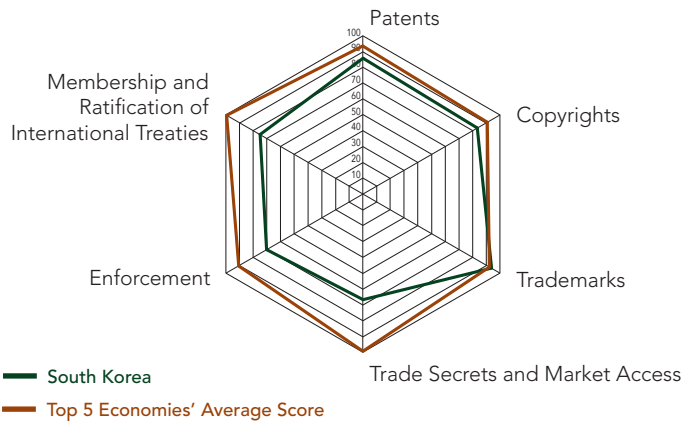
Copyrights, Related Rights, and Limitations

12. Scope of limitations and exceptions to copyrights and related rights: As mentioned in previous editions of the Index, South Africa is currently reforming its copyright law. Draft Copyright Act amendments were published in 2015 and made open to public consultations. These amendments contain numerous positive provisions relating to DRMs and TPMs corresponding with those already contained in chapter 12 of the Electronic Communications and Transactions Act. In addition, the proposed amendments also introduce a system of "fair use" exceptions to copyright. At the time of research, no final bill had been presented to the South African Parliament. However, in a separate development,

the High Court of South Africa finally made its judgment in the long-running court case between Moneyweb and Fin24 (two news websites) in May 2016. Of particular significance, the court's detailed outline of applicable criteria help define the meaning of fair dealing and relevant exceptions and limitations contained in the current Copyright Act. Although this judgment does not represent a sea change in South Africa's copyright environment—as detailed in previous editions of the Index, numerous gaps in copyright law still exist and significant challenges persist with regard to both digital and physical piracy—it nevertheless provides an important clarification to what had, up until now, been an area of copyright in which the case law was very sparse.

Trade Secrets and Market Access

23. Barriers to market access: As mentioned in previous editions of the Index, the South African government has for many years focused on developing its domestic economy through a range of localization policies. These policies are both general as well as industry and sector specific. For example, South Africa has long-standing local content requirements for certain sectors including broadcasting. Within public procurement, significant local content requirements have been in place since 2011 for a host of specially designated sectors ranging from automotive (buses), set-top boxes, clothing, and furniture. Local content requirements range from 10% to 100%, depending on the industry. More generally, the National Industrial Participation Programme (NIP) has been in place since the late 2000s. The NIP requires that foreign suppliers awarded government contracts within a month of signing a contract with the procuring entity also sign an obligation agreement where they commit to local economic activities. The ultimate purpose of the NIP is to build local capacity and partnering between local South African companies and international industry leaders. In 2016, the government intensified both these public procurement policies and the NIP framework, in particular its localization requirements. For instance, the DTI in the 2016 *Industrial Policy Action Plan 2016-17-2018-19* outlined new policies that strengthen these requirements. To begin with, the IPAP confirms the government's objective (first outlined in the 2014 five-year plan *Medium Term Strategic Framework*) of achieving a level of 75% local procurement. Specifically, the DTI is strengthening cross-governmental enforcement activities and ensuring greater compliance and application of these localization requirements. The IPAP also, both more broadly and in the sectoral focus-area discussions, places a heavy emphasis on the transfer of technologies from international rights holders to local companies. Conditioning market access and access to opportunities for public procurement on local partnering requirements and the sharing or divulging of proprietary technologies with local partners present significant barriers to trade and impediment to investment.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Patenting standards generally pro-innovation and in line with international best practices, with crucial exceptions
- ✓ Important strides in implementing U.S.-Korea Free Trade Agreement (KORUS) commitments, but some ways to go in certain areas
- ✓ Some improvement in government licensing of software
- ✓ Relatively robust legal framework for trademark and industrial design protections
- ✓ Enforcement environment progressing

Key Areas of Weakness

- ✗ Remaining hurdles in application of civil remedies, but legislative and judicial reform set to tackle them
- ✗ Gaps in transparency and public reporting by customs authorities of trade-related IP infringement
- ✗ Not a contracting party to the Patent Law Treaty, although some elements contained in the treaty are reflected in the Korean Patent Act
- ✗ Some barriers to market access that discriminate against foreign IP owners

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	1
2. Patentability requirements	1	20. Industrial design term of protection	0.8
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	1
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.75
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	0.5
7. Regulatory data protection term	0.6	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	0.75	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.74	25. Physical counterfeiting rates	0.52
10. Exclusive rights	1	26. Software piracy rates	0.65
11. Cooperative action against online piracy	1	27. Civil and procedural remedies	0.75
12. Limitations and exceptions	0.75	28. Pre-established damages	0.75
13. Digital rights management	1	29. Criminal standards	1
14. Government use of licensed software	0.5	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.25
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	0.75	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	1
TOTAL: 28.31			

Spotlight on the National IP Environment

Past Editions versus Current Scores

South Korea's overall score has increased from 78% of the total possible score (with a score of 23.32 out of 30) in the fourth edition of the Index to 81% (28.31 out of 35) in the fifth edition. This increase in score is partly due to South Korea's accession to the Singapore Treaty on the Law of Trademarks and improvements in relation to indicator 2 on the patenting system and indicator 14 on the use of licensed software in government agencies. South Korea displays mixed scores in relation to the new indicators in the fifth edition; for instance, it has a relatively strong industrial design protection but faces gaps in customs reporting on IP infringement.

Patents, Related Rights, and Limitations

- 2. Patentability requirements:** Patent amendments that entered into force in 2016 streamlined the patent application system overall, shortening the time frame for filing a request for examination from five to three years, which is closer to the time frame in other jurisdictions such as the EU. In addition, the Supreme Court upheld the patentability of second medical use claims in its 2016 decision regarding a patent on the drug Lyrica. The case also clarified patent law in respect to interpreting prior art, in particular allowing for a more expansive and pragmatic understanding of prior art references and non-obviousness for life sciences inventions, where subject matter is relatively less predictable compared to other fields.
- 8. Patent opposition:** At present, South Korea does not provide for an explicit patent opposition system; however, *inter partes* invalidation actions before the IP Tribunal are available following patent registration, with the average pendency reportedly about 10 months. Patent amendments introduced a new post-grant opposition system in South Korea that will come into force in 2017 and is expected to help promote high-quality patents, streamline the system further, and reduce costs and uncertainty. Under the new system, any person will be able to request the cancellation of a patent with the KIPTAB (Korean Intellectual Property Trial and Appeal Board) within six months from grant of the patent. Grounds will be restricted to prior art grounds and an appeal will be available only to the patentee.

Trademarks, Related Rights, and Limitations

- 18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks:** Trademark amendments that entered into force in 2016 took some positive, mainly procedural steps to enhance trademark protection, such as easing the cancellation of unused marks as well as protecting against bad faith registrations. They also better ensure

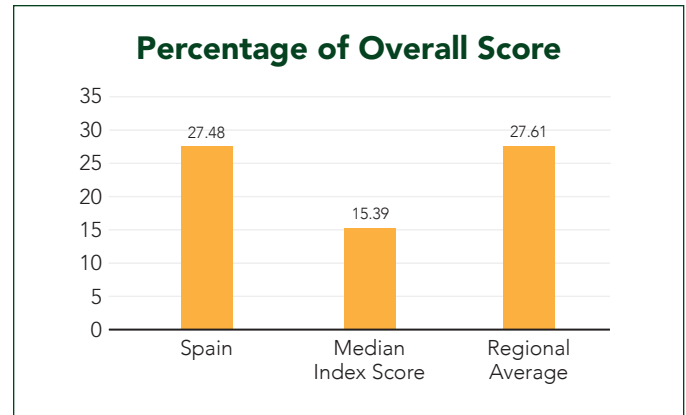
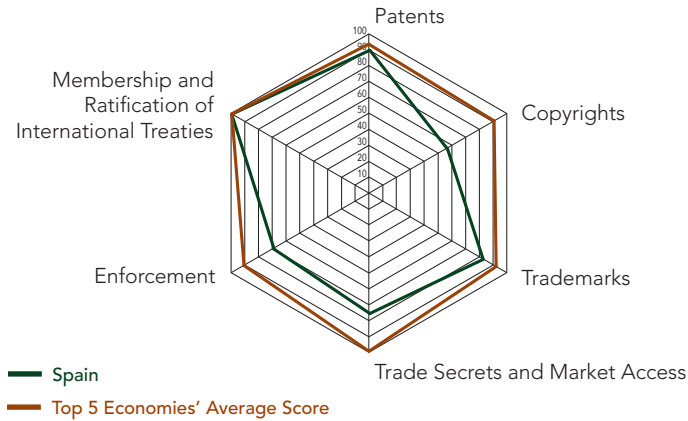
the protection of trademarks used in online settings by explicitly recognizing electronic use as a statutory use of trademarks.

Trade Secrets and Market Access

- 24. Regulatory and administrative barriers to the commercialization of IP assets:** In March 2016, the Korean Free Trade Commission issued a revised version of the "Guidelines on the Unfair Exercise of IP Rights." The previous version was criticized for overregulating licensing and unduly limiting patent rights by considering *de facto* essential patents as SEPs without any involvement or consent from the owner, and for establishing ambiguous requirements and conditions under which such SEPs must be licensed to interested parties. The new text provides a narrower definition of SEPs that does not include *de facto* standards, which are to be reviewed separately. It also restricts the definition of unfair refusal to license, limited to actions that constitute a clear barrier to manufacturing, supplying, or selling a given technology and the lack of substitutable technology. Hence, overall "abuse of licensing" is now viewed as exceptional and is limited significantly.

Enforcement

- 27. Civil and procedural remedies:** Civil Procedure Act amendments that entered into force in January 2016 centralized jurisdiction of IP rights (except for copyright and trade secrets) both at first instance and at appeal level. Patent infringement actions can now be filed in five specialized district courts and not in any district court, and appeals are addressed in the Patent Court. Consolidation of authority in the Patent Court is expected to make injunctive relief and damages more clearly available and, as the Patent Court will rule on appeals to both infringement and invalidity, preclude fragmentation when both types of proceedings run concurrently. Patent amendments also enhanced the availability of civil relief, shifting the burden of proof in patent infringement litigation and damages assessment to the alleged infringer.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Standard IP rights in legislation, including many sector-specific rights
- ✓ Efforts to strengthen and modernize patent and copyright frameworks in order to align with EU and international standards
- ✓ Civil and criminal reform enhances remedies available for IP infringement
- ✓ Court decisions typically in line with ECJ jurisprudence in a number of areas

Key Areas of Weakness

- ✗ Counterfeiting and piracy levels remain high compared to other EU economies despite reforms
- ✗ Gaps in patent system lead to a disproportionate volume of weak national patents
- ✗ Online copyright regime displays important gaps in legislation (including in terms of ISP liability and exceptions to copyright) and, although growing, inadequate action on the ground
- ✗ Enforcement operations face significant delays and are often nondeterrent, although improvements are visible

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	0.75	20. Industrial design term of protection	1
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	0.75
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.75
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	0.75
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.63	25. Physical counterfeiting rates	0.54
10. Exclusive rights	0.5	26. Software piracy rates	0.56
11. Cooperative action against online piracy	0.5	27. Civil and procedural remedies	0.75
12. Limitations and exceptions	0.5	28. Pre-established damages	0.5
13. Digital rights management	0.75	29. Criminal standards	0.5
14. Government use of licensed software	0.5	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.75	32. WIPO Internet Treaties	1
18. Exclusive rights	0.75	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	1
		35. Post-TRIPS FTA	1
TOTAL: 27.48			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

2. Patentability requirements: Spain's patent law provides for standard patentability criteria of novelty, inventive step, and industrial application and is considered to be fairly pro-technology in terms of the ability to patent biotechnology, life sciences, and computer-related inventions, although some exceptions exist. In relation to life sciences inventions, patent amendments adopted in 2015 that will enter into force in 2017 fill in legislative gaps concerning the ability to patent new therapeutic applications for already known substances and compositions. More generally, the majority of patents in Spain are currently reviewed under an abbreviated procedure where substantive examination is optional, resulting in a relatively large volume of weak patents and a high rate of invalidations and additional costs. Recognizing these barriers, under the new patent amendments formal substantive examination will be required and a post-grant opposition system for national-level filings will be introduced.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); 11. Availability of frameworks that promote cooperative action against online piracy; and 12. Scope of limitations and exceptions to copyrights and related rights: Spanish copyright law provides basic exclusive rights to redress copyright infringement. During 2011–15, Spain introduced a major, multiyear legislative reform aimed at addressing high levels of piracy, particularly in the online sphere. According to one study, nearly 90% of digital content is infringing, with growing consumption of unauthorized content particularly visible in the areas of TV, gaming, and sports. A 2016 study from the consultancy IDC also suggests a rate of 45% of illegal software use in businesses. Amendments to the Intellectual Property Act and the Criminal Code in 2014–15 do not entirely clarify liability of ISPs, criminalizing the act of facilitating in an active and non-neutral way but limiting liability for ISPs that provide merely technical intermediary services. In addition, the Sinde Act of 2012 created a partial notice and takedown system, whereby the Intellectual Property Commission may receive notices from copyright owners and determine which should be sent on to relevant ISPs, who then should either block the identified content within 72 hours of notice or the case is brought before a court. Although the system is a positive step, data are mixed regarding its effectiveness. According to the most recent data from the Ministry of Education, as of mid-2015, close to 500 complaints had been filed, but just over half were sent to ISPs (although of those notices, the government reports a 90% response rate). Some rights holders report a much

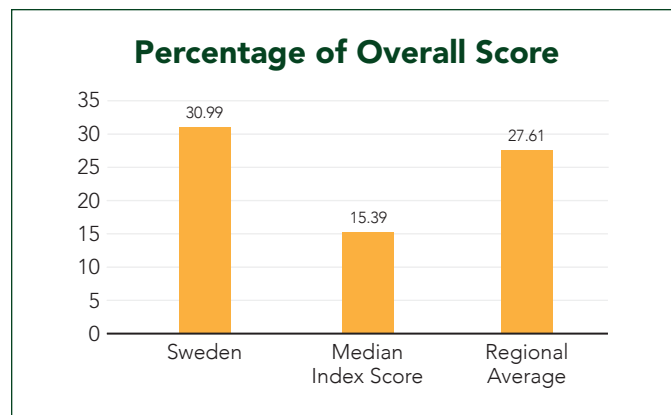
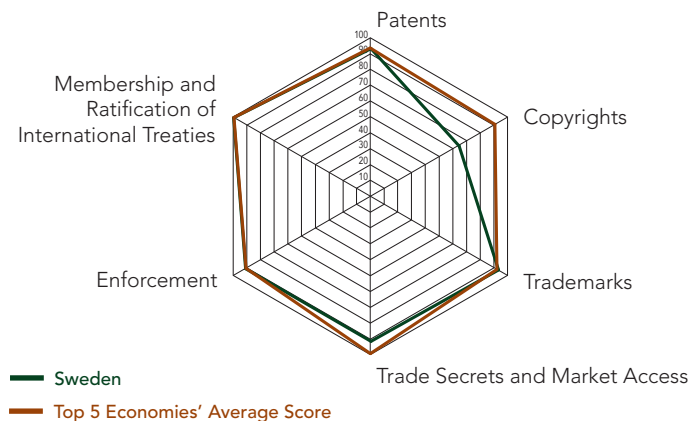
lower rate of response (as low as 10% in 2015). In addition, extreme delays reportedly exist within the IP Commission, with notices taking by some estimates over one year to reach resolution.

Trademarks, Related Rights, and Limitations

18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks: Spain provides many standard legal measures to protect against infringement of trademarks that are enforceable through the commercial and criminal courts. Currently, invalidation proceedings are not available before the Spanish patent office. But under the new EU trademark directive, Spain is required to put in place by 2023 an administrative procedure for opposition and invalidity proceedings. Counterfeiting is a significant problem in Spain: according to EUIPO data, Spain ranks fifth in the EU for the intentional purchasing of counterfeits and is one of the top five economies in terms of economic impact from fake or illicit alcohol, sports items, cosmetics, clothing, and toys.

Enforcement

27. Civil and procedural remedies; and 29. Criminal standards including minimum imprisonment and minimum fines: Generally speaking, enforcement through the courts is considered to be slow, such that by the time decisions are issued (if issued at all), the relevance of the ruling may be limited and ineffective. Standard remedies and penalties are available, although damages awarded are often low relative to other EU member states. Amendments to the criminal code in 2015 increased penalties for IP crimes, including for noncommercial infringement where indirect and/or non-neutral benefit exists, and raised seizure and confiscation powers for judges and police. However, even though IP specialization is growing, still greater IP expertise and resources are needed by the judiciary as well as other enforcement bodies to effectively apply the new provisions.



Strengths and Weaknesses

Key Areas of Strength

- ✓ New specialized IP appeal court expected to increase quality and predictability of decisions
- ✓ Strong and sophisticated national IP environment
- ✓ Strong enforcement and guidelines on the use of licensed software in government agencies

Key Areas of Weakness

- ✗ 2016 court ruling in *Bredbandsbolaget* case severely limits rights holders' recourse mechanisms for copyright infringement online
- ✗ Plain packaging discussions ongoing

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	1	20. Industrial design term of protection	1
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	1
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.6	25. Physical counterfeiting rates	0.85
10. Exclusive rights	0.25	26. Software piracy rates	0.79
11. Cooperative action against online piracy	0	27. Civil and procedural remedies	0.75
12. Limitations and exceptions	1	28. Pre-established damages	1
13. Digital rights management	1	29. Criminal standards	1
14. Government use of licensed software	1	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	1	33. Singapore Treaty on the Law of Trademarks	1
TOTAL: 30.99			
34. Patent Law Treaty			
35. Post-TRIPS FTA			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Sweden's overall score has decreased from 90.4% (27.12 out of 30) in the fourth edition to 88.5% (30.99 out of 35) in the fifth edition. Although this score reflects a strong performance in the 5 new indicators added in the fifth edition, the negative developments in the availability of recourse mechanisms for copyright infringement online have decreased Sweden's score.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking); and 11. Availability of frameworks that promote cooperative action against online piracy: Antipiracy efforts have been further weakened in the country following a landmark court decision establishing that ISPs have no obligation to block access to pirate websites unless they provide "direct assistance" to the primary infringers. On this basis, the Stockholm District Court refused an injunction against an ISP (*Bredbandbolaget*) to block access to two torrent sites. As outlined in previous editions of the Index, the lawsuit was brought against *Bredbandbolaget* in 2014 by the entertainment industry, seeking a court order to force the ISP to block its subscribers from accessing the Pirate Bay file sharing website and the Swefilmer streaming service (the latter of which was closed down in July 2015). 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 for 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. By in effect removing virtually any copyright infringement responsibility from ISPs, this judgment severely restricts the means by which copyright holders can enforce their rights online. As a result, Sweden's score has declined on this indicator.

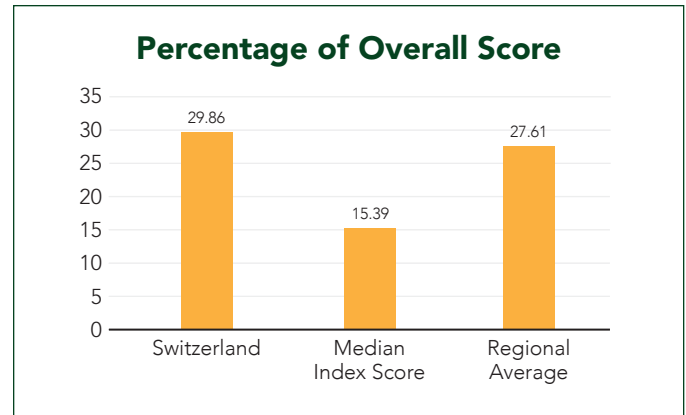
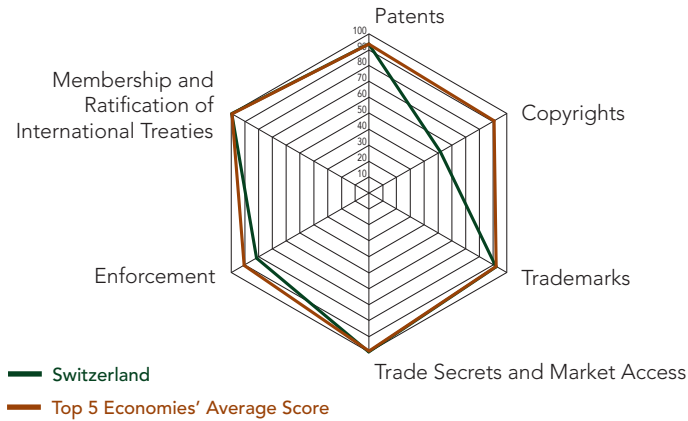
Trademarks, Related Rights, and Limitations

16. Discrimination/restrictions on the use of brands in the packaging of different products: In February 2016, the Swedish Tobacco Directive Inquiry published its review of the Swedish Tobacco Act, presenting proposals on how to curb tobacco use. The review mentioned plain packaging as an effective tool to this effect, but it noted

that plain packaging would affect the rights provided under the Swedish Freedom of the Press Regulation. In October 2015, a judge concluded that introducing plain packaging would require a constitutional change, as tobacco packaging is regarded as printed text and, as such, is protected by freedom of the press rules. Following these public pronouncements, in September 2016 the Parliamentary Media Constitution Committee did not table a relevant amendment to the Freedom of the Press Act, believing it lacked the proper mandate to modify the Constitution. According to the procedure described by the committee, such constitutional change would need to be approved twice under two different legislative terms, and could thus be introduced at the earliest in 2019. The introduction of plain or standardized packaging would significantly restrict the use of brands, trademarks, and trade dress on retail packaging, undermining the benefits of trademarks to businesses and consumers alike, and setting a negative precedent for IP policy. The passage of such legislation would decrease Sweden's score on this indicator from 1 to 0.

Enforcement

27. Civil and procedural remedies: A welcome development is the launch of a new IP specialized court—the Patent and Market Court—that will grant final decisions on all IP litigation (further appeals to the Swedish Supreme Court can be allowed only under exceptional circumstances). The judicial reform is expected to further increase the quality and predictability of IP decisions in Sweden as well as shorten the time and costs of proceedings. One of the most awaited decisions the court will have to handle is the appeal in the above-mentioned *Bredbandbolaget* case.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Strong and sophisticated national IP environment
- ✓ Strong patent rights and enforcement environment
- ✓ All biopharmaceutical IP rights in place

Key Areas of Weakness

- ✗ Overly broad interpretation of limitations and exceptions for copyright
- ✗ Crucial gaps in enforcement and prosecution of online copyright infringement

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	1	20. Industrial design term of protection	1
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	1
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.63	25. Physical counterfeiting rates	0.71
10. Exclusive rights	0.25	26. Software piracy rates	0.77
11. Cooperative action against online piracy	0.5	27. Civil and procedural remedies	0.75
12. Limitations and exceptions	0.25	28. Pre-established damages	0.75
13. Digital rights management	0.5	29. Criminal standards	0.75
14. Government use of licensed software	1	30. Effective border measures	1
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	1	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	1
		35. Post-TRIPS FTA	1
TOTAL: 29.86			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Switzerland's overall score has increased from 83% (24.90 out of 30) in the fourth edition to 85% (29.86 out of 35) in the fifth edition. This increase in score reflects a strong performance in the 5 new indicators added in the fifth edition.

Patents, Related Rights, and Limitations

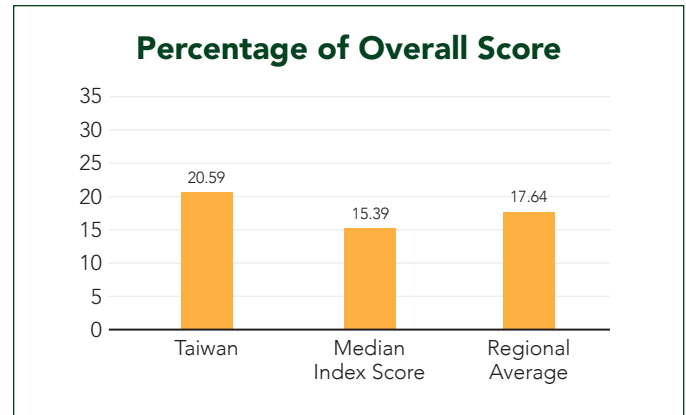
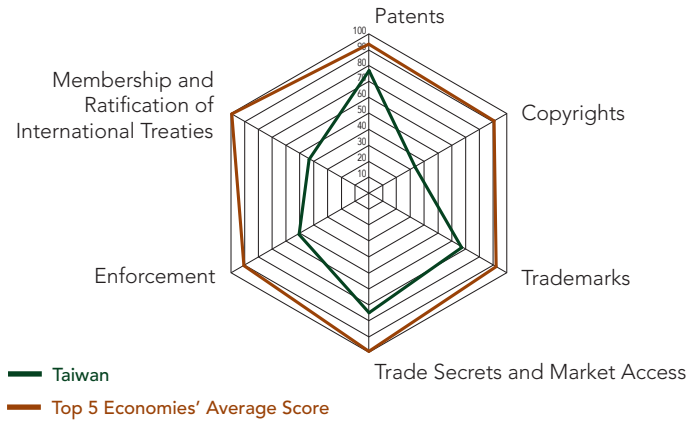
8. Patent opposition: Since 2008, Switzerland has in place a patent opposition system that, similar to the European Patent Office (EPO), is available to any third party for nine months after the patent is granted. The Swiss Patent Federal Court has streamlined procedures that ensure a relatively quick and efficient process. Oppositions are allowed on the basis of non-patentable inventions per Articles 1(a) and 1(b) of the Swiss Patent Statute (the human body and its elements and sequences of genes), as well as inventions whose application would be contrary to public morality. The Patent Office can decide to revoke or uphold the patent fully or partially.

not react quickly to limit damages that infringers cause. The latest draft text also adds additional hurdles. For instance, in the current text, rights holders should reimburse ISPs the cost of their interventions. It also mentions that rights holders can ask the IP Office to block access to infringing content, but both ISPs and content owners can suspend the measures by appealing without having to prove the content's legality (Article 66(d)). The draft amendments do not effectively address the issue of private use exceptions (Articles 19 and 43). As a result of its lack of progress on providing strong enforcement mechanisms to rights holders, Switzerland was added to the USTR's 2016 *Special 301 Report* and listed as a "Priority Watch List" country.

Copyrights, Related Rights, and Limitations

11. Availability of frameworks that promote cooperative action against online piracy; 12. Scope of limitations and exceptions to copyrights and related rights; and 13.

Digital rights management (DRM) legislation: As outlined in previous editions of the Index, a lack of online copyright enforcement has persisted in Switzerland since the 2010 Logistep ruling exposed the uncertainties of the current legal regimes and *de facto* made it legal to download from infringing websites by preventing the collection of infringers' IP addresses over personal data concerns. Furthermore, under existing rules and interpretation, a wide copyright exception allows Internet users to legally download any content for private use, even from an illegal source. A draft copyright law was presented for public discussion in December 2015 but, given the more than 1,200 contributions received, is undergoing further review by a new multistakeholder group (AGUR12 II) building on the work done by the first AGUR12 group. Indeed, the first group's work only partially filled in the current gaps, and it added new concerns as well. The proposed recommendations reaffirmed the admissibility in court of data about copyright violations collected by rights holders, but limited this possibility to serious breaches and peer-to-peer (P2P) network activities (Article 66(j)). It also set up a limited mechanism for ISPs to send warning notifications to users engaged in infringing activities. At the third notice, courts would be allowed to transmit the infringer's name to the rights holder, who would have to start civil actions (Article 66(g)). In addition to being costly, this system would



Strengths and Weaknesses

Key Areas of Strength

- ✓ Overall, adequate legislative framework for patent protection, including for sector-specific rights
- ✓ Generally fair licensing and IP-related market access conditions (with some exceptions)
- ✓ Although facing political hurdles to becoming a contracting party, has in many cases implemented provisions in key international IP treaties
- ✓ Relatively high level of transparency and public reporting by customs authorities of trade-related IP infringement

Key Areas of Weakness

- ✗ Major holes in digital copyright regime, notably with regard to foreign websites
- ✗ Relatively high rates of online piracy and physical counterfeiting
- ✗ Protection for unregistered well-known marks only partially provided
- ✗ Weak judicial enforcement of IP rights

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	0.75	20. Industrial design term of protection	0.48
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	0.75
4. Pharmaceutical-related enforcement	0.25	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	0.75	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.53	25. Physical counterfeiting rates	0.69
10. Exclusive rights	0.25	26. Software piracy rates	0.64
11. Cooperative action against online piracy	0.25	27. Civil and procedural remedies	0.5
12. Limitations and exceptions	0.5	28. Pre-established damages	0.25
13. Digital rights management	0.5	29. Criminal standards	0.25
14. Government use of licensed software	0	30. Effective border measures	0.5
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.75
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	0.75
18. Exclusive rights	0.5	33. Singapore Treaty on the Law of Trademarks	0.5
		34. Patent Law Treaty	0.5
		35. Post-TRIPS FTA	0
TOTAL: 20.59			

Spotlight on the National IP Environment

Past Editions versus Current Scores

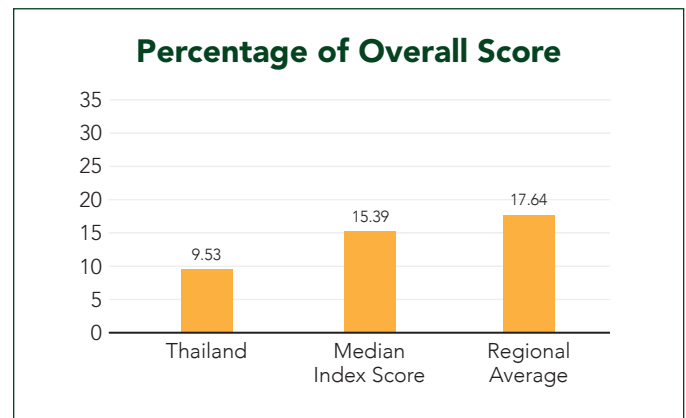
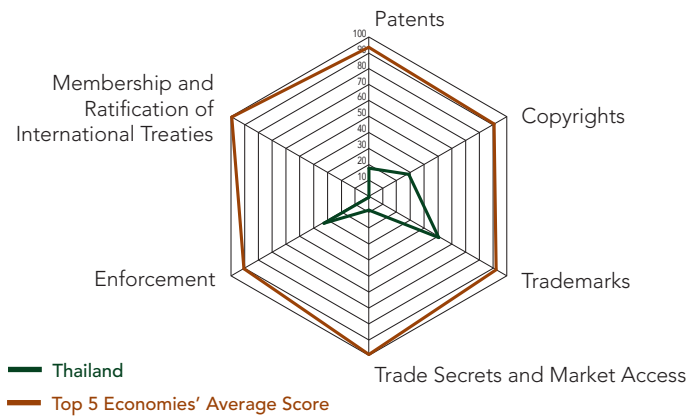
Taiwan's overall score has increased from 49% of the total possible score (with a score of 14.79 out of 30) in the fourth edition to 59% (20.59 out of 35) in the fifth edition. This increase reflects enhancements to the patent review system (indicator 2) and a fairly strong performance on many of the new indicators added in the fifth edition, including ability to commercialize IP assets and customs transparency. Taiwan's score also rose in the fifth edition due to a change in the system for scoring Taiwan on its membership in international treaties. Taking into consideration political hurdles to its becoming a contracting party to WIPO-administered treaties included in the Index, Taiwan is now scored based on implementation of core elements of those treaties, a number of which are present in its legislation.

Patents, Related Rights, and Limitations

- 2. Patentability requirements:** In the context of an accelerated examination program and PPHs with the U.S., Japan, and, since 2015, South Korea, average patent review time shrank to less than 24 months in late 2015/2016, from over 47 months in 2012. The average review time of applications filed under the above-mentioned PPHs was about 135 days in 2016 (as of the time of research). In addition, in 2016, Taiwan reviewed its main IP laws, reportedly ahead of a potential TPP accession. Proposed amendments to the Patent Act under review by the Legislative Yuan would further strengthen the already pro-technology patenting framework by extending the grace period for filing a patent to 12 months.
- 4. Pharmaceutical-related patent enforcement and resolution mechanism; and 7. Regulatory data protection (RDP) term:** Proposed amendments to the Patent Act and Pharmaceutical Affairs Act appear to address some of the main shortcomings of the current life sciences IP system. If adopted, they would introduce a patent enforcement mechanism based on the creation of a comprehensive patent list for new drugs. Generic applications would be required to include relevant patent information and notify patent holders in instances where they consider listed patents un-infringed or invalid, in order to streamline dispute proceedings. Under the amendments, the Taiwan Food and Drug Administration would stay generic market approval for 15 months after an infringement suit is filed. The amendments would also make 3 years of RDP available to drugs approved for a new indication.

Copyrights, Related Rights, and Limitations

- 10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking):** Although a comprehensive copyright reform is still under review by the government, amendments submitted to the Legislative Yuan in 2016 take some steps to extend the scope of copyright protection, for instance by criminalizing circumvention of TPMs, adding protection for encrypted program-carrying satellite and cable signals, and allowing for some crimes to be charged without a complaint. However, the amendments fall short of tackling other, fundamental gaps in the online copyright sphere and of fully aligning with international standards in areas such as camcording and foreign-hosted sites, among other elements.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic level of protection and registration system in place for copyrights, trademarks, and designs
- ✓ Partial attempts to adjust copyright legislation to new technological developments
- ✓ Elemental legal framework for enforcement of IP rights
- ✓ Some improvement in customs' anticounterfeiting actions

Key Areas of Weakness

- ✗ Inadequate patent protection, with holes in patentability and severe patent backlogs (although proposed reform seeks to address the delays)
- ✗ Life sciences IP rights inconsistent with TRIPS and history of compulsory licenses
- ✗ Incomplete digital copyright regime and hurdles to effective implementation of new website blocking system
- ✗ Barriers to market access for patent holders and red tape and additional costs for the commercialization of IP assets
- ✗ Very high physical counterfeiting and digital piracy rates
- ✗ Weak IP rights enforcement due to delays, lack of resources, and nondeterrent sentences

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.25	20. Industrial design term of protection	0.4
3. Patentability of CIIIs	0.25	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.53	25. Physical counterfeiting rates	0.29
10. Exclusive rights	0.25	26. Software piracy rates	0.31
11. Cooperative action against online piracy	0	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0.25	28. Pre-established damages	0
13. Digital rights management	0.25	29. Criminal standards	0.25
14. Government use of licensed software	0.5	30. Effective border measures	0.5
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.75
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.25	32. WIPO Internet Treaties	0
18. Exclusive rights	0.25	33. Singapore Treaty on the Law of Trademarks	0
TOTAL: 9.53			
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0

Spotlight on the National IP Environment

Past Editions versus Current Scores

Thailand's overall score has increased from 25% of the total possible score in the fourth edition (with a score of 7.40 out of 30) to 27% (9.53 out of 35) in the fifth edition. This result reflects some strengths in the new indicators added in the fifth edition, including indicator 31 on custom transparency, and an improvement in indicator 30 on border measures combating counterfeiting and physical piracy.

Patents, Related Rights, and Limitations

2. Patentability requirements; and 8. Patent opposition:

The Department of Intellectual Property (DIP) continues to face long backlogs, estimated at 38,500 for patents as of mid-2016. It takes on average 5 to 9 years for a patent to be granted, particularly for life sciences inventions and patents submitted through the PCT route. Against this backdrop, proposed patent amendments would replace the pre-grant opposition system with a time-limited post-grant system, and would shorten the time to request substantive examination from 5 to 3 years. A Board of Invalidation would be set up within DIP to manage post-grant opposition procedures. As an additional measure aimed at reducing the patent backlog, DIP also unveiled plans to triple the number of examiners, currently at only about 40. Nevertheless, the proposed amendments do not address key challenges about patentability criteria, notably in relation to life sciences patents.

Copyrights, Related Rights, and Limitations

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

In late 2015, the Thai Securities and Exchange Commission was reportedly the first ASEAN public body to implement software asset management practices. While positive, this remains an isolated example in a context of general high rates of unlicensed software.

Trademarks, Related Rights, and Limitations

16. Discrimination/restrictions on the use of brands in the packaging of different products:

The Tobacco Consumption and Control Act, currently under consideration by the Council of State, proposes removing all branding from cigarette packages, save the brand name in small print. In addition to impinging on trademark rights, the measures would make it harder to fight counterfeit tobacco goods, further aggravating an already serious problem in Thailand. The introduction of such a measure applied to any industry would significantly restrict the use of brands, trademarks,

and trade dress on retail packaging, undermining the benefits of trademarks to businesses and consumers alike, and setting a negative precedent for IP policy.

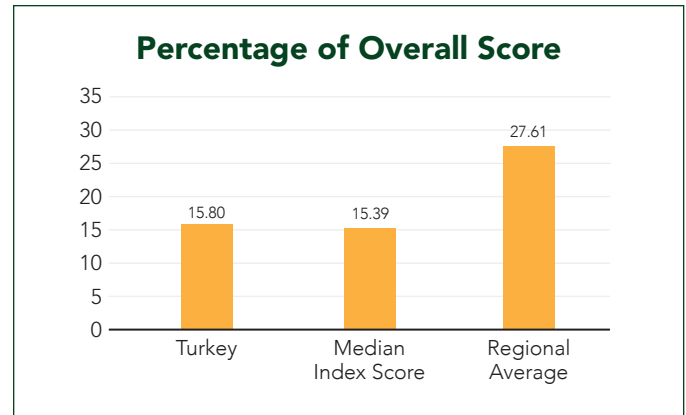
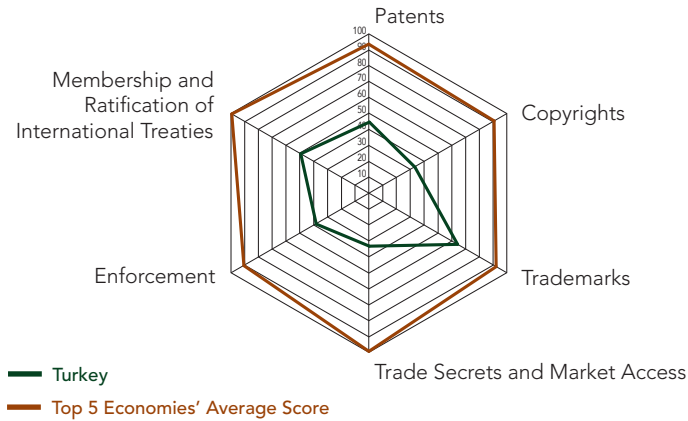
18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks:

In 2016, Thailand enacted amendments to the Trademark Act aimed at bringing its provisions in line with the Madrid Protocol, of which the country is seeking to become a member. The amendments clarify some procedural aspects and potentially shorten prosecution time by reducing the time period for responding to DIP actions and oppositions. In addition, they broaden the scope of protection by allowing multiple-class filing and registration of sound marks, as well as by extending the search of similar and identical trademarks to all classes (at present, it is limited to the one where the application was filed). Importantly, the amendments also criminalize refilling (that is, passing off unauthorized content as legitimate using original, branded packaging).

Enforcement

27. Civil and procedural remedies: In 2016, a new Specialized Appeals Court was established in Thailand in an effort to reduce the backlog and strengthen civil proceedings in lower courts. Nevertheless, other barriers to securing relief through the civil system remain unaddressed, such as the limited availability of damages, with the result that civil cases are rarely pursued by IP rights holders.

30. Effective border measures: A potential loophole exists in relation to in-transit actions introduced in custom legislation in 2015 that could limit the inclusion of IP within the remit of illegal goods because the transshipment of infringing goods is not expressly prohibited in IP law (only importation is). However, positively, available preliminary evidence suggests that customs officials are interpreting the new provision to include counterfeit goods. On this basis, Thailand's score for this indicator increased by 0.25.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Incrementally greater alignment of IP legal framework for major IP rights with EU standards, including via proposed IP amendments
- ✓ Basic general remedies and penalties for IP infringement available in legislation
- ✓ Relatively few barriers in existing technology transfer and licensing framework, although barriers exist in practice

Key Areas of Weakness

- ✗ Weak protection and enforcement of life sciences patents
- ✗ Opaque online copyright environment and overly broad copyright exceptions
- ✗ High counterfeiting and online piracy rates
- ✗ Major gaps in practical judicial recourse and border control

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	1
3. Patentability of CIs	0.5	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0.25
7. Regulatory data protection term	0.6	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.74	25. Physical counterfeiting rates	0.29
10. Exclusive rights	0.25	26. Software piracy rates	0.42
11. Cooperative action against online piracy	0	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0.25	28. Pre-established damages	0.25
13. Digital rights management	0.25	29. Criminal standards	0.25
14. Government use of licensed software	0.5	30. Effective border measures	0.5
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0.75
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	1
18. Exclusive rights	0.25	33. Singapore Treaty on the Law of Trademarks	0.5
		34. Patent Law Treaty	0.5
		35. Post-TRIPS FTA	0
TOTAL: 15.80			

Spotlight on the National IP Environment

Past Editions versus Current Scores

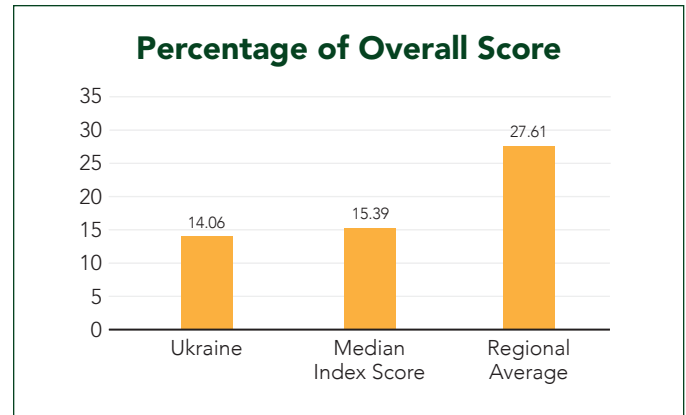
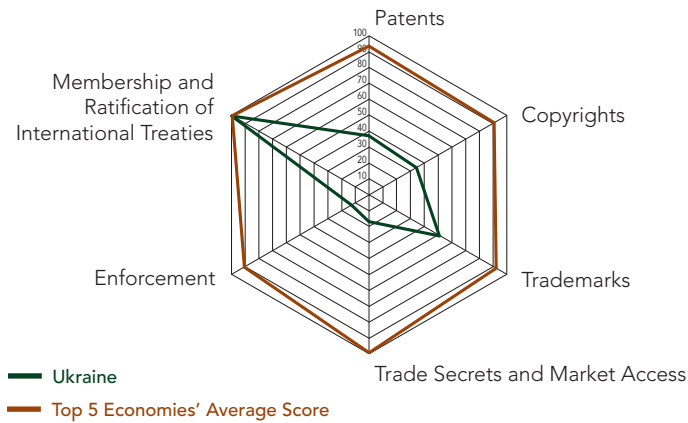
Turkey's overall score has increased from 40% of the total possible score (with a score of 11.87 out of 30) in the fourth edition of the Index to 45% (15.80 out of 35) in the fifth edition. This increase in score is mainly a result of a relatively strong performance on some of the new indicators added in the fifth edition, including in relation to the term of industrial design protection and customs reporting on trade-related IP infringement.

Patents, Related Rights, and Limitations

- 2. Patentability requirements:** In 2016, draft legislation that consolidates all IP Decree-Laws into a unified IP Code was under consideration in the Turkish Parliament. Overall, the text seeks to clarify certain elements (such as the defendant bearing the burden of proof in patent proceedings) and to harmonize the IP legal framework to international standards, such as the European Patent Convention (EPC) provisions. However, important divergences from EU standards remain with regard to life sciences inventions, including inadequate clarity on the ability to patent second medical uses and biotechnologies, that result in a narrow interpretation by some IP Courts. In 2016, the Istanbul IP Court refused to follow a landmark decision by the Court of Appeal upholding the patentability of second use patents.
- 8. Patent opposition:** The draft IP amendments also seek to align with the EU by introducing a post-grant opposition system, replacing the current pre-grant system, but the new system does not fully close loopholes and hurdles in the existing patent adjudication system, leading to remaining uncertainty for patent holders. Under Decree 551, patents can be invalidated by courts, a setting where patent holders have little recourse and no way to amend patent applications, even when opposition proceedings are ongoing at the EPO. Consequently, a high number of patent invalidations or partial invalidations in Turkey may conflict with EPO decisions. The draft IP Code does not fully address the inability to amend claims after grant within the new post-grant opposition system, and may thus be inadequate to curb the rate of invalidations. The timelines are tight for amending a claim within the scope of an opposition (six months, compared to nine months before the EPO). In addition, national invalidation proceedings will not necessarily be stayed if an ongoing opposition is taking place at the EU level (thus limiting the ability to amend claims on European patents).

Trademarks, Related Rights, and Limitations

- 16. Discrimination/restrictions on the use of brands in the packaging of different products:** In 2012, the Turkish Parliament approved amendments to the Law on the Prevention and Control of Hazards of Tobacco Products (Law 4207), which banned the use of brands, signs, and other promotional elements on packages and labels on tobacco products. Implementing regulations under the National Tobacco Control Program Action Plan 2015–18, which, among other elements, would have introduced “black packaging” (black cigarette boxes without brands or logos), were considered in 2016. However, prior to approval, the plain packaging measures were removed from the draft regulation, reportedly on the basis that the measures would conflict with trade laws. As a result, Turkey's score increases to 1 for this indicator in the fifth edition of the Index. Nevertheless, given that new Health Minister Akdag has indicated he may reconsider the introduction of plain packaging regulations, developments in this area may affect Turkey's score for indicator 16 in future editions of the Index.
- 18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks:** The draft IP Code would address some of the legislative gray areas in trademark protection and increase guarantees that confusingly similar trademarks will not be registered, for instance by explicitly protecting unregistered well-known marks and providing legal ground for nonuse defense in trademark opposition. It will also extend the scope of infringement to include acts such as possessing or warehousing counterfeits. However, the reform only partially tackles the main concerns of rights holders with regard to inconsistent and weak judicial enforcement, including difficulty obtaining warrants, varying standards for evidence collection, inconsistent remedies, and rare application of criminal charges.
- 20. Industrial design term of protection; and 21. Legal measures available that provide necessary exclusive rights to redress the unauthorized use of industrial design rights:** Turkish law currently includes a 25-year total term of design protection, in line with the EU. However, Turkey is not aligned with the EU in other areas, such as in relation to the protection of unregistered designs. The ongoing IP revamp would better align design provisions to the EU framework by granting a 3-year term of protection specifically for unregistered designs. In addition, the reform redresses a current legal gap and reimposes criminal liability on design infringers.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Efforts to align IP legislation to EU standards and implement Deep and Comprehensive Free Trade Agreement (DCFTA)
- ✓ Some improvement in enforcement of life sciences patents by courts, although key gaps exist
- ✓ Emphasis on strengthening online copyright environment in the area of cooperative action against online piracy and the appropriate balance of exceptions to copyright
- ✓ Contracting party to certain key international IP treaties

Key Areas of Weakness

- ✗ Rudimentary framework for trademarks and design protection does not provide guarantees against unfair use (with exceptions)
- ✗ Among the highest rates of counterfeiting and piracy worldwide; currently relatively little effort to combat
- ✗ Generally poor environment for IP enforcement online (lengthy, nondeterrent proceedings)
- ✗ Gaps in customs activities, notably lack of effective procedures for destruction of counterfeits

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	0	20. Industrial design term of protection	0.6
3. Patentability of CILs	0	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0.25	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	0.25
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	0.25
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.2
9. Term of protection	0.58	26. Software piracy rates	0.18
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0.25	28. Pre-established damages	0
12. Limitations and exceptions	0.5	29. Criminal standards	0.25
13. Digital rights management	0.25	30. Effective border measures	0
14. Government use of licensed software	0.25	31. Transparency and public reporting by customs	0
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	1
17. Protection of well-known marks	0.5	34. Patent Law Treaty	1
18. Exclusive rights	0.25	35. Post-TRIPS FTA	1
TOTAL: 14.06			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Ukraine's overall score has increased slightly from 39% of the total possible score in the fourth edition (with a score of 11.55 out of 30) to 40% (14.06 out of 35) in the fifth edition. This increase in score reflects small but positive improvements in certain areas, including life sciences patent enforcement, cooperative action against online piracy, fair and balanced exceptions to copyright, and protection of well-known marks.

General Note

Ukraine adopted proposals for revamping the current IP administrative structure and introducing a more independent and better-staffed National Agency for IP to replace the State IP Service. If implemented, the reform would also involve a reorganization of the collective administration system, aimed at replacing the current 19 collective management organizations with a single agency, improving transparency and helping to bring the system in line with EU standards.

Copyrights, Related Rights, and Limitations

11. Availability of frameworks that promote cooperative action against online piracy; and 12. Scope of limitations and exceptions to copyrights and related rights:

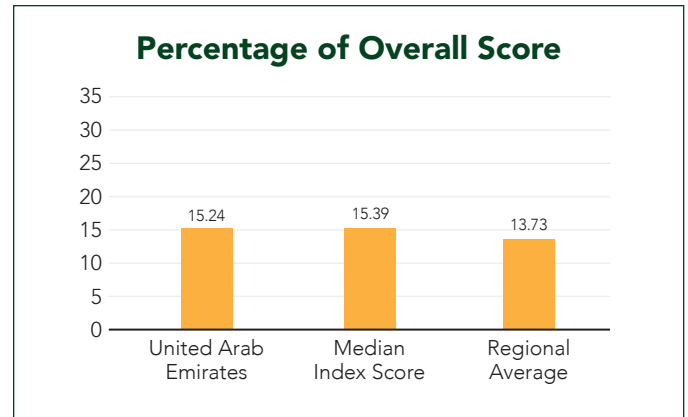
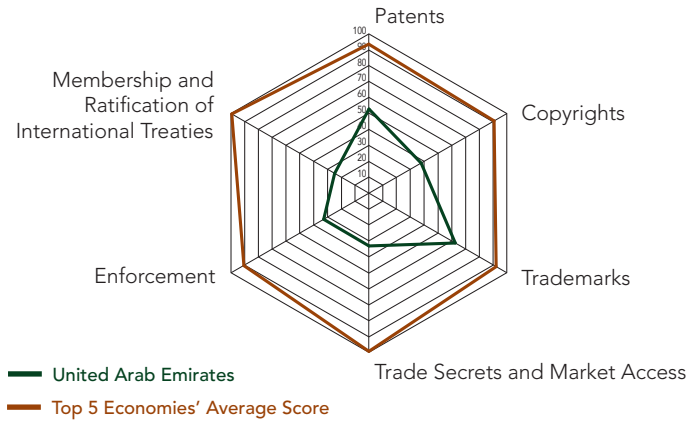
Copyright amendments were adopted in 2016 within the Law on State Support for Cinematography, Bill 3081d (although at the time of research, the bill had not yet been signed into law). The bill notably introduces a notice and takedown system whereby a rights holder may send a notice of infringing content to an ISP, which has 48 hours to block the content. However, the provisions entail a very in-depth process requiring complex documentation along with rules that may render the system difficult to use effectively. The bill also introduces a liability clause safeguarding ISPs that take down the designated content within 48 hours of receipt. In addition, the bill partially closes loopholes regarding camcording and Internet piracy by adding them to the list of infringements identified in the Copyright Act. The bill also amends the Criminal Code to criminalize the act of camcording.

shortcomings of judicial and customs measures remain on hold. The draft law "On Amendments to Certain Legislative Acts of Ukraine Concerning the Strengthening of the Protection of IP Rights," developed by the Ministry of Economic Development, would raise fines for criminal IP infringement from USD17,000 to USD255,000, and double them to a maximum of UAH6800 (USD260) for administrative offenses. The bill, along with other draft measures, could also provide judicial authorities with greater authority over the confiscation and destruction of infringing goods and the tools used for their production. Apart from legislation, in 2016, the recently created Cyber Police Department in a joint operation with U.S. and UK enforcement shut down the second most popular torrent website worldwide, which was run in Ukraine. In addition, the department took down one of the country's major pirate movie websites. Also in 2016, the National Police signed a Memorandum of Understanding with the media community launching a joint antipiracy initiative based on technical assistance and information exchange.

Enforcement

27. Civil and procedural remedies; and 29. Criminal standards including minimum imprisonment and minimum fines:

In 2016, Ukraine's Parliament adopted legislation establishing IP first instance courts by 2017, a development that could help raise IP expertise among the judiciary, streamline proceedings, and improve transparency and accountability. This reform of the judicial system will also bring about a separate judgment execution process with private enforcement officials, which might also enhance opportunities for securing judgments. However, other draft bills that would tackle some of the major remaining



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic IP protections in place, including sector-specific rights, although key gaps exist
- ✓ Relatively strong framework for enforcement of IP rights, particularly criminal prosecution
- ✓ Increasing administrative and judicial capacity for IP enforcement
- ✓ Enhanced anticounterfeiting efforts, including police and customs seizures and public-private engagement on e-commerce threats

Key Areas of Weakness

- ✗ Important loopholes in protection for life sciences patents, notably in relation to RDP and patent term restoration
- ✗ Copyright regime fails to address growing piracy levels
- ✗ Partial protection under the current trademark and design framework, but in need of updating
- ✗ Gaps in customs measures and judicial enforcement, notably civil remedies

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.25
2. Patentability requirements	0.5	20. Industrial design term of protection	0.4
3. Patentability of CILs	0.5	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	1	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.53	25. Physical counterfeiting rates	0.4
10. Exclusive rights	0.5	26. Software piracy rates	0.66
11. Cooperative action against online piracy	0	27. Civil and procedural remedies	0.5
12. Limitations and exceptions	0.5	28. Pre-established damages	0
13. Digital rights management	0.5	29. Criminal standards	0.5
14. Government use of licensed software	0.25	30. Effective border measures	0.25
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.5	32. WIPO Internet Treaties	1
18. Exclusive rights	0.75	33. Singapore Treaty on the Law of Trademarks	0
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0
TOTAL: 15.24			

Spotlight on the National IP Environment

Past Editions versus Current Scores

The UAE's overall score has increased from 41% of the total possible score (with a score of 12.43 out of 30) in the fourth edition to 44% (15.24 out of 35) in the fifth edition. This increase in score mainly results from some improvements to DRM legislation and the protection of well-known marks, as well as moderate performance on some of the new indicators added in the fifth edition of the Index.

Patents, Related Rights, and Limitations

- 2. Patentability requirements:** Following the introduction of online trademark registration in 2015, in 2016, the Ministry of Economy, with support from the Korean IP Office, launched a trial digital system for processing patents and designs and discussed the creation of a dedicated Patent Examination Center. The new application process is expected to shorten delays for examination, which currently takes five years on average.
- 3. Patentability of computer-implemented inventions (CIIs):** Patenting of CIIs may be pursued today in the UAE as long as such inventions are linked to a hardware and drafted as a technical solution to a technical problem, provided that the other criteria for patentability are satisfied. Enhancing the development of ICTs is a significant focus across several pillars of a recent government initiative to promote innovation and competitiveness in science and technology. This initiative includes a dedicated focus on enabling the patenting and commercialization of IP assets, including in relation to computer-implemented technologies, through, for instance, a new fund of over USD500 million (Dh2 billion). According to international patenting statistics, today a relatively large number (about 7%) of patent applications in the UAE are in computer technology.

Copyrights, Related Rights, and Limitations

- 13. Digital rights management (DRM) legislation:** Federal Law 12/2016 increased penalties in one area of TPM protection: use of fraudulent computer network protocol addresses (including virtual private networks, or VPNs) to bypass copyright protection; for instance, by accessing content broadcasted abroad and not licensed for the UAE. Penalties now include imprisonment and fines of AED500,000–2,000,000 (about USD135,000–545,000), up from AED150,000–500,000.

Trademarks, Related Rights, and Limitations

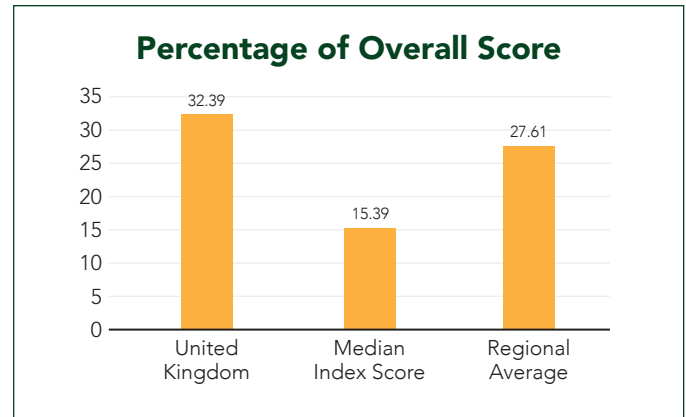
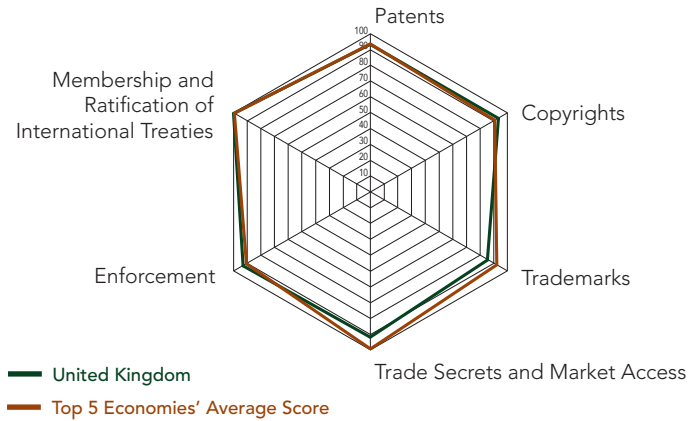
- 17. Ability of trademark owners to protect their trademarks: requisites for protection:** In the context of limited case law and lack of clarity in legislation, a precedent-setting decision by the Federal Supreme Court upheld well-known mark protection, including for unregistered marks, and provided greater clarity on requirements for establishing notoriety. In a blatant bad faith case, in which an individual attempted to register a well-known restaurant trademark, the court defined famous brands as those used and registered in at least three other countries. It also established that prior use should be demonstrated through actual commercial activity such as marketing and distribution in the UAE, and that bad faith can be a basis of action (despite not being in law) in clear cases of an illegitimate mark.

Trade Secrets and Market Access

- 23. Barriers to market access; and 24. Regulatory and administrative barriers to the commercialization of IP assets:** A draft investment law currently under consideration would remove the 49% foreign equity cap in certain sectors where further investment and technology are needed. At present, barriers to foreign ownership and licensing hinder efforts to move toward a more knowledge-intensive economy. For instance, individual licensing authorities exist for each of the over 30 free zones, which can adopt their own competition rules, and regulations lack an effective framework for collecting royalties and licensing fees as well as (specifically for the music sector) a collection society for copyright holders.

Enforcement

- 27. Civil and procedural remedies:** Ministerial Resolution 137/2016 created a specialized judicial department, intended not as a full-fledged court but as a group of specialized judges, within the UAE Federal Court system to handle IP disputes. Specialized judges will deal with federal issues, such as cancellation acts, but infringement and other IP actions will remain within the remit of emirate-level courts. The first dedicated IPR Court Circuit was set up in 2016 at the Abu Dhabi Court of First Instance. The increased specialization is expected to speed up the handling of litigation before the courts and could increase the availability of effective civil remedies such as injunctions, which are currently rarely secured.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Strong and sophisticated national IP environment
- ✓ 2016 saw a dedicated push by UK government to step up the fight against online piracy
- ✓ Overall strong cross-sectoral enforcement environment highlighted by the work of a specialist crime unit and cross-industry and government cooperation
- ✓ IP environment supported by wide-ranging educational and pro-innovation activities and policies

Key Areas of Weakness

- ✗ Plain packaging regulations published and introduced

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	1
2. Patentability requirements	1	20. Industrial design term of protection	1
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	1
4. Pharmaceutical-related enforcement	0.5	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	1	24. Regulatory and administrative barriers to commercialization	0.75
8. Patent opposition	1	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.73
9. Term of protection	0.63	26. Software piracy rates	0.78
10. Exclusive rights	1	27. Civil and procedural remedies	1
11. Cooperative action against online piracy	1	28. Pre-established damages	1
12. Limitations and exceptions	1	29. Criminal standards	1
13. Digital rights management	1	30. Effective border measures	1
14. Government use of licensed software	1	31. Transparency and public reporting by customs	1
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	1
16. Limitations on use of brands	0	33. Singapore Treaty on the Law of Trademarks	1
17. Protection of well-known marks	1	34. Patent Law Treaty	1
18. Exclusive rights	1	35. Post-TRIPS FTA	1
TOTAL: 32.39			

Spotlight on the National IP Environment

Past Editions versus Current Scores

The UK's overall score has increased from 91.8% (27.53 out of 30) in the fourth edition to 92.5% (32.39 out of 35) in the fifth edition. This increase in score reflects a strong performance on the 5 new indicators added to the fifth edition.

General Comments

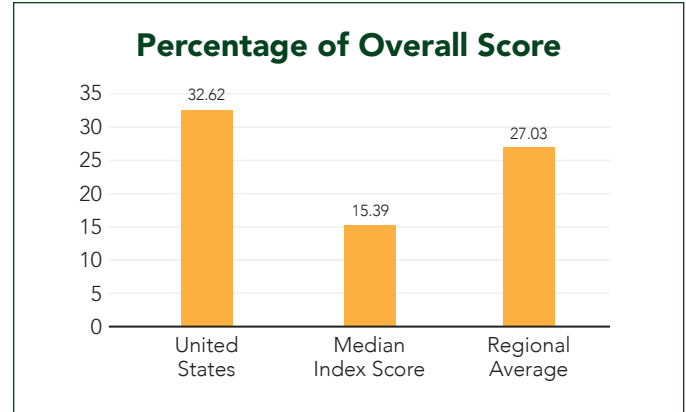
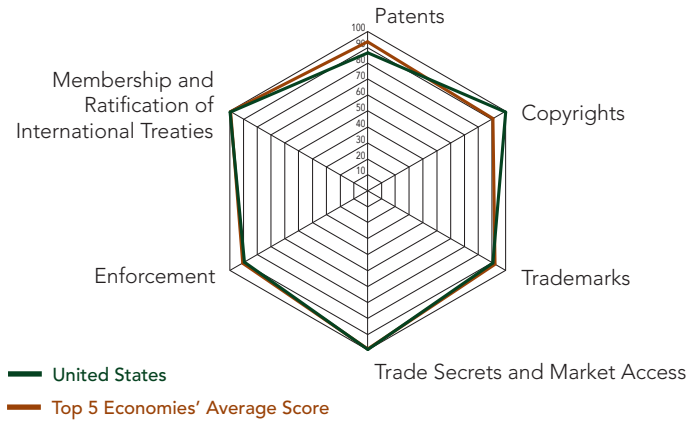
Despite the uncertainty raised by the results of the June 2016 referendum to leave the EU, the UK remains one of the highest-rated economies in the Index with a strong national IP environment and particular strengths in the enforcement category. At the time of research, the UK government had not triggered Article 50 of the Lisbon Treaty that will launch negotiations on a withdrawal agreement. EU treaties will cease to apply to the UK two years after notification of Article 50, expected to happen in early 2017. While it is not expected that this will affect the level of protection granted under the current British IP system, there is currently not a great deal of detail regarding the administration and legal frameworks that will replace current EU-level regulations in the UK. The unfolding of this process over the upcoming years will be closely monitored and tracked in the Index. The UK government did confirm in November 2016 that the UK would ratify the agreement on the Unified Patent Court. This is an important step in the effective enforcement of patent rights within contracting states.

Copyrights, Related Rights, and Limitations

10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking): In May 2016, the British government unveiled plans to step up IP enforcement efforts in its five-year strategic policy paper *IP Enforcement 2020*. Specifically, the document targets the reduction of online piracy as a top priority up to 2020. The current system requires rights holders to monitor P2P networks, capture evidence, and send it through to their ISP, which will then send an "alert to the subscriber" via IP address tracking. According to the document, the government is reviewing this system to improve and streamline the process and is considering the scope for an additional mechanism of notice and trackdown that would enable rights holders to take action directly against the identified infringers. While the exact scope of the initiative has not been further detailed, the stated overall objective is to enhance protection for rights holders. The strategy also promises to introduce a code of practice for intermediaries and to tackle unauthorized streaming from set-top boxes, an issue whose legal status is currently blurred in most EU countries. Illustrating the already significant progress that has been made against online piracy, the Intellectual Property Office's (IPO's) study "Online Copyright

Infringement Trackers," published in June 2016, registered the lowest rate of illegal access since the study started in 2011, with 15% of Internet users illegally accessing illegal material. Furthermore, as reported in the annual *IP Crime Report* (also published by the IPO), more than 100 million URLs were submitted to ISPs for removal of links to infringing content between January 2015 and March 2016. Moreover, during a similar time period, the City of London's Police Intellectual Property Crime Unit took down 11,000 sites offering counterfeits. The unit has also expanded its enforcement activities and implemented a "follow the money" approach by launching the Infringing Website List that advertisers, agencies, and other intermediaries can check before deciding where to place their ads. The aim is to reduce advert placement on illegal websites in order to disrupt and diminish their advertising revenue. Against this background of existing strong enforcement activity, the Digital Economy Bill introduced in Parliament in July 2016 proposed to increase the maximum sentences for online copyright infringement from 2 to 10 years, to bring remedies on par with those applying to physical counterfeiting. These initiatives together underline the seriousness with which UK policymakers are treating the piracy phenomenon and the positive steps they are taking in trying to tackle it.

12. Scope of limitations and exceptions to copyrights and related rights: In November 2015, the UK government announced it would scrap the private copy exception that was introduced in 2014 and renounced to table new proposals to legalize private copying. The announcement followed a decision by the Court of Justice of the European Union in the case of *Hewlett Packard Belgium SPRL v. Reprobel SCRL*, in which the court offered guidance on how national private copying laws should be drafted. It also comes after the London High Court declared the 2014 scheme unlawful for lacking adequate evidential basis that the exception would cause only minimal harm to rights holders, as claimed by the government. In 2016, the ECJ continued to provide guidelines on implementation by member states of the "fair compensation" concept to copyright holders foreseen by the InfoSoc Directive, notably by establishing that it cannot be funded by a general state budget (*EGEDA* case). In separate news, the draft Digital Economy Bill would repeal an outdated copyright provision on cable television (section 73 of the Copyright, Patent and Design Act), closing the loophole that providers of Internet-based live streaming services used to profit from retransmitting public service broadcast content over the Internet.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Key IP rights, including sector-specific rights, in place
- ✓ Largely supportive technology transfer and licensing environment
- ✓ Generally deterrent civil and criminal remedies
- ✓ Commitment to and implementation of international treaties

Key Areas of Weakness

- ✗ Patent opposition system adds substantial costs and uncertainty
- ✗ Somewhat narrow interpretation of patentability of biotech and computer-related inventions compared with international standards
- ✗ Inconsistent enforcement against counterfeit and pirated goods, especially goods sold online

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.75
2. Patentability requirements	0.75	20. Industrial design term of protection	0.6
3. Patentability of CILs	1	21. Exclusive rights, industrial design rights	1
4. Pharmaceutical-related enforcement	1	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	1	22. Protection of trade secrets	1
6. Pharmaceutical patent term restoration	1	23. Non-barriers to market access	1
7. Regulatory data protection term	0.75	24. Regulatory and administrative barriers to commercialization	1
8. Patent opposition	0.5	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	1	25. Physical counterfeiting rates	0.69
10. Exclusive rights	1	26. Software piracy rates	0.83
11. Cooperative action against online piracy	1	27. Civil and procedural remedies	1
12. Limitations and exceptions	1	28. Pre-established damages	1
13. Digital rights management	1	29. Criminal standards	1
14. Government use of licensed software	1	30. Effective border measures	0.75
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	1
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	1	32. WIPO Internet Treaties	1
18. Exclusive rights	1	33. Singapore Treaty on the Law of Trademarks	1
		34. Patent Law Treaty	1
		35. Post-TRIPS FTA	1
TOTAL: 32.62			

Spotlight on the National IP Environment

Past Editions versus Current Scores

The United States' overall score has dropped slightly from 95% (with a score of 28.61 out of 30) to 93% (with a score of 32.62 out of 35). This decrease in score is mainly due to challenges, additional cost, and uncertainty in the patent opposition system in place since 2011, compared with other post-grant opposition systems (discussed below in relation to the new indicator on patent opposition).

Patents, Related Rights, and Limitations

2. Patentability requirements: In 2016, as part of its ongoing effort to develop guidance on recent key Supreme Court decisions in *Myriad*, *Mayo*, and *Alice*, the USPTO issued new guidelines on eligibility for patentable subject matter for naturally occurring substances. Although greater clarity is still needed, the guidance thus far appears to indicate that certain biologic claims and diagnostic methods are patentable, particularly where they involve something "significantly more" than an underlying "law of nature." A number of court cases in 2016 appear to mirror this approach. In *Rapid Litigation Management Ltd. v. Cellzdirect Inc.*, a Federal Circuit decision reversed an earlier decision limiting patentability of diagnostic claims, finding that biologic processes and diagnostic claims applying laws of nature (beyond merely observing or identifying such laws) and leading to a "new and useful" result are patentable. In *Vanda Pharmaceuticals Inc. v. Roxane Labs, Inc.*, claims on a personalized medicine method were upheld on the basis that both diagnostic and treatment methods included an additional step that went beyond merely depending on the laws of nature. Nevertheless, the patenting environment in the U.S. continues to be affected by uncertainty as to how to interpret *Myriad* and other key decisions, and greater clarity, consistency, and closing of gaps with international best practices is crucial to upholding a supportive innovation environment.

3. Patentability of computer-implemented inventions (CIIs): The USPTO has also issued updated guidance on software patenting in relation to a number of court decisions in 2016 (such as *McRO v. Bandai Namco*, *BASCOM v. AT&T Mobility*, and *Amdocs v. Openet Telecom*) that suggests that software patents that otherwise meet patentability criteria may be considered patent-eligible and clarifies that claims directed to software are not automatically considered to be patent-ineligible abstract subject matter.

8. Patent opposition: The U.S. provides for various types of post-grant opposition proceedings, including 2 introduced as part of the 2011 America Invents Act (AIA) in an effort to provide a more cost-effective, efficient alternative to judicial proceedings for challenging bad faith actors. The first is the post-grant review, available during a 9-month period following the grant of a patent, a mechanism that shares many similarities to the opposition regime available at the

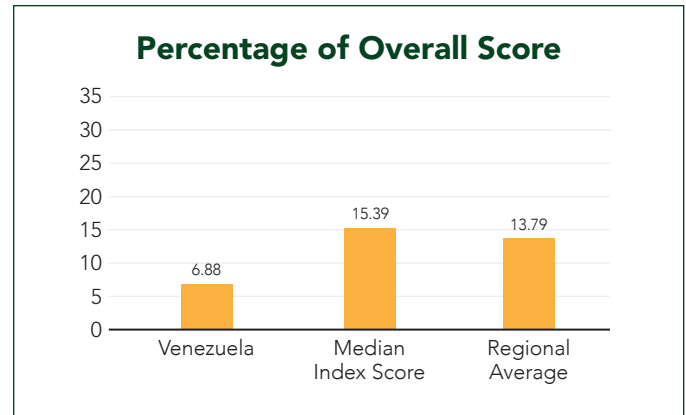
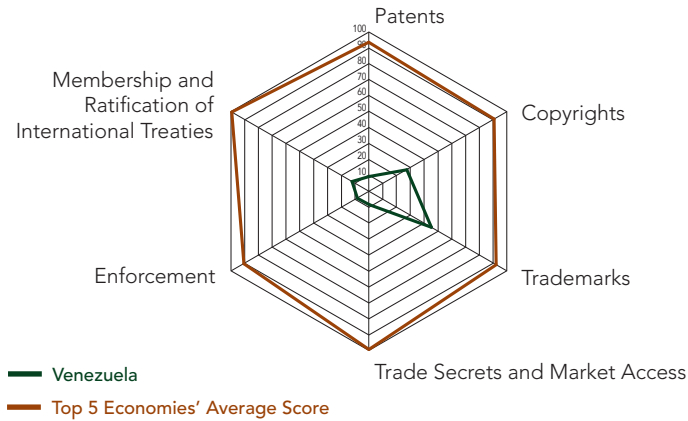
EPO. The second and most commonly used mechanism since the AIA is the *inter partes* review, available after the above window for a post-grant review; requests that are accepted for an IPR review must be issued within 18 months. Both proceedings occur before a specialized Patent Trial and Appeals Board (PTAB) within the USPTO and composed of administrative patent judges. Despite the intention of the new opposition mechanisms, the ease of challenging patents during the post-grant period, particularly via *inter partes* review, has led to a high rate of trials (particularly for life sciences claims) and of rejections (between 40% and 65% depending on the type of technology), with challenges considered by some experts to be disproportionately funded by bad faith actors. In addition, evidence suggests that there is a reduced opportunity to amend claims in opposition proceedings, with USPTO data indicating that only about 5% of requests to amend claims are granted by PTAB, and a lower burden of proof for opposing parties than in district court proceedings. Also, the rate of appeals to PTAB decisions is beginning to rise, with backlogs noticeable. As such, the opposition system in the U.S. still represents a potential channel for bad faith actors and can involve a great deal of cost and uncertainty for patent owners compared to other post-grant opposition systems.

Trade Secrets and Market Access

22. Protection of trade secrets: The Defend Trade Secrets Act was signed into law in 2016. The new law introduces a federal right of action against the misappropriation of trade secrets (on top of existing state-level rights of action). Available remedies include damages for actual losses, with higher damages for willful infringement, injunctive relief, and seizures (in extreme situations). Relief is also provided for threatened misappropriation if clear evidence of a threat exists. The new framework aids in enhancing the protection of trade secrets across the U.S.

Enforcement

30. Effective border measures: In 2016, the Trade Facilitation and Trade Enforcement Act was signed into law. Among other elements, the new measure aims to close existing gaps in the fight against trade in counterfeit goods. The law includes requirements for customs authorities to disclose information to rights holders based on suspected infringing goods and earlier in the process than previously existed in law. These requirements are intended to shore up the ability to identify and speedily address potential counterfeits. The measure also formally establishes the new National IPR Coordination Center, with authority to coordinate investigations with other agencies, improve communication with rights holders, and support criminal prosecution. Depending on the application of the law in practice, the U.S.'s score may rise for this indicator in future editions of the Index.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic copyright, trademark, and industrial design frameworks in place
- ✓ Dedicated (although limited) anticounterfeiting effort
- ✓ Signatory to some key IP-related international treaties, such as the WIPO Internet Treaties

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, with limited recognition of well-known marks
- ✗ Enforcement generally poor; penalties either insufficient or draconian; administrative inaction
- ✗ Pervasive government interference and regulatory barriers to commercialization of IP assets curb technology transfer

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	0.5	19. Frameworks against online sale of counterfeit goods	0
2. Patentability requirements	0	20. Industrial design term of protection	0.4
3. Patentability of CILs	0.25	21. Exclusive rights, industrial design rights	0.25
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.25
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0
7. Regulatory data protection term	0	24. Regulatory and administrative barriers to commercialization	0
8. Patent opposition	0	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations			
9. Term of protection	0.63	25. Physical counterfeiting rates	0.23
10. Exclusive rights	0.25	26. Software piracy rates	0.12
11. Cooperative action against online piracy	0.25	27. Civil and procedural remedies	0.25
12. Limitations and exceptions	0.25	28. Pre-established damages	0
13. Digital rights management	0	29. Criminal standards	0
14. Government use of licensed software	0.25	30. Effective border measures	0
Category 3: Trademarks, Related Rights, and Limitations			
15. Term of protection	1	31. Transparency and public reporting by customs	0
16. Limitations on use of brands	1	Category 6: Membership and Ratification of International Treaties	
17. Protection of well-known marks	0.25	32. WIPO Internet Treaties	0.5
18. Exclusive rights	0.25	33. Singapore Treaty on the Law of Trademarks	0
		34. Patent Law Treaty	0
		35. Post-TRIPS FTA	0
TOTAL: 6.88			

Spotlight on the National IP Environment

Patents, Related Rights, and Limitations

Venezuela's overall score has decreased slightly from 21% of the total possible score (with a score of 6.42 out of 30) in the fourth edition of the Index to 20% (6.88 out of 35) in the fifth edition. With some exceptions, little improvements were registered in 2016 amid persisting legal uncertainties and limited protection of IP rights, widespread counterfeiting and piracy, and inadequate enforcement.

Trademarks, Related Rights, and Limitations

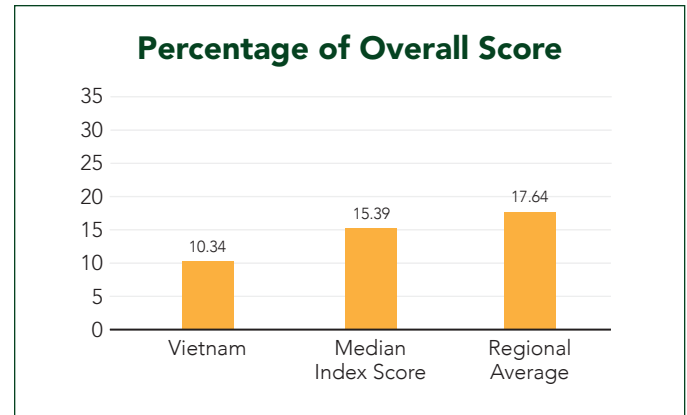
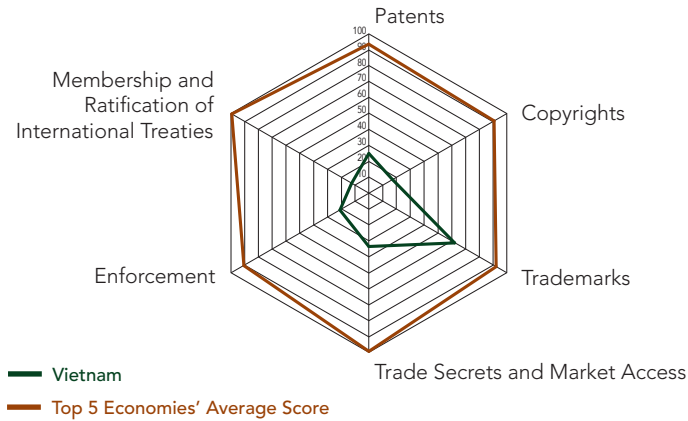
21. Legal measures available that provide necessary exclusive rights to redress the unauthorized use of industrial design rights: In 2016, registration of designs resumed, after 10 years of inactivity from the Venezuelan Trademarks and Patents Office in the granting of design protection (and patents). Resolution No. 087 of 2016 granted registration of 32 industrial designs filed between 1999 and 2003.

Trade Secrets and Market Access

24. Regulatory and administrative barriers to the commercialization of IP assets: Regulatory barriers to the commercialization of IP assets considerably curtail technology transfer and licensing by national researchers and public employees. In particular, the 2014 reform to the Organic Law for Science, Technology and Innovation obliges national researchers to disclose research information on request by government authorities, disregarding its confidential and strategic role for future IP protection. The law also permits the government to maintain co-ownership of IP issued from public research. In addition, the Organic Labor Law *de facto* expropriates IP rights from public employees by declaring that IP generated by public sector entities, or using public sector funds, automatically becomes part of the public domain. Among other elements, the law on investment from 2014 (Decree 1438) confirms preexisting barriers to repatriate dividends and pay royalties resulting from patent and trademark license agreements. For the licensor to be able to collect such royalties, licenses must be registered with the National Center for Foreign Trade.

Enforcement

29. Criminal standards including minimum imprisonment and minimum fines: Lacking a dedicated IP police force, low-profile IP raids are occasionally carried out by the customs authority (SENIAT). The Venezuelan National Police has, however, recently participated in an Interpol operation against criminal organizations involved in counterfeiting goods, alongside 10 other Latin American countries. As a result of the operation, about 800 people were charged or arrested and 800,000 items were seized in the 11 countries.



Strengths and Weaknesses

Key Areas of Strength

- ✓ Basic IP framework in place, particularly for trademark protection
- ✓ Some improvement in protection of domain names and against confusingly similar marks for dissimilar goods
- ✓ Elemental framework for IP rights enforcement, with *ex officio* customs authority
- ✓ Greater recognition of, and international cooperation on, IP (for instance, local campaign Program 168 and EVFTA and the TPP); if implemented, IP framework may be considerably strengthened

Key Areas of Weakness

- ✗ Inadequate protection of life sciences patents, with challenging enforcement environment
- ✗ Gaps in copyright protection, including lack of measures to address online infringements
- ✗ Very high physical counterfeiting rates and rampant online infringement
- ✗ Enforcement generally poor; penalties insufficient, administrative inaction

INDICATOR	SCORE	INDICATOR	SCORE
Category 1: Patents, Related Rights, and Limitations			
1. Term of protection	1	19. Frameworks against online sale of counterfeit goods	0.5
2. Patentability requirements	0.25	20. Industrial design term of protection	0.6
3. Patentability of CIIIs	0	21. Exclusive rights, industrial design rights	0.5
4. Pharmaceutical-related enforcement	0	Category 4: Trade Secrets and Market Access	
5. Legislative criteria and active use of compulsory licensing	0	22. Protection of trade secrets	0.5
6. Pharmaceutical patent term restoration	0	23. Non-barriers to market access	0
7. Regulatory data protection term	0.5	24. Regulatory and administrative barriers to commercialization	0.5
8. Patent opposition	0.25	Category 5: Enforcement	
Category 2: Copyrights, Related Rights, and Limitations		25. Physical counterfeiting rates	0.24
9. Term of protection	0.53	26. Software piracy rates	0.22
10. Exclusive rights	0.25	27. Civil and procedural remedies	0.25
11. Cooperative action against online piracy	0	28. Pre-established damages	0.25
12. Limitations and exceptions	0	29. Criminal standards	0.25
13. Digital rights management	0.25	30. Effective border measures	0.25
14. Government use of licensed software	0	31. Transparency and public reporting by customs	0
Category 3: Trademarks, Related Rights, and Limitations		Category 6: Membership and Ratification of International Treaties	
15. Term of protection	1	32. WIPO Internet Treaties	0
16. Limitations on use of brands	1	33. Singapore Treaty on the Law of Trademarks	0
17. Protection of well-known marks	0.25	34. Patent Law Treaty	0
18. Exclusive rights	0.5	35. Post-TRIPS FTA	0.5
TOTAL: 10.34			

Spotlight on the National IP Environment

Past Editions versus Current Scores

Vietnam's overall score has increased from 26% of the total possible score (7.83 out of 30) in the fourth edition of the Index to 30% (10.34 out of 35) in the fifth edition. This increase reflects Vietnam's being a signatory to the TPP agreement and its moderate performance in some of the new indicators, including industrial design protection and the ability to commercialize IP assets. Nevertheless, although 2016 saw greater government focus on IP, overall efforts remain limited relative to the scale of the challenges and tend to occur on a case-by-case basis rather than on a large scale.

Patents, Related Rights, and Limitations

2. Patentability requirements: The Ministry of Science and Technology published proposed amendments to the patent examination rules (Circular 1/2007) that would streamline and clarify the system of review. The amendments would also allow for evidence submission that may be used to reverse a denial (currently, the only recourse is via an appeal). In addition, the National Office of IP enhanced cooperation with established patent offices, including in a new PPH with Japan, in an effort to improve capacity, accelerate patent examination, and address the growing backlog.

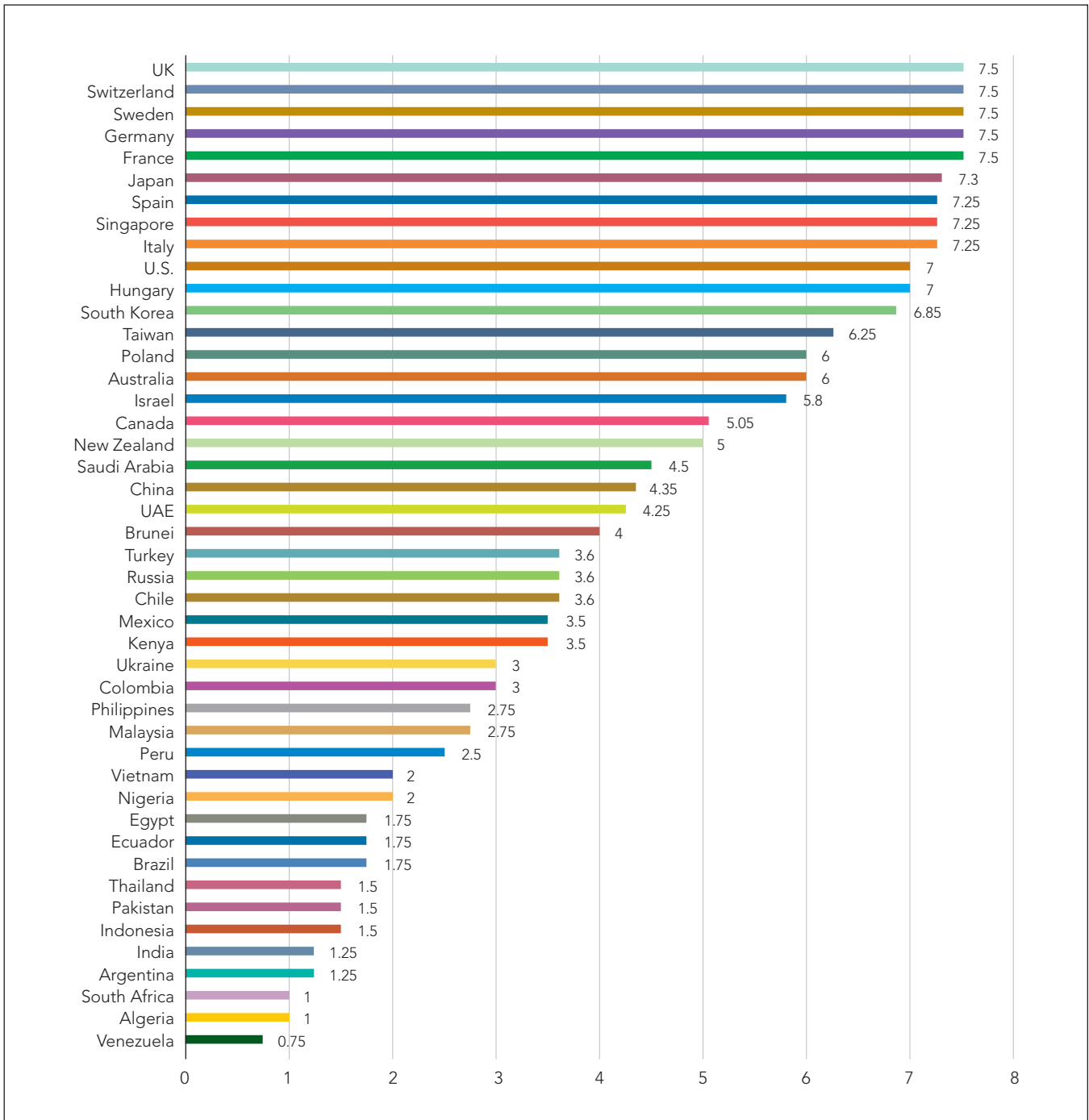
5. Legislative criteria and active use of compulsory licensing of patented products and technologies: A draft circular provides conflicting guidance on criteria for compulsory licensing, the framework for reviewing requests for licenses and the basis for calculating royalties/remuneration. In violation of TRIPS and in contrast with the existing IP law, the draft text does not include the requirement of a voluntary negotiation and license agreement before resorting to a compulsory license. In addition, like the current IP law, the draft contains overly broad language on the conditions for compulsory licensing, allowing the issuing of a compulsory license for "a drug for the treatment of diseases with high contraction rates in the community, a drug necessary to save a human life, and other events as determined by the Minister of Health" (Article 4). It also lacks an adequate recourse mechanism that would allow the patent holder to respond once the process of considering a compulsory license has started.

Membership and Ratification of International Treaties

35. At least one free trade agreement (FTA) with substantive and/or specific IP provisions such as chapters on IP and separate provisions on IP rights provided it was signed after WTO/TRIPS membership: The text of the European Union-Vietnam FTA (EVFTA) was agreed in 2016. The agreement will reportedly be signed in 2017 and enter into force in 2018. IP provisions in chapter 12 tackle a number of the major holes in the current IP system. Among other elements, these include providing a 2-year patent term extension, RDP for pharmaceuticals, narrower exceptions to copyright and DRM protection, a clear definition of liability for key types of online intermediaries, revocation of bad faith trademarks, enhanced civil remedies, and *ex officio* action by customs in relation to IP infringement. Vietnam is also a signatory to the TPP agreement, signed in 2016. The TPP includes stricter requirements than the EVFTA, such as a 70-year copyright and an 8-year RDP term of protection, patent term restoration including coverage of patent office delays, patentability of new medical uses, and protection for sound and scent marks. Vietnam has suggested it will defer ratification of the agreement to 2017.

Annex: Category Scores, Methodology, Sources, and Indicators Explained

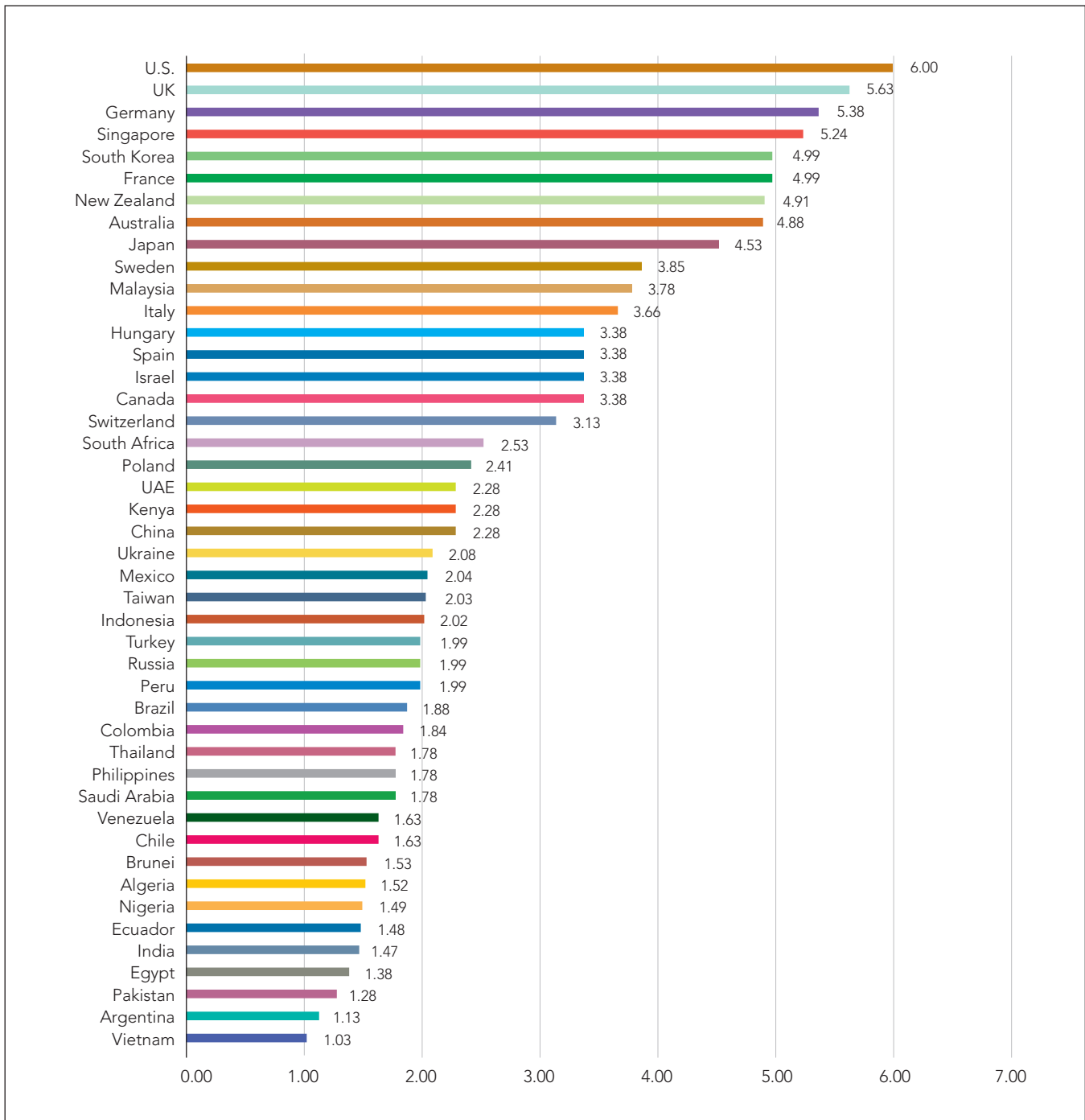
Category 1: Patents, Related Rights, and Limitations



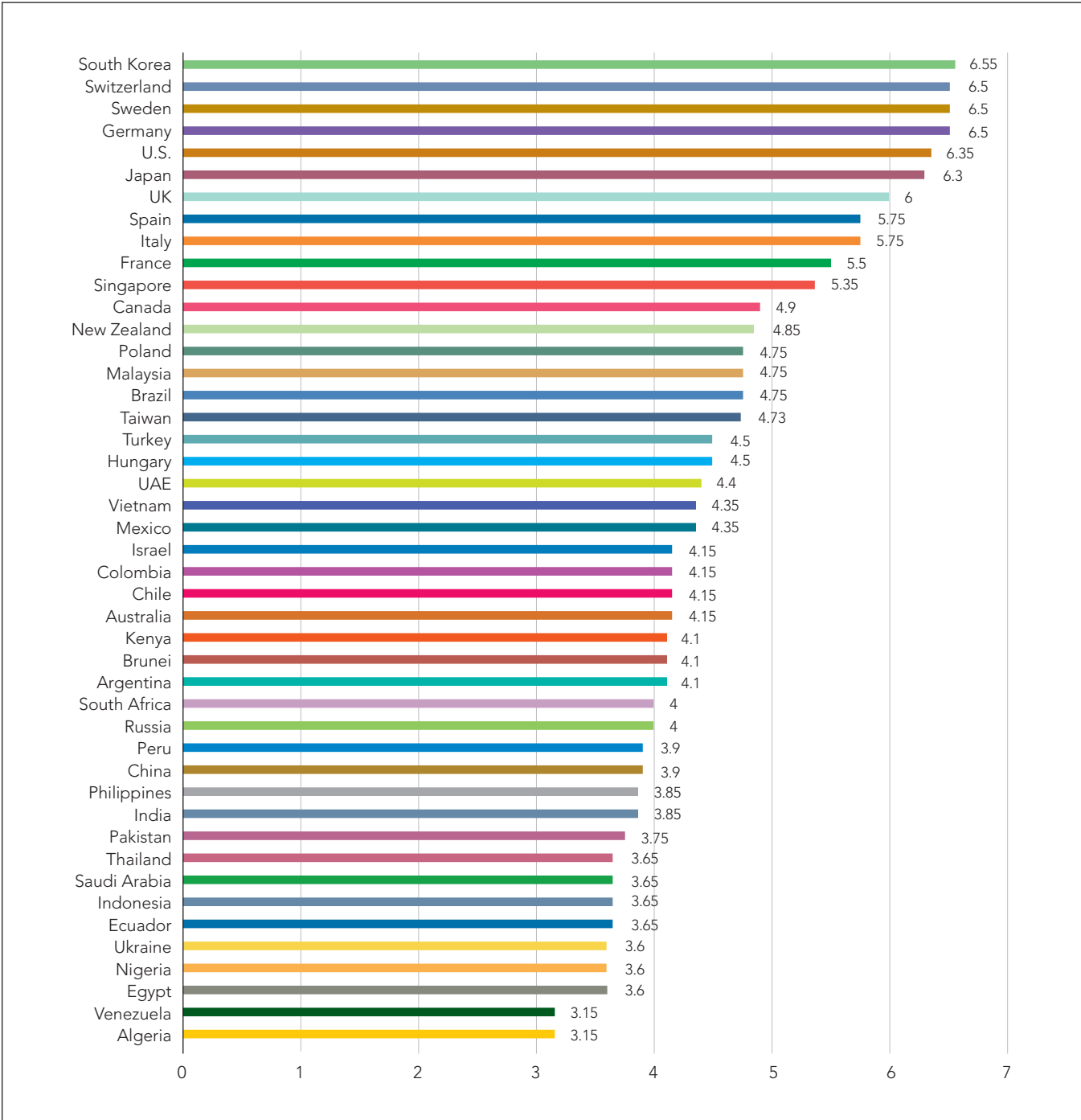
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Category 2: Copyrights, Related Rights, and Limitations



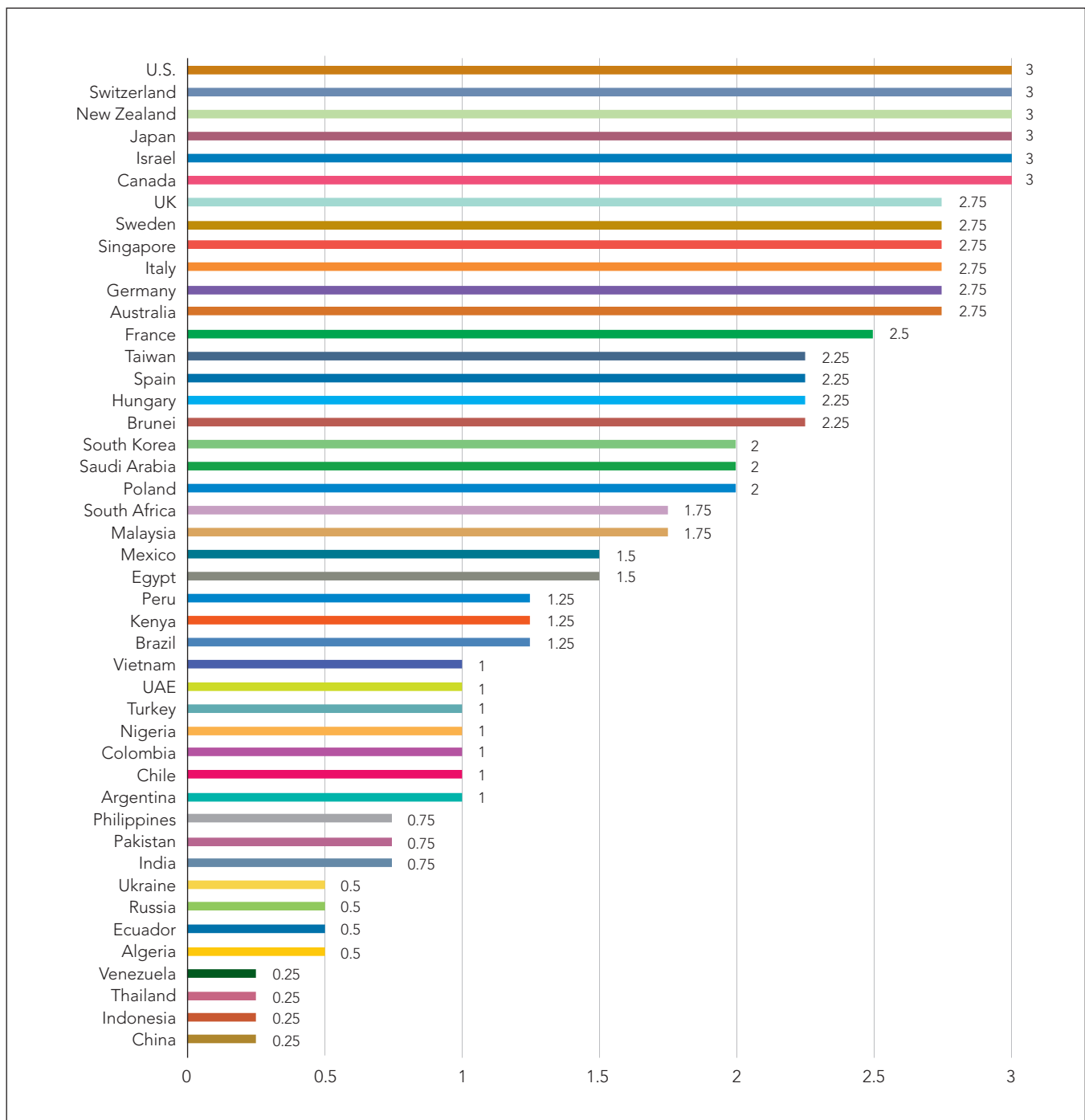
Category 3: Trademarks, Related Rights, and Limitations



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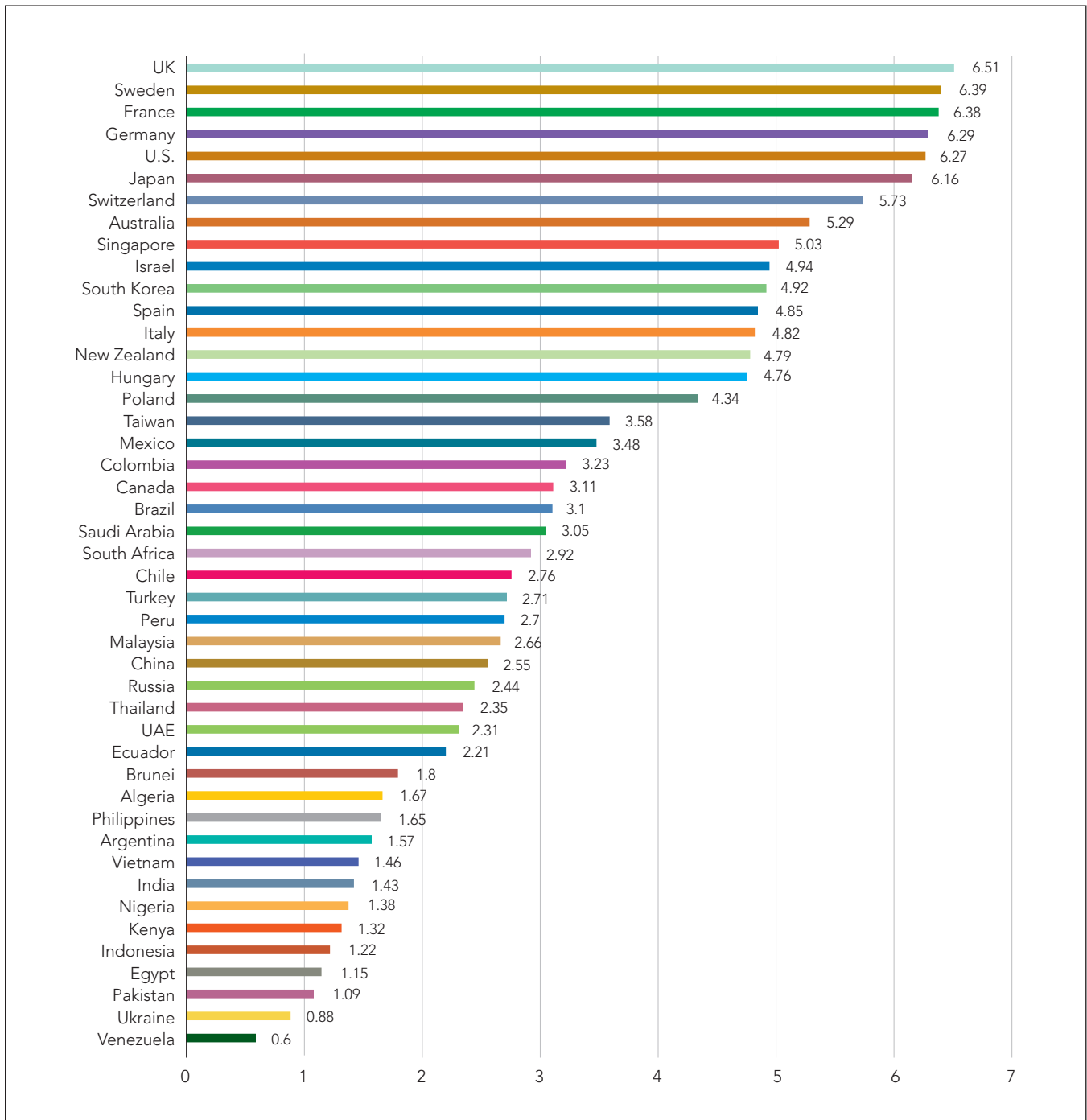


Category 4: Trade Secrets and Market Access





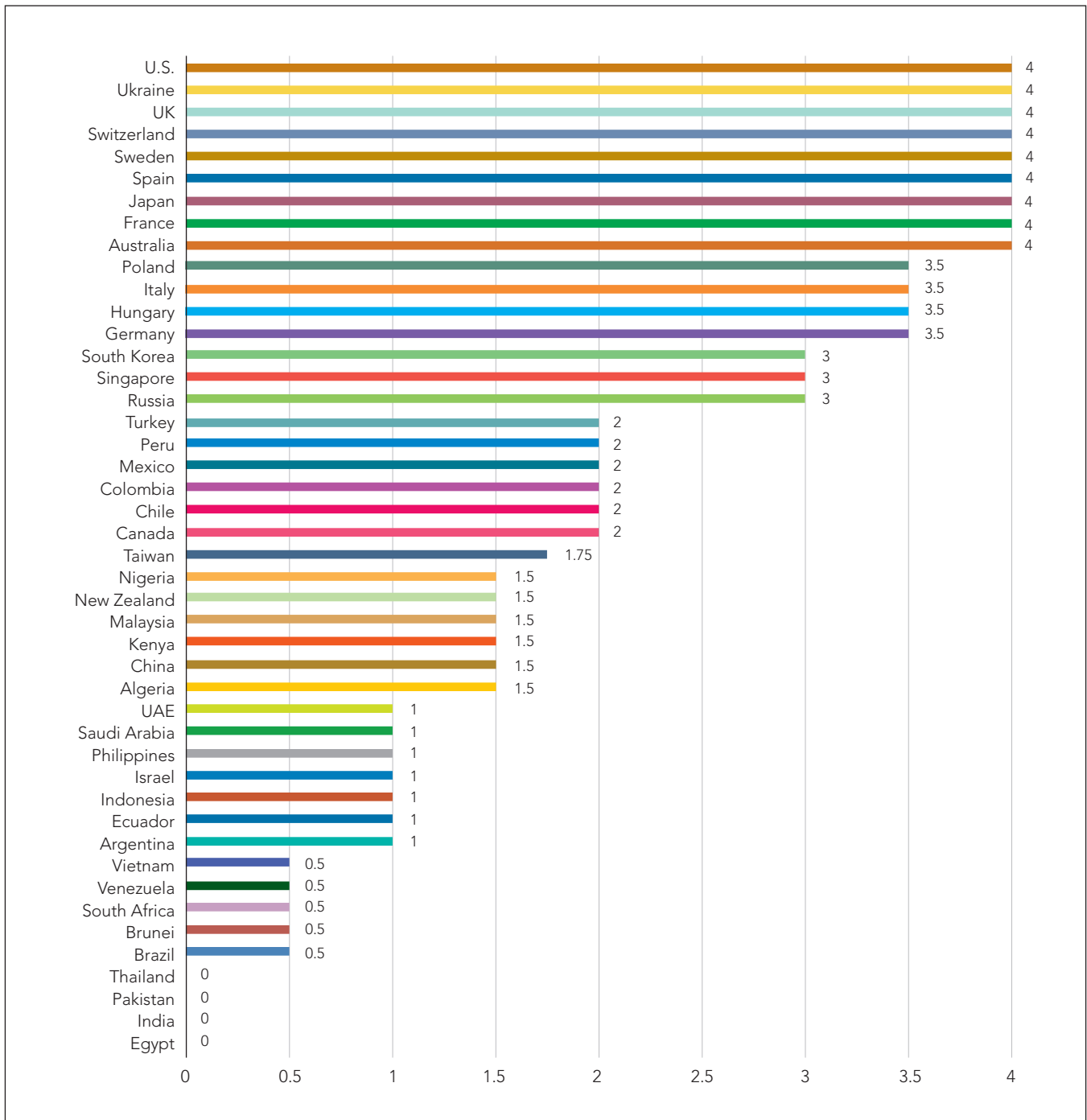
Category 5: Enforcement



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Category 6: Membership and Ratification of International Treaties





The Index consists of 35 indicators across 6 separate categories:

- 1) Patents, Related Rights, and Limitations;
- 2) Copyrights, Related Rights, and Limitations;
- 3) Trademarks, Related Rights, and Limitations;
- 4) Trade Secrets and Market Access;
- 5) Enforcement; and
- 6) Membership and Ratification of International Treaties.

As in previous editions, these categories are used for ease of organizing the Index and have no statistical impact on weightings or an economy's overall score in the Index. Each indicator is explained in more detail below.

Table I lists all 35 indicators that together make up the Index.

Table I: International IP Index: Categories and Indicators

Category 1: Patents, Related Rights, and Limitations
1. Patent term of protection
2. Patentability requirements
3. Patentability of computer-implemented inventions
4. Pharmaceutical-related patent enforcement and resolution mechanism
5. Legislative criteria and active use of compulsory licensing of patented products and technologies
6. Patent term restoration for pharmaceutical products
7. Regulatory data protection term
8. Patent opposition
Category 2: Copyrights, Related Rights, and Limitations
9. Copyright (and related rights) term of protection
10. Legal measures that provide necessary exclusive rights preventing infringement of copyrights and related rights (including Web hosting, streaming, and linking)
11. Availability of frameworks that promote cooperative action against online piracy
12. Scope of limitations and exceptions to copyrights and related rights
13. Digital rights management legislation
14. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed software

THE ROOTS OF INNOVATION



Table I: International IP Index: Categories and Indicators (continued)

Category 3: Trademarks, Related Rights, and Limitations
15. Trademarks term of protection (renewal periods)
16. Discrimination/restrictions on the use of brands in the packaging of different products
17. Ability of trademark owners to protect their trademarks: requisites for protection
18. Legal measures available that provide necessary exclusive rights to redress unauthorized uses of trademarks
19. Availability of frameworks that promote action against the online sale of counterfeit goods
20. Industrial designs term of protection
21. Legal measures available that provide necessary exclusive rights to redress the unauthorized use of industrial design rights
Category 4: Trade Secrets and Market Access
22. Protection of trade secrets
23. Barriers to market access
24. Regulatory and administrative barriers to the commercialization of IP assets
Category 5: Enforcement
25. Physical counterfeiting rates
26. Software piracy rates
27. Civil and procedural remedies
28. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement
29. Criminal standards including minimum imprisonment and minimum fines
30. Effective border measures
31. Transparency and public reporting by customs authorities of trade-related IP infringement
Category 6: Membership and Ratification of International Treaties
32. WIPO Internet Treaties
33. Singapore Treaty on the Law of Trademarks
34. Patent Law Treaty
35. At least one free trade agreement with substantive and/or specific IP provisions such as chapters on IP and separate provisions on IP rights provided it was signed after WTO/TRIPS membership



1. 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 35. 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 95 years, which is the term provided in the U.S.^{xi} Thus, the numerical formula for this subcategory is “*n years of basic copyright term/95*.” If an economy has a copyright term of 95 years, the value it scores on 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 the following:

- Primary and/or secondary legislation (regulation) in place; and
- The actual application and enforcement of that primary and/or secondary legislation.

Mixed indicators are the majority of indicators used in the Index, with 25 of the 35 indicators being mixed. Of the remaining 10 indicators, 8 are numerical and only 2 are binary. The use of mixed indicators provides greater 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 0 or 1.

Five possible scores are 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 their given reality.

Last, 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 6: 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.

2. 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 level. 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.

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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.
Design rights	25	EU

3. Measuring Counterfeiting and Piracy

Indicators 25 and 26 of the Index measure rates of physical counterfeiting and software piracy, respectively. Measuring piracy and counterfeiting presents a number of challenges.

First, illegal activities are inherently difficult to measure and quantify with a high level of accuracy. Estimates will out of necessity be based on variables such as physical seizures and surveys. This is particularly the case for online piracy.

Second, studies of rates of piracy and counterfeiting often are either economy-specific (focusing on one or a relatively small sample of economies) or global. 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 enough to make large-scale comparisons empirically robust.

Last, because measures of piracy and counterfeiting are inexact, estimates of their economic impact can vary widely depending on the methodology and data samples used.^{xii}

Up until its fourth edition, the Index 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 (the latest year for which data is available is 2013)^{xiii}; and
- Software piracy rates compiled by the Business Software Alliance (BSA) (2016 being the latest survey).^{xiv}

These sources are both robust and internationally recognized measures. 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 Index are numerical measures and can be transposed into two respective scores.

Still, there are caveats with the use of these measures, in particular the GTRIC-e.



First, the GTRIC-e Index 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 a number of 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. These results 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 used for this fifth edition of the Index and provides the basis for the score on indicator 25.

The measure provides a total and per economy estimate of rates of physical trade-related counterfeiting for each of the 45 economies included in the Index. The full details of the building of the model, methodology, and sources used, as well as an assessment of the wider threat of physical counterfeiting, is provided in the report *Measuring the Magnitude of Global Physical Counterfeiting*, available on the Global Intellectual Property Center (GIPC) website.

In brief, the methodology of the Global Measure of Physical Counterfeiting builds on that developed by the OECD and the GTRIC-e. Using the OECD's

estimates of total global levels of physical counterfeiting as a share of world trade, the Global Measure of Physical Counterfeiting estimates the percentage and dollar value of trade-based physical counterfeiting for each of the 45 economies included in the Index. To obtain a unique estimate for each of the 45 economies, the Global Measure of Physical Counterfeiting uses a proprietary metric that applies 3 equally weighted factors to provide a holistic take on the propensity for counterfeiting in the selected economies.

The first factor is the scores for the indicators within Category 5: Enforcement. These 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 goods in transit 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.

The second factor is the OECD's GTRIC-e benchmark discussed in detail above.

THE ROOTS OF INNOVATION



The third factor is the rate of corruption within an economy, as measured by Transparency International's Global Corruption Barometer.^{xv} 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.

The final score for indicator 25 is a simple average of the individual scores each economy receives on these three measures, with each factor weighted an equal one-third of the total indicator score.

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 26; the higher the BSA software piracy rate is in an economy, the lower its score on the Index. For example, if economy X has an estimated software piracy rate of 90% according to the BSA, it receives a score of 0.10 for indicator 26 within the Index.

4. 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 available and are free and accessible to all. The following is an outline of the different types of sources used.

Government

Sources from government branches and agencies include the following:

- Primary legislation;
- Secondary legislation (regulation) from executive, legislative, and administrative bodies;

- Reports from parliamentary committees and government agencies, including patent or IP offices as well as enforcement agencies; and
- Internal departmental guidelines, policies, assessments, and audits.

Legal

Sources from judicial authorities and legal practitioners include the following:

- 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 the following:

- Data, studies, and analysis from international organizations such as the OECD, WTO, and WIPO;
- Publicly available reports, studies, and government submissions by industry organizations; and
- Reports from nongovernment and consumer organizations.

Academic

Academic sources include the following:

- Academic journals; and
- Legal journals.

News

News sources include the following:

- Newspapers;
- News websites; and
- Trade press.



In addition to the above listed resources, over the course of the past few years, more and more governments and economies have started to make submissions directly to the GIPC and U.S. Chamber of Commerce. These submissions include everything from updates on legislative and regulatory initiatives to details about various government policies, such as antipiracy initiatives as well as data and statistics on anticounterfeiting and activities to fight online piracy.

The U.S. Chamber welcomes these submissions and endeavor to use them together with all other available information to provide the most accurate as possible 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 welcome all economies covered in the Index to consider doing so. The only criteria we use—just as for all resources used in the Index—is that the sources and materials submitted to us need to be publicly available and in the public domain.

5. Indicators Explained

This section explains how each indicator in the Index is measured and scored.

Category 1: Patents, Related Rights, and Limitations

The indicators included 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.^{xvi} 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 CIIIs. This is a mixed indicator.
- 4. Pharmaceutical-related patent enforcement and resolution mechanism** – Measured by the existence of primary and/or secondary legislation (such as a regulatory mechanism) that provides a transparent pathway for adjudication of patent validity and infringing issues before the marketing of a generic or biosimilar product. This score is evenly divided between the existence of relevant primary and/or secondary legislation and its application/enforcement. If no legislation is in place, the maximum score that can be achieved is 0.5 and is based on the extent to which *de facto* practices are in place that achieve a similar result. This is a mixed indicator.
- 5. Legislative criteria and active 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

THE ROOTS OF INNOVATION



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, compulsory licensing under the framework of TRIPS provisions on public health should not be used 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.

6. **Patent term restoration for pharmaceutical products** – Measured by the current baseline rate of five years used in the U.S. and EU. This protection is aimed at restoring the patent term granted to innovative pharmaceutical products, due to the prolonged research, development, and regulatory approval periods of such products. This category does not include other forms of patent term restoration that are granted on the basis of prolonged examination periods. This is a numerical indicator.
7. **Regulatory data protection (RDP) 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.^{xviii} This is a numerical indicator.
8. **Patent opposition** – Measured by the availability of mechanisms for opposing patents in a manner that does not delay the granting of a patent (in contrast to a right of opposition before the patent is granted) and ensures fair and transparent opposition proceedings. This is a mixed indicator.

Category 2: Copyrights, Related Rights, and Limitations

The indicators included in this category relate to copyright protection and related rights and limitations.

9. **Copyright (and related rights) term of protection** – Measured by the baseline term of protection not referencing the variable of the length of the author's life, 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. Where different minimum terms of protection are used for different forms of copyright, all terms are added together and divided by 95. This is a numerical indicator.
10. **Legal measures that provide necessary exclusive rights preventing 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.
11. **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.



12. 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).^{xviii} The score for this indicator is evenly divided between legislation and application in the court system. This is a mixed indicator.

13. 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.

14. Clear implementation of policies and guidelines requiring that any proprietary software used on government ICT systems should be licensed software – Measured by the extent to which (1) policies and guidelines are in place that stipulate the use of only licensed proprietary software 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.

15. Trademarks term of protection (renewal periods) – Measured by the renewal term of protection being offered; the baseline term is 10 years as provided by the Singapore Treaty on the Law of Trademarks. This is a numerical indicator.

16. Discrimination/restrictions on the use of brands in the packaging of different products – Measured by the extent to which different national laws and regulations do not unreasonably limit the rights holder from using/putting its brand, trademark, or corresponding trade dress on the package of its products, thereby curtailing its rights under trademark protection. This is a binary indicator.

17. Ability of trademark owners to protect their trademarks: requisites for protection – Measured by the extent to which existing laws and regulations and/or *de facto* practices allow for trademark protection through the use of the mark, regardless of whether the trademark owner registers the mark. This is a mixed indicator.

18. 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.

19. Availability of frameworks that promote action against the 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

THE ROOTS OF INNOVATION



providers upon learning 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 and 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.^{xix}

20. Industrial designs term of protection – Measured by the maximum term of protection being offered (including renewable periods); the baseline term is 25 years, which is the maximum term afforded in the European Union. This is a numerical indicator.

21. Legal measures available that provide necessary exclusive rights to redress the 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 use of an industrial design); and (2) apply these laws to prevent, deter, and remedy infringement of industrial design rights. This is a mixed indicator.

Category 4: Trade Secrets and Market Access

The indicators in this category relate to trade secrets, market access, and related rights and limitations.

22. Protection of trade secrets – Measured by the existence of (1) 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. Economies that do not have legislation in place but in which trade secrets and confidential information are effectively protected through other mechanisms can receive a maximum score of 0.5. Model legislation is TRIPS (Article 39(1)) & (2)). This is a mixed indicator.

23. Barriers to market access – The extent to which laws and regulations or *de facto* practices do not make access to an economy's market contingent on the sharing and/or disclosure of IP and know-how with a local or domestic entity. This indicator is measured by the extent to which (1) existing laws and procedures do not make market access contingent on the sharing or disclosure of IP 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.

24. Regulatory and administrative barriers to the commercialization of IP assets

– The extent to which regulatory and/or administrative mechanisms allow IP owners the “freedom to operate” as part of their commercialization and exploitation activities. This would include the avoidance of barriers or undue burdens on interacting parties in the following areas:

1. “Blanket” requirements for forced disclosure of technologies without the consent of the IP owner;
2. Governmental preapproval for any licensing agreement between parties;
3. Predetermined licensing terms, including FRAND, for proprietary technologies that have not been part of any standard-setting process (so called market-driven *de facto* standards, as opposed to *de jure*, formally created standards);



4. Restrictions on commercializing IP by public research organizations, academia, public hospitals, etc.; and
5. Discriminatory conditions that affect the licensing of technologies by foreign IP owners.

This is a mixed indicator.

Category 5: Enforcement

The indicators in this category measure the prevalence of IP rights infringement, the criminal and civil legal procedures available to rights holders, punishment rates, the authority of customs officials to carry out border controls and inspections, and the transparency of customs authorities.

25. 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.

26. Software piracy rates – Measured by rates of software piracy. This is a numerical indicator.

27. 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) their effective application. This indicator also reflects administrative enforcement measures where applicable. This is a mixed indicator.

28. Preestablished damages and/or mechanisms for determining the amount of damages generated by infringement – This is a mixed indicator.

29. 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). Model legislation includes TRIPS, Article 61. This is a mixed indicator.

30. Effective border measures – Measured by the extent to which goods in transit suspected of infringement may be detained or suspended. This indicator also measures the extent to which border guards have the *ex officio* authority to seize suspected counterfeit and pirated goods without complaint from the rights holder. This is a mixed indicator.

31. 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 are published on a regular and systematic basis and (2) the level of detail of these data. This is a mixed indicator.

Category 6: Membership and Ratification of International Treaties

The indicators in this category measure whether an economy is (1) a signatory of and (2) has ratified or acceded to international treaties on the protection of IP. Indicators 32–34 are measured using WIPO as a source. The following treaties each make up one indicator:

32. WIPO Internet Treaties – These consist of the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty.

THE ROOTS OF INNOVATION



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.

33. Singapore Treaty on the Law of Trademarks –

This is a mixed indicator.

34. Patent Law Treaty – This is a mixed indicator.

35. At least one free trade agreement with substantive and/or specific IP provisions such as chapters on IP and separate provisions on IP rights provided it was signed after WTO/TRIPS membership – This is a mixed indicator.

Endnotes

- i World Bank (2016), *Gross Domestic Product 2015, Ranking Table Updated October 2016*.
- ii 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 (2016), *Country and Lending Groups*, <http://data.worldbank.org/about/country-and-lending-groups>.
- iii Note that the World Bank does not include Taiwan in its classification or its databank. However, based on current per capita income levels, Taiwan would be classified as a high-income economy. World Bank (2016), *Country and Lending Groups*, <http://data.worldbank.org/about/country-and-lending-groups>.
- vi Note that the World Bank does not include Taiwan in its classification or its databank. However, based on current per capita income levels, Taiwan would be classified as a high-income economy. World Bank (2016), *Country and Lending Groups*, <http://data.worldbank.org/about/country-and-lending-groups>.
- v Pugatch, M. P. (2004), *The International Political Economy of Intellectual Property Rights*, pp. 129, 131; ICTSD, WHO, UNCTAD (2006), *Guidelines for the Examination of Pharmaceutical Patents: Developing a Public Health Perspective – A Working Paper*, p. vii.
- vi Broken down by relevant categories, the TRIPS Agreement scores on the Index are:
 - Category 1: Patents, Related Rights, and Limitations – 6 out of 8
 - Category 2: Copyrights, Related Rights, and Limitations – 2.03 out of 6
 - Category 3: Trademarks, Related Rights, and Limitations – 4.6 out of 7
 - Category 4: Trade Secrets and Market Access – 1.5 out of 3
 - Category 5: Enforcement – 2.5 out of 5 relevant indicators
- vii TPP Agreement, Chapter 18, "Intellectual Property."
- viii For greater certainty, that *ex officio* action does not require a formal complaint from a third party or rights holder. For the purposes of this article, a party may treat "goods under customs control" as meaning goods that are subject to a party's customs procedures. For the purposes of this article, a party may treat goods "destined for export" as meaning exported. This subparagraph applies to suspect goods that are in transit from one customs office to another customs office in the party's territory from which the goods will be exported. As an alternative to this subparagraph, a party shall instead endeavor to provide, if appropriate and with a view to eliminating international trade in counterfeit trademark goods or pirated copyright goods, available information to another party in respect to goods that it has examined without a local consignee and that are transhipped through its territory and destined for the territory of the other party, to inform that other party's efforts to identify suspect goods upon arrival in its territory.

THE ROOTS OF INNOVATION



- ix Broken down by relevant categories, the TPP agreement scores on the Index are:
 - Category 1: Patents, Related Rights, and Limitations – 7.55 out of 8
 - Category 2: Copyrights, Related Rights, and Limitations – 5.74 out of 6
 - Category 3: Trademarks, Related Rights, and Limitations – 4.1 out of 7
 - Category 4: Trade Secrets and Market Access – 1.5 out of 3
 - Category 5: Enforcement – 4.5 out of 5 relevant indicators
 - Category 6: Membership and Ratification of International Treaties – 2 out of 3
- x Saez, C. (2016), “ Special Feature: UN High Level Panel on Access to Medicines—First Reactions, Process Explained,” *IP Watch*, February 1, 2016.
- xi 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 the author plus an additional number of years (i.e., in cases where the rights holder is unknown or has already died). Accordingly, 95 years is the minimum term applied in U.S. law.
- xii These difficulties in 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 countries. Consequently, the indicators measuring piracy and counterfeiting in the Index are primarily based on physical piracy and counterfeiting, with the data from the BSA being based on both physical and digital software piracy. Nevertheless, a number of 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–\$650 billion and \$1,220–\$1,770 billion, respectively. Out of this total, digitally pirated products were estimated at \$30–75 billion in 2008 and forecast to be \$80–240 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–\$20 billion worth of digitally pirated recorded music was consumed in the U.S., with an additional \$1.4–\$2 billion of digitally pirated movies also consumed. Last, 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. 56–8; and Smith, M. D. & Telang, R. (2012), *Assessing the Academic Literature regarding the Impact of Media Piracy on Sales* (Social Science Research Network 2012).
- xiii OECD (2016), *Trade in Counterfeit and Pirated Goods*, pp. 110–1.
- xiv Business Software Alliance (BSA) (2016), *Seizing Opportunity through License Compliance: BSA Global Software Survey*, May 2016.

- xv Transparency International, *Global Corruption Barometer 2013*, <http://www.transparency.org/gcb2013>.
- xvi 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.”
- xvii 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 on this indicator is 0.5. The baseline numerical term used is that by the EU of 10 years (8+2) of marketing exclusivity.
- xviii 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).
- xix 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 (VeRO) Program—which 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>.



The U.S. Chamber of Commerce's Global Intellectual Property 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, Rachel Chu, and David Torstensson.

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