COVERING 98% OF WORLD GROSS DOMESTIC PRODUCT AND 93% OF WORLD POPULATION



2017

# INTERNATIONAL PROPERTY RIGHTS INDEX

**Executive Summary** 



## Study by DR. SARY LEVY-CARCIENTE

#### 2017 Hernando de Soto Fellow

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#### 2017 IPRI – EXECUTIVE SUMMARY

The International Property Rights Index (IPRI) is the flagship publication of Property Rights Alliance (PRA), an organization based in Washington, D.C., dedicated to the promotion of property rights around the world. In 2007, PRA instituted the Hernando de Soto fellowship for the purpose of developing the IPRI. Since then, the yearly IPRI has served as a barometer for the status of property rights, ranking the strength of both physical and intellectual property rights in countries around the world.

During 2017, PRA worked with 111 think tanks and policy organizations in 72 countries to compile case studies, conduct research, formulate public policy, and educate the public on the important role property rights play in their countries.

Property rights underline the values and principles related to individual liberty and economic freedom. A strong property rights system, as shown by the correlations with the Index, is conducive to fostering economic growth, human capabilities, research and innovation, environmental performance, and the creation of social capital. Property rights are a key ingredient for the prosperity of society. This year the Index has added a liberty dimension of development to evaluate its correlations with the IPRI.

The IPRI is built up from 10 factors, gathered under three components: the Legal and Political Environment (LP), Physical Property Rights (PPR), and Intellectual Property Rights (IPR). The overall grading scale of the IPRI is [0-10], where 10 is the highest value and 0 is the lowest value in each category.

The 2017 edition covers 98.44% of world GDP and 93.43% of the world's population.

#### I. RESULTS

The 2017 IPRI ranks a total of 127 countries (Figure 1). The selection of countries was determined only by the availability of sufficient data.

On average, the complete sample yielded an IPRI score of 5.6336. The Legal and Political Environment is the weakest component (5.1715) followed by Intellectual Property Rights (5.5027), while Physical Property Rights is the strongest component (6.2265). This year we found an overall improvement of the IPRI (+3.45%) and of its components (LP+0.81%, PPR+5.98% and IPR+3.18%).

New Zealand leads the 2017-IPRI with an overall score of 8.6335, and has the highest ratings in the LP (9.0311) and the PPR (8.8255) sub-indexes. Finland ranks second in the 2017-IPRI (8.6257) and has the second-highest IPR component (8.6714). Rounding out the top five 2017 IPRI scores are Sweden (8.6084), Switzerland (8.5614) and Norway (8.5326). The Scandinavian countries continue to report top IPRI rankings (Finland #2, Sweden #3, Norway #5, and Denmark #12). At the end of the top 15 list we find Austria (8.0122), the United States of America (8.0741) and the United Kingdom (8.1292). The USA leads the IPR component (8.7155), followed by Finland (8.6714), and Japan (8.3267). The group of top countries remains almost the same and their positions vary little from the previous IPRI edition (Figure 2).

Yemen ranks 127 in the 2017-IPRI (2.7281) followed by Venezuela (3.0566), Bangladesh (3.1170), Moldova (3.1781), Ukraine (3.4243), and Burundi (3.43). Considering the IPRI components the following countries have the smallest scores: For LP: Venezuela (1.6795), Yemen (1.6929), the Dem. Rep. of Congo (1.8236), and Burundi (2.0979). For PPR: Brunei (3.2598), Ukraine (3.3779), Bangladesh (3.5024), and Moldova (3.5102). For IPR: Yemen (1.7075), Bangladesh (2.6225), Moldova (2.6622), and Venezuela (2.8012). Most of the lowest scoring countries perform worst on the LP component. This situation is the opposite for the top countries and seems to hint at the ability of LP to pull the rest of the components upward.

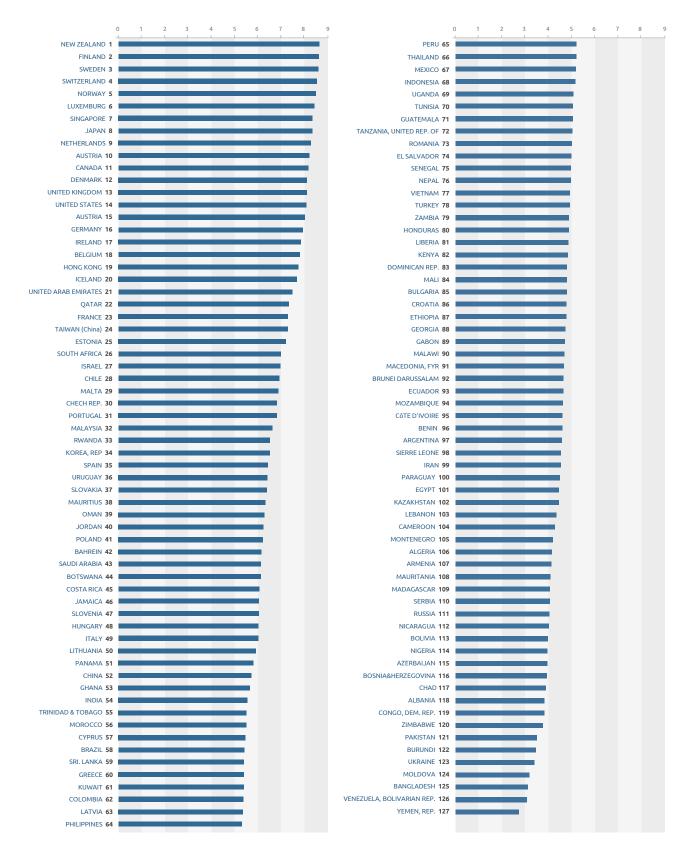


FIGURE 1. IPRI 2017: IPRI and its Components Scores by Country

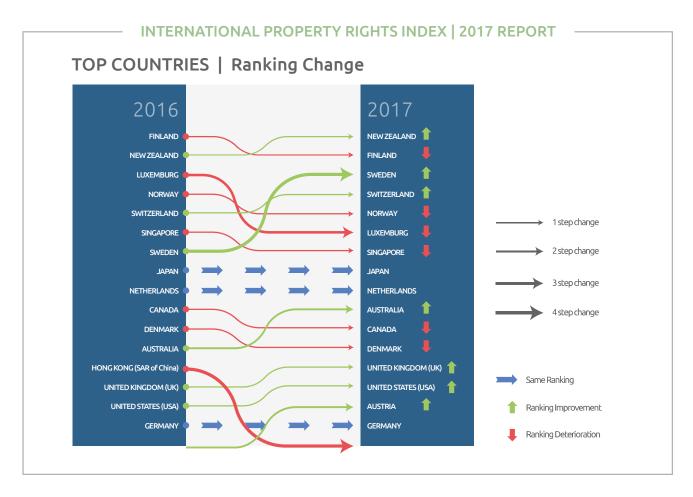


FIGURE 2. IPRI 2017 vs. IPRI 2016: Top Countries Ranking Change

#### II. IPRI GROUPS

Countries were grouped according to their relevant geographical regions, income levels, degree of development, and participation in regional integration agreements. Averages were calculated for each grouping.

North America (8.126) and Western Europe (7.664) earned the top positions, while Africa (4.810) and CEECA (4.937) are at the bottom. According to the World Bank geographical classifications, Oceania leads the groups (8.439), followed by the EU (6.815), and North America (7.149). All regions but the Rest of Europe (-0.124) improved their scores. Central America and the Caribbean increased the most, with an increase of 10.25% from 2016. According to the World Bank income classification the High Income (+5.44%) and the Low Income countries (+7.79%) improved the most. The Low Income classification (4.608) received better scores than the Lower-Middle-Income group (4.487), so for the first year, the IPRI scores do not directly follow income classification (Figure 3).

The Regional and Development classification of the IMF shows that the top IPRI-2017 scores are held by the Advanced Economies (7.419), followed by MENA & Pakistan (5.210), Emerging and Developing Asia (5.146), and Latin American and Caribbean countries (5.117). Emerging and Developing Asia (+7.72%) and Latin American and Caribbean (+7.61%) improved the most. All regions improved their scores compared to those of 2015.

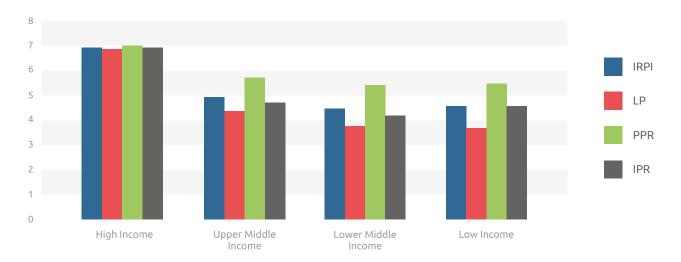


FIGURE 3. IPRI 2017 and components. Income Groups Score

#### III. IPRI and POPULATION

This year's sample of 127 countries has a population of 6.87 billion people, with 68% of the population living in 66 countries with an IPRI score between [4.5 and 6.4], while 15.2% of the population enjoys higher levels of property rights protection in 34 countries [6.5-9.4], 16.8% of the population live in 27 countries with the lowest levels of property rights [2.5-4.4] (Figure 4).

IPRI 2017	Countries (number)	Population (thousand)	Population (%)	Incidence (%)	IPRI- Population
2.5 a 3.4	6	279,008	4.06	2.646	2.307
3.5 a 4.4	21	873,551	12.72	11.846	9.062
4.5 a 5.4	44	1,693,397	24.66	30.365	22.571
5.5 a 6.4	22	2,978,506	43.38	18.510	44.605
6.5 a 7.4	13	285,176	4.15	12.615	5.215
7.5 a 8.4	15	723,165	10.53	16.830	15.472
8.5 a 9.4	6	33,888	0.49	7.187	0.768
	127	6,866,690	100	100	100

FIGURE 4. IPRI 2017 and population

#### IV. IPRI and GENDER

Gender Equality (GE) is a goal in itself. Its development is linked particularly to health, education, agriculture and unbiased access to credit for reducing poverty. In this way, gender equality plays a decisive role for less developed and developing countries.

The GE scores were calculated on a scale of 0-10, using five indicators: women's access to land, women's access to credit, women's access to property other than land, inheritance practices, and women's social rights. After calculating gender equality as an independent measure the results were than added as an 11th component to the existing IPRI, to make the IPRI-GE using a scale [0-12].

The 2017 IPRI-GE shows results for 123 of the 127 countries included in this year's sample. The GE world avarage is 7.118 which is lower than the prior two years (2016=7.466; 2015=7.39), while the IPRI-GE score is 7.438 showing a sustained improvement (2016=6.933; 2015= 6.76). This means that gender equality is deteriorating as an average, while the property rights protection improves. Looking in detail at the GE component we find that the Inheritance Practices and Women Access to Land Ownership are the two items with the lowest scores.

New Zealand leads the IPRI-GE (10.628), followed by Finland (10.62), Sweden (10.61), Norway (10.53), Luxembourg (10.46), Switzerland (10.45), Japan (10.31), Netherlands (10.29), Australia (10.24), Canada (10.17), Denmark (10.16), USA (10.07), and Austria (10.01). On the other extreme of the IPRI-GE, with scores below 5, we find Yemen Rep. (3.45), Bangladesh (3.91), Congo Dem. Rep. (4.35), Pakistan (4.47), Nigeria (4.57), Burundi (4.63), Chad (4.63), Moldova (4.76), Mauritania (4.86), and Algeria (4.998) (Figure 5).

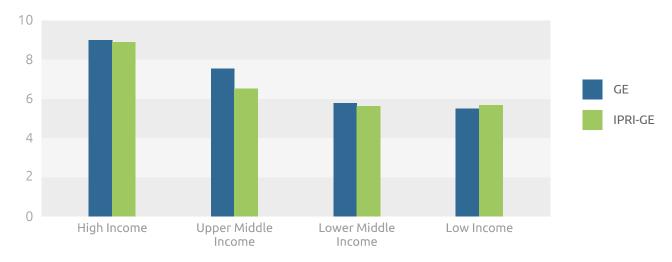


FIGURE 5. IPRI-GE Income Classification

The top geographical regions are North America (10.121) and Western Europe (9.655), while at the bottom we find Africa (5.887) and MENA countries (6.463). Advanced Economies (9.367) lead the Regional and Development groups, followed by Latin America and the Caribbean (6.785) and Emerging and Developing Europe (6.630). At the bottom we find CIS (5.664) and Sub-Saharan Africa (5.926). CIS countries show a high GE score (8.422) but the IPRI score (3.980) pulls down the IPRI-GE.

A similar situation happens with Latin America and the Caribbean (GE=8.336; IPRI=5.117; IPRI-GE=6.785), while the opposite happens with MENA & Pakistan (GE= 4.377) and Emerging and Developing Asia (GE=5.952), where the GE score is low (Figure 6).

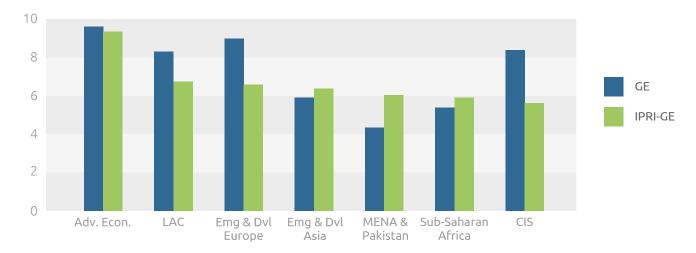


FIGURE 6. IPRI-GE. Geographical Regions

#### V. IPRI and DEVELOPMENT

Given the extensive literature that reports the important interactions between property rights and development, we analyzed different dimensions of development: Economic Outcomes; Liberties; Social Capital; Human Capabilities; Research and Innovation; and Ecological Performance with the IPRI and its sub-index components. Most of the correlations found were significant and robust (Figure 7).

For the Economic Dimension, the Entrepreneurial Environment (GEI) presented the strongest correlation with the IPRI (0.8781) especially with LP (0.8861). This is a very important finding, as entrepreneurship is the building block of innovation, investment, production, and economic growth. It is also important to highlight that the GDP per capita correlations increased when adjusted by the GINI Coefficient, which is a measure of dispersion (or inequality).

The propensity of countries to exploit opportunities offered by Information Communication Technology (ICT) as recorded in the NRI, a measure included in the new Liberties dimension, showed a correlation of 0.8570. The strongest correlation is in the IPRI LP category (0.881). All measures in the Liberties Dimension were stronger with the LP component. From the Social Capital Dimension, Civic Activism (0.8013) showed the strongest correlation, and from Research and Innovation Dimension, Human Resources (0.7607) showed the greatest fit.

Figure 8 shows that, on average, countries in the top quintile of IPRI scores (i.e. top 20%) have a per capita income almost 13 times that of countries in the bottom quintile. This disparity has reduced over time, in 2016 it was almost 21 times and in 2015 almost 24 times greater.

Pearson's Correlation Coefficients			IPRI	LP	PPR	IPR
Economic Outcomes	Production	GDP per capita	0.814	0.821	0.630	0.788
		GDP per capita *GINI	0.839	0.826	0.659	0.834
	Investment	Gross Capital Formation per capita	0.764	0.767	0.635	0.707
	Complexity of Production	Economic Complexity	0.720	0.721	0.514	0.744
	Enterpreneurship	Global Enterpreneurship (GEI)	0.878	0.886	0.690	0.840
Liberties	Economic	Index of Economic Freedom, IEF	0.768	0.812	0.633	0.669
		Economic Freedom of the World, EFW	0.675	0.722	0.576	0.565
	Absence of Coercion	Human Freedom Index, HFI	0.732	0.792	0.499	0.708
	Connectivity	Networked Readiness Index, NRI	0.857	0.881	0.678	0.812
Social Capital	Social Capital	Social Capital comp. (Prosperity Index)	0.747	0.711	0.694	0.685
	Activism	Civic Activism	0.801	0.800	0.605	0.810
	Cohesion	Intergroup Cohesion	0.565	0.631	0.394	0.523
	Trust	Interpersonal Safety & Trust	0.656	0.712	0.498	0.595
	Inclusion	Inclusion of Minorities	0.635	0.674	0.445	0.618
Human Capabilities	Current Situation	Human Development Index, HDI	0.679	0.738	0.477	0.638
	Future Condition	Global Index on Freedom of Education, GIFE	0.605	0.590	0.477	0.610
R&I	Human Resource	Researchers in R&D	0.761	0.752	0.553	0.796
	Financial Resource	Research & Development expenditure	0.685	0.635	0.495	0.758
EP	Ecological Performance	EPI-Yale	0.594	0.648	0.395	0.574

FIGURE 7. Pearson's Correlation Coefficients

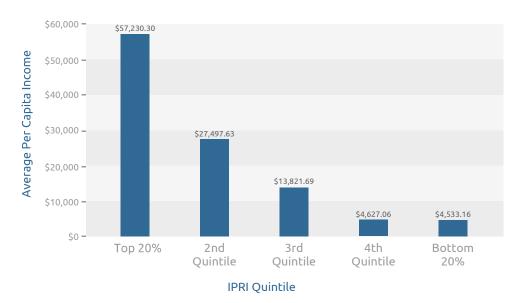


FIGURE 8. Average Per Capital Income by IPRI Quintiles

#### **VI. IPRI CLUSTERS**

A cluster analysis was performed for all 127 countries according to their values in LP, PPR and IPR aiming to group similar countries. The analysis showed that three clusters were sufficient to explain country groupings. Each cluster represents more than a grouping by variables directly associated with property rights; they are groups with common characteristics within them and with different features between clusters, which confirms the consistency of the IPRI and the relevance of property right systems influencing societies. It is important to notice that this year we found a significant movement of most of the countries to an improved position (Figure 9).

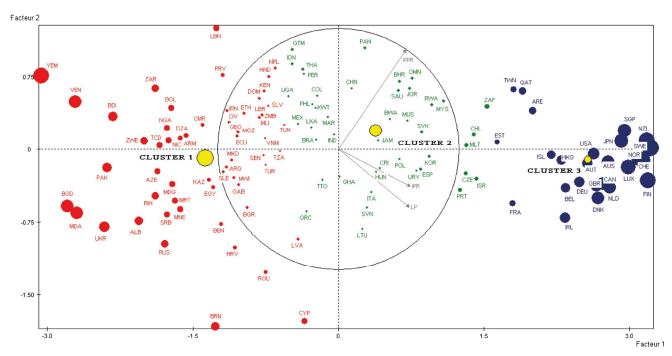


FIGURE 9. Cluster's Members & Centroids

### 2017 Case Study Abstracts

#### Patent Box in Italy: Light and Shadow of a Special Tax Regime

By Prof. Cesare Galli, Istituto Bruno Leoni

In 2015 Italy implemented the "Patent Box", an optional tax system for income arising from the use of IP rights. The first European country to introduce such an incentive was Ireland in 2000. Then France, Belgium, Hungary, Luxembourg, the Netherlands, Spain and the United Kingdom followed. As part of its Base Erosion and Profit Shifting project, the OECD has recommended the implementation of a common approach aimed at ensuring that only the income created in one country can benefit from that country's corresponding tax relief, proportionate to the investment made there. Despite its name, however, the Italian patent box applied not only to patents and know-how, but also to copyright (at least partially), designs and trademarks (the latter, however, were excluded in 2017). Furthermore, the Italian Ministry of Economic Development issued implementation rules aimed at facilitating use of this system by SMEs. However, the Ministry of Economy and Finance took an inconsistent approach, which multiplied the burdens of those who want to benefit from the system, by requiring analytical documentation of costs incurred for the creation of every single intellectual property product – often an impossible task. It has thus lost the opportunity to encourage Italian companies to re-shore their IP rights and manufacturing activity. Instead, since IP revenue and production of many important Italian companies remain parked in foreign subsidiaries the Italian Patent Box led to a reduction in the amount of tax revenue, rather than increasing the taxable income in Italy. This has created disappointment and garnered distrust from Italian tax authorities.

#### A Century of Injustice: Rule of Law, Constitutions and Property Rights in Mexico

By Esteban Gonzalez Herrejón, Caminos de la Libertad

This case study is about institutional rules of the political game: collective decision making, legislation, government in general, and their role in protecting individual rights. It focuses on a thin, but substantial, conception of the rule of law to restate the normative argument for constitutional justice mechanisms as part of the basic institutions of a free society. Then, through an analysis of the Mexican juicio de amparo judicial review mechanism, this study argues that constitutional justice and the protection of human rights require judicial review to have general effects over unconstitutional fiscal laws. The fact that fiscal amparo protects only the rights of those who go to court damages judicial rationality and institutional legitimacy. Independence is hurt as the courts are used by interest groups to advance their economic interests over others without the resources to defend their rights. This generates incentives for politicians to take into account judicial review, but nonetheless enact unconstitutional laws every year as only a few individuals will be protected against them, and incentivizes firms to engage in rent-seeking behavior. In the end, I draw some reflections upon methodological concerns for the rule of law measurement and consolidation.

## Weak Governments and Partial Protection: Property Rights in the Western Balkans

By Admir Čavalić and Mihailo Gajić, MULTI & Libek

The Western Balkan countries of Serbia, Montenegro, Macedonia, Bosnia and Herzegovina, Albania and Kosovo lag behind other European transition countries in terms of economic development and European Union accession. Although these countries have introduced deep reforms in many areas, especially during the transition process of privatization and democratization, property rights in these countries are not well protected which hinders further economic development and social change. Instead of protecting property rights, state governments in these countries choose to infringe these rights to pursue political goals. Instead of protecting property rights, state governments in these countries choose

to infringe these rights to pursue political goals. The aim of this paper is to point out differences between Western Balkan countries in their transition path from other transition countries in the region. The paper illustrates the impact of these differences on property right protections with case studies from Serbia, and Bosnia and Herzegovina. The paper describes the present and past state of private property rights in Western Balkan countries with a focus on the transition period from communism to democracy. In conclusion, based on the comparative analysis, this paper offers a set of recommendations for improving private property rights in the Western Balkans.

#### Property Rights in the Unique and Profitable Venezuelan Energy Sector

By Víctor J. Poleo Uzcátegui, CEDICE

There is a debate in Venezuela over who owns natural energy resources and who should receive revenue derived from their sale. Currently, the resources are said to be owned by the nation, yet revenue from these resources do not go to the public but to the Executive Branch, which is under the control of the dominant political party. This has created a power imbalance and caused a great deal of political instability as the incumbent party is able to take advantage of the national resources for partisan purposes. This paper suggests the creation of an Energy Council to oversee revenue distribution from resource extraction industries. This is a stark contrast from the current policy, which is a product of "socialism in the twenty-first century" ideas. With an Energy Council, management decisions to use revenues derived from resource extraction industries would be tied together and allocated more efficiently, sterilized from political manipulation. The existing socialist policy, implemented by the past and current Bolivarian governments has nationalized electricity, oil, gas, and mining industries. The results have been nothing short of disastrous: shortages of essential goods and declining revenue. It is time for change and new ideas. The Energy Council will play a stabilizing role by separating the oil, gas, coal, and gold industries from partisan politics. The paper contains details on how the current system operates and how an independent energy council can be formed to play a constructive role in solving the Venezuelan crisis.

# A Special Case Study on Religion & Property Rights: Property Rights from a Judaism Perspective. Dominion and Property Rights in Judaism

By Dr. Rabbi Joseph Isaac Lifshitz, Shalem College

Jewish economics is derived from its theology and its legal system – the Halakha. According to its theology, man was created "in God's image" with a Godly portion within him. Jewish tradition insists that man can, and should, have a powerful impact upon the material world, to have dominion and to accumulate wealth. This insistence plays itself out in a vastly different view of property rights. Ownership does not generate only pleasure, but also responsibility towards the needy, and through this responsibility it expresses the Godly portion within man. Ownership, or property rights, in Judaism, are not given to the individual from the state and they are not respected because of their contribution to society. According to the Jewish legal system, the Halakha, property rights are perceived as a just right, and they are generated from the divine law, as prohibitions and obligations of every person towards his fellow's dominion over his property.