

CHAPTER IV: RESULTS

This chapter presents the results of the 2011 *International Property Rights Index* (IPRI). The complete scores and rankings, presented according to various criteria, follow a brief overview of the data and outcomes. Notes on score adjustments can be found here. The chapter concludes with a presentation on the relationship between IPRI scores and countries' economic well-being.

Data and Outcome Characteristics

The IPRI's 2011 rankings are based on data obtained from currently available authoritative sources. Most of these sources derive their data from opinion surveys. Generally, experts in their respective fields participate in these surveys, and the resulting ratings in the form of a numeric factor are based on their judgment. Based on these sources, a country that ranks the highest or lowest in the IPRI does not necessarily have the strongest or weakest property rights, respectively. Instead, rankings are based on the *perception* of the relative strength of a country's property rights regime. Nevertheless, the authors view the expert surveys to be a good and reliable source of judgment related to a country's *de facto* characteristics instead of some measure of what laws and practices may exist in statute only.

Several variables in the IPRI are based on 'hard data.' For example, the numbers of procedures and days necessary to register property, while also based on surveys, are not based entirely on perceptions but on estimates of actual procedures involved. Similarly, estimates of the level of piracy are based on actual economic data from trade groups like the International Intellectual Property Alliance and the Business Software Association.

A plan for future indices is to use additional hard data. For example, it would be valuable to include measures of property rights enforcement or the extent of formalization of property rights based on actual data instead of expert opinions. Future Hernando de Soto fellows will concentrate on seeking and including the most comprehensive and up-to-date sources for additional information on property rights protections.

In analyzing the final outcome of the scoring process, the reader is presented with two related but ultimately different measures of property rights protections throughout the sample: ordinal and cardinal. The scores are presented in such a way that the reader can easily compare countries according to how they rank relative to each other, as well as how they score on a scale of 0 to 10. The authors hope that while the relative ranking proves useful, it is the score itself that provides the most useful measure of how well a country protects and enforces property rights.

IPRI Ranking

The 2011 IPRI contains rankings on the relative strength of a property rights regime in 129 economies. This sample includes 97 percent of the world's GDP. [Figure 2](#) and [Table 1](#) present the rankings by highest to lowest scores and scores by country, respectively.

Because of the larger country coverage this year, the rankings in the 2011 report are not directly comparable to the rankings in the 2010 report. Therefore, the authors will primarily focus on discussing the score changes instead of the ranking changes from 2010. A more detailed overview of the countries' score changes for the IPRI and their components can also be found in Appendix I.

Figure 2: Ranking by IPRI Score

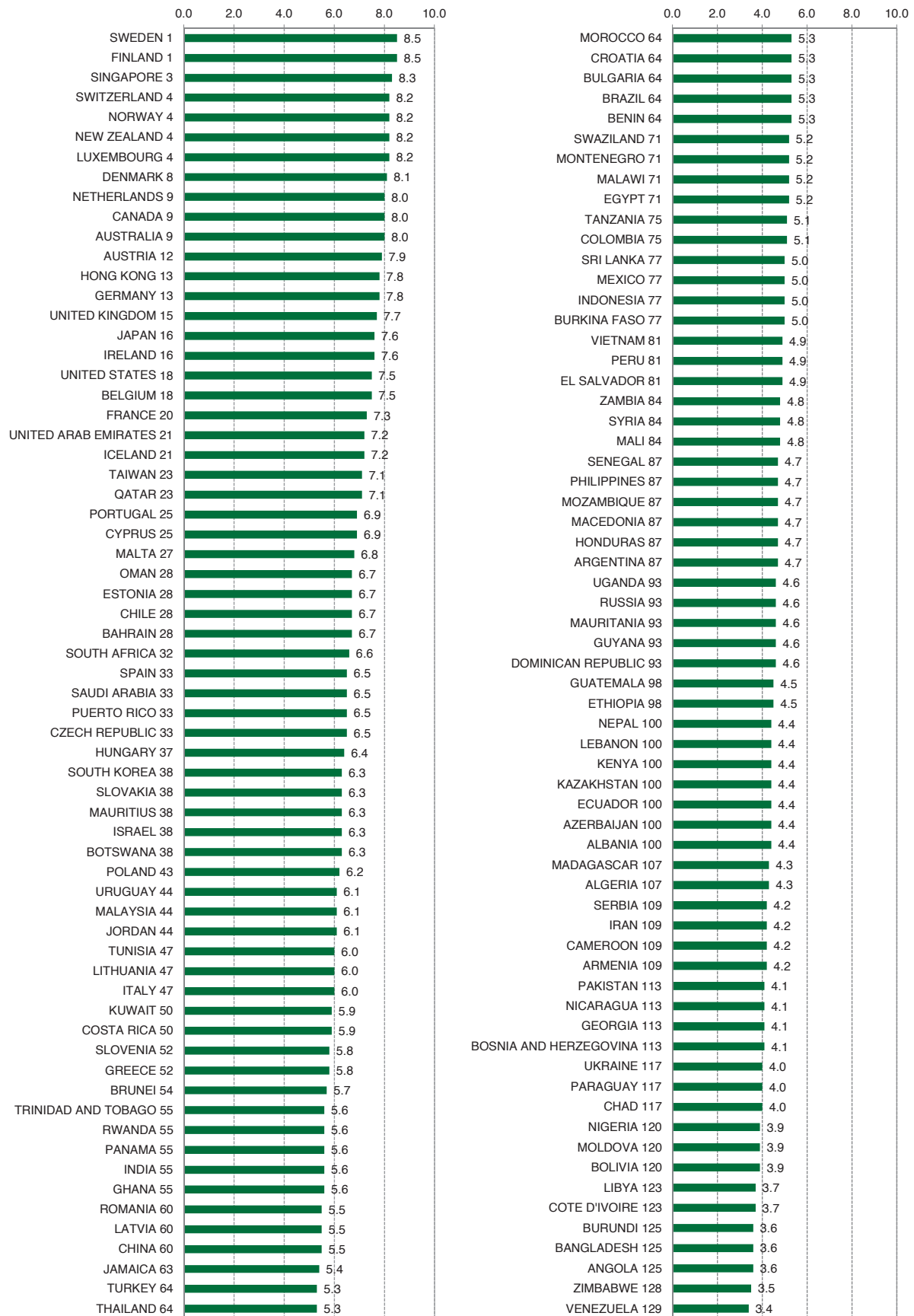


Table 1: Scores by Country

Country	IPRI	LP	PPR	IPR	Country	IPRI	LP	PPR	IPR
ALBANIA	4.4	4.5	5.5	3.3	LITHUANIA	6.0	5.8	6.3	5.9
ALGERIA	4.3	3.5	5.4	3.9	LUXEMBOURG	8.2	8.5	7.9	8.3
ANGOLA	3.6	3.1	4.5	3.1	MACEDONIA	4.7	4.6	5.5	3.9
ARGENTINA	4.7	4.1	5.1	5.0	MADAGASCAR	4.3	3.8	5.3	3.9
ARMENIA	4.2	4.2	5.9	2.5	MALAWI	5.2	5.1	5.6	4.9
AUSTRALIA	8.0	8.3	7.7	7.9	MALAYSIA	6.1	5.6	6.8	5.9
AUSTRIA	7.9	8.1	7.5	8.1	MALI	4.8	4.1	5.5	4.9
AZERBAIJAN	4.4	3.8	6.2	3.2	MALTA	6.8	7.3	6.8	6.4
BAHRAIN	6.7	5.9	8.1	6.0	MAURITANIA	4.6	3.3	5.5	5.1
BANGLADESH	3.6	3.4	4.5	2.8	MAURITIUS	6.3	6.6	7.2	5.0
BELGIUM	7.5	7.4	7.0	8.0	MEXICO	5.0	4.2	5.7	5.0
BENIN	5.3	4.5	6.2	5.2	MOLDOVA	3.9	3.7	5.6	2.3
BOLIVIA	3.9	3.2	4.5	4.0	MONTENEGRO	5.2	5.4	6.6	3.6
BOSNIA AND HERZEGOVINA	4.1	4.1	4.9	3.3	MOROCCO	5.3	4.6	6.2	5.1
BOTSWANA	6.3	6.8	7.2	5.0	MOZAMBIQUE	4.7	4.6	5.2	4.3
BRAZIL	5.3	5.0	5.5	5.5	NEPAL	4.4	3.2	5.8	4.1
BRUNEI	5.7	7.0	5.8	4.4	NETHERLANDS	8.0	8.4	7.5	8.2
BULGARIA	5.3	5.0	5.6	5.4	NEW ZEALAND	8.2	8.8	7.7	8.0
BURKINA FASO	5.0	4.2	5.6	5.3	NICARAGUA	4.1	3.5	4.9	3.9
BURUNDI	3.6	2.6	4.8	3.5	NIGERIA	3.9	2.9	4.6	4.1
CAMEROON	4.2	3.5	5.3	3.9	NORWAY	8.2	8.5	8.3	7.8
CANADA	8.0	8.4	7.5	8.1	OMAN	6.7	6.6	7.8	5.6
CHAD	4.0	2.4	4.9	4.6	PAKISTAN	4.1	2.8	6.0	3.6
CHILE	6.7	7.3	7.0	5.8	PANAMA	5.6	4.6	6.8	5.3
CHINA	5.5	4.5	6.8	5.2	PARAGUAY	4.0	2.9	5.4	3.6
COLOMBIA	5.1	3.8	6.0	5.4	PERU	4.9	3.7	6.5	4.4
COSTA RICA	5.9	6.6	6.1	5.0	PHILIPPINES	4.7	3.5	5.8	4.9
COTE D'IVOIRE	3.7	2.4	5.0	3.8	POLAND	6.2	6.4	5.6	6.6
CROATIA	5.3	5.3	5.7	4.8	PORTUGAL	6.9	6.8	6.8	7.0
CYPRUS	6.9	7.0	7.5	6.3	PUERTO RICO	6.5	6.3	6.2	6.9
CZECH REPUBLIC	6.5	6.3	6.3	6.9	QATAR	7.1	7.9	7.5	5.9
DENMARK	8.1	8.7	7.3	8.3	ROMANIA	5.5	5.2	5.8	5.4
DOMINICAN REPUBLIC	4.6	4.2	5.7	4.0	RUSSIA	4.6	3.5	5.2	5.0
ECUADOR	4.4	3.0	5.3	4.8	RWANDA	5.6	5.2	6.3	5.4
EGYPT	5.2	4.6	6.2	4.9	SAUDI ARABIA	6.5	5.6	7.9	5.9
EL SALVADOR	4.9	4.4	6.0	4.4	SENEGAL	4.7	4.4	5.4	4.2
ESTONIA	6.7	7.1	7.1	5.8	SERBIA	4.2	4.1	5.2	3.2
ETHIOPIA	4.5	3.3	5.6	4.6	SINGAPORE	8.3	8.3	8.3	8.3
FINLAND	8.5	8.8	8.3	8.5	SLOVAKIA	6.3	5.7	6.7	6.5
FRANCE	7.3	7.2	6.7	7.9	SLOVENIA	5.8	6.8	4.7	5.9
GEORGIA	4.1	4.1	6.0	2.3	SOUTH AFRICA	6.6	5.5	6.9	7.3
GERMANY	7.8	8.1	7.1	8.1	SOUTH KOREA	6.3	6.0	6.1	6.8
GHANA	5.6	5.2	6.0	5.7	SPAIN	6.5	6.1	6.6	6.9
GREECE	5.8	5.4	6.0	6.1	SRI LANKA	5.0	4.5	6.1	4.4
GUATEMALA	4.5	3.5	6.1	4.0	SWAZILAND	5.2	4.6	6.2	4.8
GUYANA	4.6	4.1	5.7	4.0	SWEDEN	8.5	8.8	8.2	8.5
HONDURAS	4.7	3.9	5.7	4.4	SWITZERLAND	8.2	8.5	7.8	8.3
HONG KONG	7.8	8.1	7.9	7.5	SYRIA	4.8	3.7	6.2	4.6
HUNGARY	6.4	6.1	6.3	6.9	TAIWAN	7.1	6.4	7.6	7.2
ICELAND	7.2	8.3	6.8	6.5	TANZANIA	5.1	4.6	5.5	5.1
INDIA	5.6	4.7	6.6	5.5	THAILAND	5.3	4.6	6.8	4.5
INDONESIA	5.0	4.2	6.7	4.0	TRINIDAD AND TOBAGO	5.6	5.3	5.3	6.2
IRAN	4.2	3.5	5.4	3.8	TUNISIA	6.0	5.7	7.2	5.2
IRELAND	7.6	8.2	6.7	7.9	TURKEY	5.3	4.6	6.1	5.1
ISRAEL	6.3	6.1	5.9	7.0	UGANDA	4.6	3.8	5.0	5.0
ITALY	6.0	5.5	5.7	6.9	UKRAINE	4.0	3.5	4.4	4.2
JAMAICA	5.4	4.7	5.7	5.7	UNITED ARAB EMIRATES	7.2	6.7	7.8	7.0
JAPAN	7.6	7.6	7.0	8.2	UNITED KINGDOM	7.7	7.8	7.2	8.1
JORDAN	6.1	5.6	6.8	5.8	UNITED STATES	7.5	7.1	7.1	8.4
KAZAKHSTAN	4.4	4.4	5.6	3.2	URUGUAY	6.1	7.0	6.0	5.2
KENYA	4.4	3.0	6.0	4.2	VENEZUELA	3.4	2.3	4.4	3.5
KUWAIT	5.9	6.2	6.6	5.0	VIETNAM	4.9	4.8	6.1	3.8
LATVIA	5.5	5.9	5.8	4.8	ZAMBIA	4.8	4.9	5.8	3.6
LEBANON	4.4	3.3	6.5	3.3	ZIMBABWE	3.5	2.1	4.9	3.5
LIBYA	3.7	4.3	4.3	2.6					

Table 2: Top 10 by Component (Number Indicates Rank)

IPRI	LP	PPR	IPR
Finland (1)	Finland (1)	Finland (1)	Finland (1)
Sweden (1)	New Zealand (1)	Norway (1)	Sweden (1)
Singapore (3)	Sweden (1)	Singapore (1)	United States (3)
Luxembourg (4)	Denmark (4)	Sweden (4)	Denmark (4)
New Zealand (4)	Luxembourg (5)	Bahrain (5)	Luxembourg (4)
Norway (4)	Norway (5)	Hong Kong (6)	Singapore (4)
Switzerland (4)	Switzerland (5)	Luxembourg (6)	Switzerland (4)
Denmark (8)	Canada (8)	Saudi Arabia (6)	Japan (8)
Netherlands (9)	Netherlands (8)	Oman (9)	Netherlands (8)
Canada (9)	Australia (10)	Switzerland (9)	Austria (10)
Australia (9)	Iceland (10)	United Arab Emirates (9)	Canada (10)
	Singapore (10)		Germany (10)
			United Kingdom (10)

Table 3: Bottom 10 by Component (Number Indicates Rank)

IPRI	LP	PPR	IPR
Bolivia (120)	Ecuador (120)	Bosnia And Herzegovina (117)	Albania (118)
Moldova (120)	Kenya (120)	Chad (117)	Bosnia and Herzegovina (118)
Nigeria (120)	Nigeria (122)	Nicaragua (117)	Lebanon (118)
Cote D'Ivoire (123)	Paraguay (122)	Zimbabwe (117)	Azerbaijan (121)
Libya (123)	Pakistan (124)	Burundi (121)	Kazakhstan (121)
Angola (125)	Burundi (125)	Slovenia (122)	Serbia (121)
Bangladesh (125)	Chad (126)	Nigeria (123)	Angola (124)
Burundi (125)	Cote D'Ivoire (126)	Angola (124)	Bangladesh (125)
Zimbabwe (128)	Venezuela (128)	Bangladesh (124)	Libya (126)
Venezuela (129)	Zimbabwe (129)	Bolivia (124)	Armenia (127)
		Ukraine (127)	Georgia (128)
		Venezuela (127)	Moldova (128)
		Libya (129)	

Finland and Sweden tie for the top spot in this year's index with a score of 8.5 out of a possible 10. This is the fifth year in a row that Finland earned the highest ranking despite a decrease from last year's score of 8.6. Other Scandinavian countries that also perform well are Norway (8.2), tying for fourth place, and Denmark (8.1), tying for eighth place. Singapore (8.3) is the top-scoring country in the combined Asia and Oceania region followed closely by New Zealand (8.2) and Australia (8.0). Western Europe is well represented in the top 10 (see [Table 2](#)) with Luxembourg (8.2), Switzerland (8.2), and The Netherlands (8.0). Canada rounds out the top-scoring group with a score of 8.0.

At the bottom of the rankings are Bolivia (3.9), Moldova (3.9), Nigeria (3.9), Cote D'Ivoire (3.7), Libya (3.7), Angola (3.6), Burundi (3.6), and Bangladesh (3.6). Bangladesh shows solid improvement over last year's score of 2.9, allowing it to pass Zimbabwe (3.5) and Venezuela (3.4) – the two countries at the bottom of the rankings this year.

[Figure 3](#) presents the IPRI rankings by quintile. The color prism relates the quintiles to a specified color: purple for the top quintile, blue for the second quintile, green for the third, yellow for the fourth, and red for the bottom quintile. In this year's index, each quintile has 26 countries except for the bottom, which has only 25. Additionally, the map on the IPRI's distribution, displayed in the inside cover of this report, indicates which country belongs to which quintile.

Figure 3: IPRI Ranking by Quintile

	Top 20 percent	2nd Quintile	3rd Quintile	4th Quintile	Bottom 20 percent
strongest	FINLAND	MALTA	SLOVENIA	MEXICO	LEBANON
	SWEDEN	BAHRAIN	BRUNEI	SRI LANKA	NEPAL
	SINGAPORE	CHILE	GHANA	EL SALVADOR	ALGERIA
	LUXEMBOURG	ESTONIA	INDIA	PERU	MADAGASCAR
	NEW ZEALAND	OMAN	PANAMA	VIETNAM	ARMENIA
	NORWAY	SOUTH AFRICA	RWANDA	MALI	CAMEROON
	SWITZERLAND	CZECH REPUBLIC	TRINIDAD AND TOBAGO	SYRIA	IRAN
	DENMARK	PUERTO RICO	CHINA	ZAMBIA	SERBIA
	AUSTRALIA	SAUDI ARABIA	LATVIA	ARGENTINA	BOSNIA AND HERZEGOVINA
	CANADA	SPAIN	ROMANIA	HONDURAS	GEORGIA
	NETHERLANDS	HUNGARY	JAMAICA	MACEDONIA	NICARAGUA
	AUSTRIA	BOTSWANA	BENIN	MOZAMBIQUE	PAKISTAN
	GERMANY	ISRAEL	BRAZIL	PHILIPPINES	CHAD
	HONG KONG	MAURITIUS	BULGARIA	SENEGAL	PARAGUAY
	UNITED KINGDOM	SLOVAKIA	CROATIA	DOMINICAN REPUBLIC	UKRAINE
	IRELAND	SOUTH KOREA	MOROCCO	GUYANA	BOLIVIA
	JAPAN	POLAND	THAILAND	MAURITANIA	MOLDOVA
	BELGIUM	JORDAN	TURKEY	RUSSIA	NIGERIA
	UNITED STATES	MALAYSIA	EGYPT	UGANDA	COTE D'IVOIRE
	FRANCE	URUGUAY	MALAWI	ETHIOPIA	LIBYA
	ICELAND	ITALY	MONTENEGRO	GUATEMALA	ANGOLA
	UNITED ARAB EMIRATES	LITHUANIA	SWAZILAND	ALBANIA	BANGLADESH
	QATAR	TUNISIA	COLOMBIA	AZERBAIJAN	BURUNDI
	TAIWAN	COSTA RICA	TANZANIA	ECUADOR	ZIMBABWE
	CYPRUS	KUWAIT	BURKINA FASO	KAZAKHSTAN	VENEZUELA
weakest	PORTUGAL	GREECE	INDONESIA	KENYA	

Table 4: Summary Statistics

Indicator	Mean	Median	Deviation	Minimum	Maximum
IPRI	5.6	5.3	1.4	3.4	8.5
LP	5.3	4.9	1.8	2.1	8.8
PPR	6.2	6.1	1.0	4.3	8.3
IPR	5.4	5.1	1.6	2.3	8.5

Table 4 presents summary statistics for the 2011 IPRI and its component scores. This year's index finds a one point increase in both the mean and median scores. While these are largely the result of improvement by low scoring countries (the lowest country score jumped from 2.9 to 3.4) the effect is somewhat offset by slightly deteriorating scores at the top. This converging of scores across the data set can be seen in the deviation, which shows a slight decrease from 1.5 to 1.4.

This year's highest score in any one of the core components is 8.8 in Legal and Political Environment (LP) achieved by Finland, New Zealand, and Sweden. The lowest score in any of the core components is Zimbabwe's LP score of 2.1, which is still a notable improvement over last year's lowest component score, a 1.6 LP for Chad. Physical Property Rights (PPR) again has the highest component mean at 6.2.

Ranking by Index Core Components

This index is comprised of three core components that can be used independently to assess a country's performance. This section presents and discusses countries' performance in each core component of the index.

Table 2 and Table 3 show the top 10 and bottom 10 countries for each of the IPRI's components. The top 10 lists, generally, are more homogenous than the bottom 10 with Finland ranking first in all three components. Luxembourg, Sweden, and Switzerland also place in the top 10 in all three components. Interestingly, two countries (the United States in Intellectual Property Rights (IPR) and Bahrain in PPR) make the top five list for a component score but do not make the top 10 IPRI.

The bottom 10 lists are much more heterogeneous with no country making it on all three. Zimbabwe ranks the lowest in the LP component, Libya in the PPR component, and Moldova in the IPR component.

Figures 4–6 provide a complete rank ordering of the entire 125 country set, according to the three core components of the IPRI.

Changes in Scores (2010–2011)

A direct comparison of the ordinal rankings between 2010 and 2011 is hindered by the fact that five additional countries (Angola, Iran, Lebanon, Rwanda, and Swaziland) are included in this year's rankings, while the Kyrgyz Republic is not included because of a lack of data. As a result, some changes in the rankings could reflect changes in the composition of countries indexed instead of the countries' performance compared with last year. A comparison of results between 2009 and 2010 is found in Tables 5–8, which present the changes in scores for the IPRI as well as their components.

The countries that demonstrate the most improvement in their IPRI score over the last year are a diverse group. These include Brunei, Benin, Indonesia, Uganda, Algeria, Burkina Faso, Ethiopia, Senegal, Mauritius, and Ecuador. Unfortunately, the following countries show a decrease in their property rights performance: Iceland, Ireland, South Korea, Denmark, The Netherlands, United States, Lithuania, Latvia, United Kingdom, and New Zealand. Those countries that are experiencing the largest setbacks in property rights tend to be among the wealthiest.