Fraser Institute Annual

SURVEY OF MINING COMPANIES 2017

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Table of Contents

Survey Information

The Fraser Institute Annual Survey of Mining Companies was sent to approximately 2,700 exploration, development, and other mining-related companies around the world. The survey was conducted from August 22nd to November 10th, 2017. The companies that participated in the survey reported exploration spending of US$2.3 billion in 2017 and US$1.9 billion in 2016.

Executive Summary
2017 Mining Survey

This report presents the results of the Fraser Institute's 2017 annual survey of mining and exploration companies. The survey is an attempt to assess how mineral endowments and public policy factors such as taxation and regulatory uncertainty affect exploration investment. The survey was circulated electronically to approximately 2,700 individuals between August 22nd and November 10th, 2017. Survey responses have been tallied to rank provinces, states, and countries according to the extent that public policy factors encourage or discourage mining investment.

We received a total of 360 responses for the survey, providing sufficient data to evaluate 91 jurisdictions. By way of comparison, 104 jurisdictions were evaluated in 2016, 109 in 2015, 122 in 2014, and 112 in 2013. The number of jurisdictions that can be included in the study tends to wax and wane as the mining sector grows or shrinks due to commodity prices and sectoral factors.

The Investment Attractiveness Index takes both mineral and policy perception into consideration

An overall Investment Attractiveness Index is constructed by combining the Best Practices Mineral Potential index, which rates regions based on their geologic attractiveness, and the Policy Perception Index, a composite index that measures the effects of government policy on attitudes toward exploration investment. While it is useful to measure the attractiveness of a jurisdiction based on policy factors such as onerous regulations, taxation levels, the quality of infrastructure, and the other policy related questions that respondents answered, the Policy Perception Index alone does not recognize the fact that investment decisions are often sizably based on the pure mineral potential of a jurisdiction. Indeed, as discussed below, respondents consistently indicate that approximately 40 percent of their investment decision is determined by policy factors.

The top

The top jurisdiction in the world for investment based on the Investment Attractiveness Index is Finland, which moved up from 5th place in 2016. Saskatchewan experienced a slight drop in its score

in 2017 so dropped into second place after ranking first in the previous year. Nevada moved up from 4th in 2016 to 3rd in 2017. The Republic of Ireland ranked 4th this year, and Western Australia dropped from 3rd in 2016 to 5th in 2017. Rounding out the top 10 are Quebec, Ontario, Chile, Arizona, and Alaska.

The bottom

When considering both policy and mineral potential in the Investment Attractiveness Index, Guatemala ranks as the least attractive jurisdiction in the world for investment. This year, Guatemala replaced the Argentinian province of Jujuy as the least attractive jurisdiction in the world. Also in the bottom 10 (beginning with the worst) are Kenya, Mendoza, Chubut, Mozambique, Bolivia, Venezuela, Romania, China, and Nicaragua.

Policy Perception Index: A "report card" to governments on the attractiveness of their mining policies

While geologic and economic considerations are important factors in mineral exploration, a region's policy climate is also an important investment consideration. The Policy Perception Index (PPI), is a composite index that measures the overall policy attractiveness of the 91 jurisdictions in the survey. The index is composed of survey responses to policy factors that affect investment decisions. Policy factors examined include uncertainty concerning the administration of current regulations, environmental regulations, regulatory duplication, the legal system and taxation regime, uncertainty concerning protected areas and disputed land claims, infrastructure, socioeconomic and community development conditions, trade barriers, political stability, labor regulations, quality of the geological database, security, and labor and skills availability.

The top

For the fifth year in a row, the Republic of Ireland had the highest PPI score of 100. Ireland was followed by Finland in second, which moved up from 4th in the previous year. Along with Ireland and Finland the top 10 ranked jurisdictions are Saskatchewan, Sweden, Nevada, Northern Ireland, Michigan, Wyoming, Quebec, and Newfoundland and Labrador.

The bottom

The 10 least attractive jurisdictions for investment based on the PPI rankings are (starting with the worst) Venezuela, Chubut, Zimbabwe, Guatemala, Democratic Republic of Congo (DRC), China, Philippines, Indonesia, Bolivia, and Ecuador. Venezuela, Chubut, Zimbabwe, Philippines, Indonesia, and Ecuador were all in the bottom 10 jurisdictions last year.

Survey Methodology

Survey background

The mining industry is an important contributor both to Canada's economy and to economies around the world. It provides not only materials essential for all sectors of the economy, but also employment and government revenues. Mining contributes to economic growth worldwide and Canadian mining companies operate in jurisdictions around the world. While mineral potential is obviously a very important consideration in encouraging or dissuading mining investment, the impact of government policies can also be significant in encouraging or discouraging investment in this important area of economic activity. Moreover, many regions around the world have attractive geology and competitive policies, allowing exploration investment to be shifted away from jurisdictions with unattractive policies.

Since 1997, the Fraser Institute has conducted an annual survey of mining and exploration companies to assess how mineral endowments and public policy factors such as taxation and regulation affect exploration investment. Our purpose is to create a "report card" that governments can use to improve their mining-related public policy in order to attract investment in their mining sector to better their economic productivity and employment. Others in the mining sector, investment sector, academia, and the media also may find the survey useful for evaluating potential investment decisions, or for assessing various risk factors in jurisdictions of interest.[1]

This year the survey includes 91 jurisdictions from all continents except Antarctica. The 2017 questionnaire included a number of jurisdictions that had insufficient responses to enable them to be included in the report. The minimum threshold for inclusion this year was five responses. Jurisdictions with between 5 and 9 responses were included, but have been noted accordingly. Any jurisdiction with fewer than 5 responses was dropped. This year's dropped jurisdictions include Afghanistan, Albania, Angola, Argentina: Rio Negro, Armenia, Belarus, Bulgaria, Burundi, Cambodia, Central African Republic, Egypt, Eritrea, Estonia, France, Gabon, Greece, Guinea (Conakry), Honduras, Hungary, India, Iraq, Israel, Jordan, Kyrgyzstan, Laos, Lesotho, Liberia, Madagascar,

1 While we would prefer to directly measure the impacts of specific mining policy changes on investment in the sector, there are many barriers to doing so. The effects of policy on deterring exploration investment may not be immediately apparent due to the lag time between when policy changes are implemented and when economic activity is impeded and job losses occur.

Malawi, Malaysia, Mauritania, Myanmar, New Caledonia, Niger, Nigeria, Oman, Pakistan, Poland, Republic of the Congo (Brazzaville), Saudi Arabia, Senegal, Sierra Leone, Slovakia, Solomon Islands, South Sudan, Sudan, Swaziland, Tajikistan, Thailand, Tunisia, Uganda, Uruguay, and Vietnam.

Jurisdictions are added to the survey based on interest from survey respondents, and their inclusion fluctuates based on a variety of factors such as industry turnover, industry downturns, and the movement of mining investment into jurisdictions seen as more attractive. This survey is published annually and the results are available and accessible to an increasingly global audience. In the past, detailed tables were included in an appendix showing the breakdown of scores on each question for each individual jurisdiction. Those tables are now available online at https://www.fraserinstitute.org/categories/mining.

The Fraser Institute's mining survey is an informal survey that attempts to assess the perceptions of mining company executives about various optimal and sub-optimal public policies that might affect the hospitality of a jurisdiction to mining investment. Given the survey's very broad circulation, its extensive press coverage, and the positive feedback we receive from miners, investors, and policymakers about its usefulness, we believe that the survey broadly captures the perceptions of those involved in both mining and the regulation of mining for the jurisdictions included.

Sample design

The survey is designed to identify the provinces, states, and countries that have the most attractive policies for encouraging investment in mining exploration. Jurisdictions that investors assess as relatively unattractive may therefore be prompted to consider reforms that would improve their ranking. Presumably mining companies use the information provided to corroborate their own assessments and to identify jurisdictions where the business conditions and regulatory environment are most attractive for investment. The survey results are also a useful source of information for the media, providing independent information as to how particular jurisdictions compare.

The 2017 survey was distributed to approximately 2,700 managers and executives around the world in companies involved in mining exploration, development, and other related activities. The names of potential respondents were compiled from commercially available lists, publicly available membership lists of trade associations, and other sources. Several mining associations also helped publicize the survey.

The survey was conducted from August 22nd to November 10th, 2017. We received a total of 360 responses from individuals, of whom 318 completed the full survey and 42 completed part of the survey. As figure 1 illustrates, over half of the respondents (55 percent) are either the company president or vice-president, and a further 25 percent are either managers or senior managers. The companies that participated in the survey reported exploration spending of US$2.3 billion in 2017

Figure 1: The Position Survey Respondents Hold in Their Company, 2017

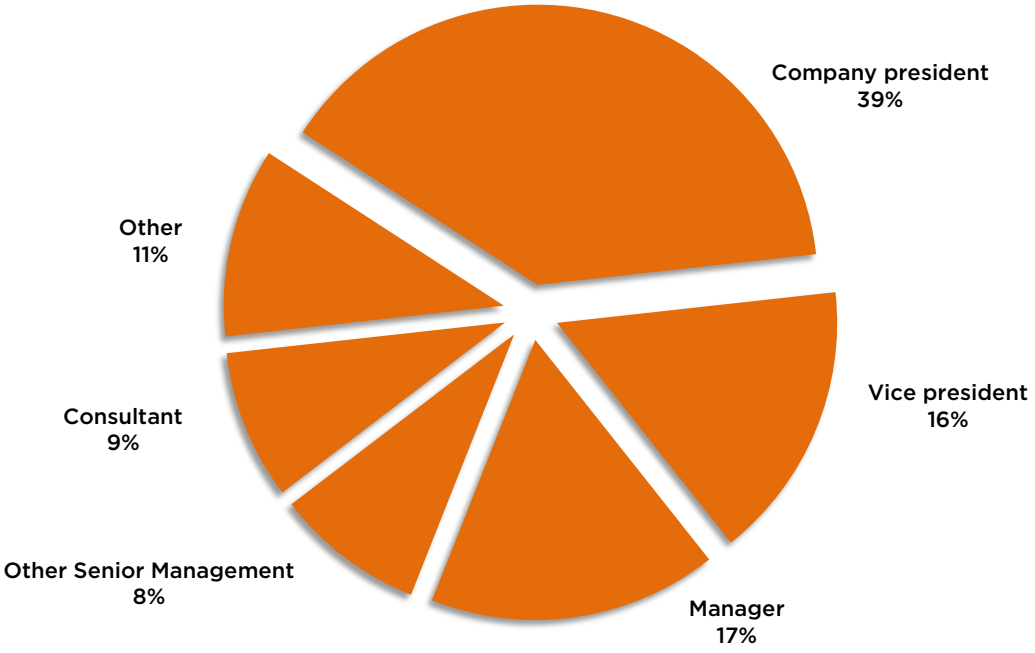
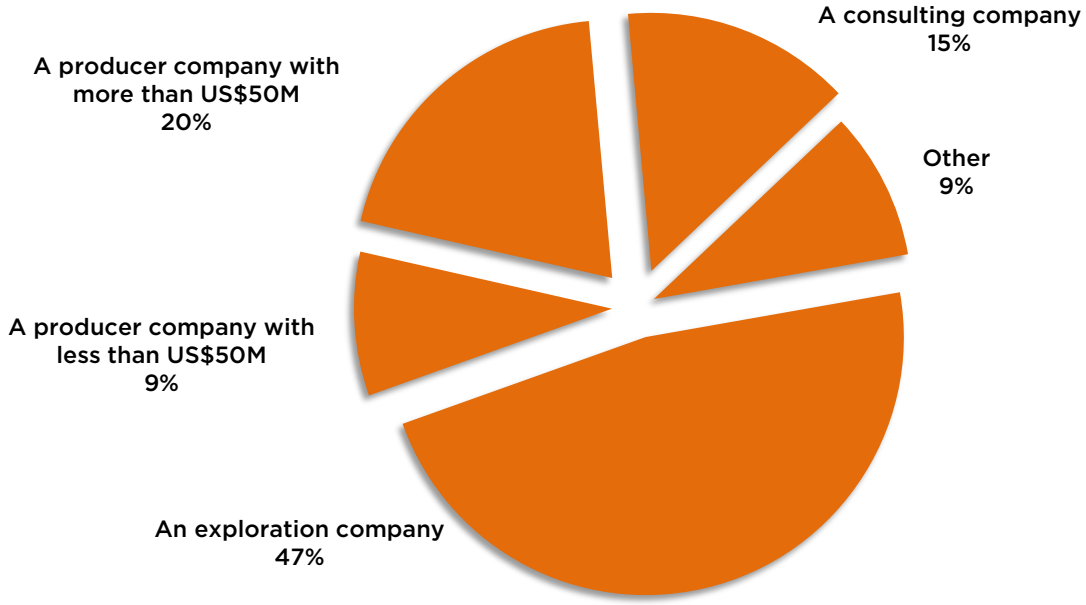


Figure 2: Company Focus as Indicated by Respondents, 2017



and US$1.9 billion in 2016. This represents a decrease from the 2016 *Survey of Mining Companies,* which reported exploration spending of US$2.7 billion in 2016 and US$3.2 billion in 2015, and is likely due to persistently low commodity prices and ongoing challenges in attracting investment to the sector.

Figure 2 shows that just under half of the 2017 survey respondents represent an exploration company. Twenty-nine percent of the respondents represent producer companies, and the final 24 percent is made up of consulting and other companies.

Survey questionnaire

The survey is designed to capture the opinions of managers and executives about the level of investment barriers in jurisdictions with which their companies are familiar. Respondents are asked to indicate how each of the 15 policy factors below influenced company decisions to invest in various jurisdictions.

1. Uncertainty concerning the administration, interpretation, or enforcement of existing regulations;
2. Uncertainty concerning environmental regulations (stability of regulations, consistency and timeliness of regulatory process , regulations not based on science);
3. Regulatory duplication and inconsistencies (includes federal/provincial, federal/state, inter-departmental overlap, etc.);
4. Legal system (legal processes that are fair, transparent, non-corrupt, timely, efficiently administered, etc.)
5. Taxation regime (includes personal, corporate, payroll, capital, and other taxes, and complexity of tax compliance);
6. Uncertainty concerning disputed land claims;
7. Uncertainty concerning what areas will be protected as wilderness, parks, or archeological sites, etc.;
8. Infrastructure (includes access to roads, power availability, etc.);
9. Socioeconomic agreements/community development conditions (includes local purchasing or processing requirements, or supplying social infrastructure such as schools or hospitals, etc.);
10. Trade barriers (tariff and non-tariff barriers, restrictions on profit repatriation, currency restrictions, etc.);
11. Political stability;

12 Labor regulations/employment agreements and labor militancy/work disruptions;

13 Quality of the geological database (includes quality and scale of maps, ease of access to information, etc.);

14 Level of security (includes physical security due to the threat of attack by terrorists, criminals, guerrilla groups, etc.);

15 Availability of labor/skills.

Respondents were asked to score only jurisdictions with which they were familiar and only on those policy factors with which they were familiar. The 15 policy questions were unchanged from the 2013 survey. However, two questions that had been included—on the level of corruption (or honesty) and on growing (or lessening) uncertainty in mining policy and implementation—were dropped in 2013 in response to complaints from previous years' respondents that the survey had become onerously lengthy. Also, those questions were seen to be redundant, or overlap heavily with other questions. For each of the 15 factors, respondents were asked to select one of the following five responses that best described each jurisdiction with which they were familiar:

1 Encourages exploration investment

2 Not a deterrent to exploration investment

3 Is a mild deterrent to exploration investment

4 Is a strong deterrent to exploration investment

5 Would not pursue exploration investment in this region due to this factor

The survey also included questions about the respondents and the type of company they represented, regulatory "horror stories," examples of "exemplary policy," mineral potential assuming current regulation and land use restrictions, mineral potential assuming a "best practices" regulatory environment, the weighting of mineral versus policy factors in investment decisions, and investment spending.

Summary Indicies

Investment Attractiveness Index

The Investment Attractiveness Index (table 1and figure 3) is a composite index that combines both the Policy Perception Index (PPI) and results from the Best Practices Mineral Potential Index.[2] While it is useful to measure the attractiveness of a jurisdiction based on policy factors such as onerous regulations, taxation levels, the quality of infrastructure, and the other policy related questions that respondents answered, the Policy Perception Index alone does not recognize the fact that investment decisions are often sizably based on the pure mineral potential of a jurisdiction. Indeed, as will be discussed below, respondents consistently indicate that while 40 percent of their investment decision is determined by policy factors, 60 percent is based on their assessment of a jurisdiction's mineral potential. To get a true sense of which global jurisdictions are attracting investment, both mineral potential and policy perception must be considered.

This year, as in other years, the index was weighted 40 percent by policy and 60 percent by mineral potential. These ratios are determined from a survey question that asks respondents to rate the relative importance of each factor. In most years, the split is nearly exactly 60 percent mineral and 40 percent policy. This year, the answer was 58.06 percent mineral potential and 41.94 percent policy. We maintain a 60/40 ratio in calculating this index to allow comparability with other years.

The PPI (table 2 and figure 4) provides the data on policy perception of (see below for explanation on how the index is calculated), while the rankings from the Best Practices Mineral Index (table 3 and figure 5), based on the percentage of responses for "Encourages Investment" and a half-weighting of the responses for "Not a Deterrent to Investment," provides the data on mineral potential. Table 1 details the relative trends observed over the last five years for the performance of each of the jurisdictions on the Investment Attractiveness Index.

One limitation of this index is that it may not provide an accurate measure of the investment attractiveness of a jurisdiction at extremes, or where the 60/40 weighting is unlikely to be stable. For example, extremely bad policy that would virtually confiscate all potential profits, or an environment that would expose workers and managers to high personal risk, would discourage mining activity

2 A best practice environment is one which contains a world class regulatory environment, highly competitive taxation, no political risk or uncertainty, and a fully stable mining regime.

Figure 3: Investment Attractiveness Index

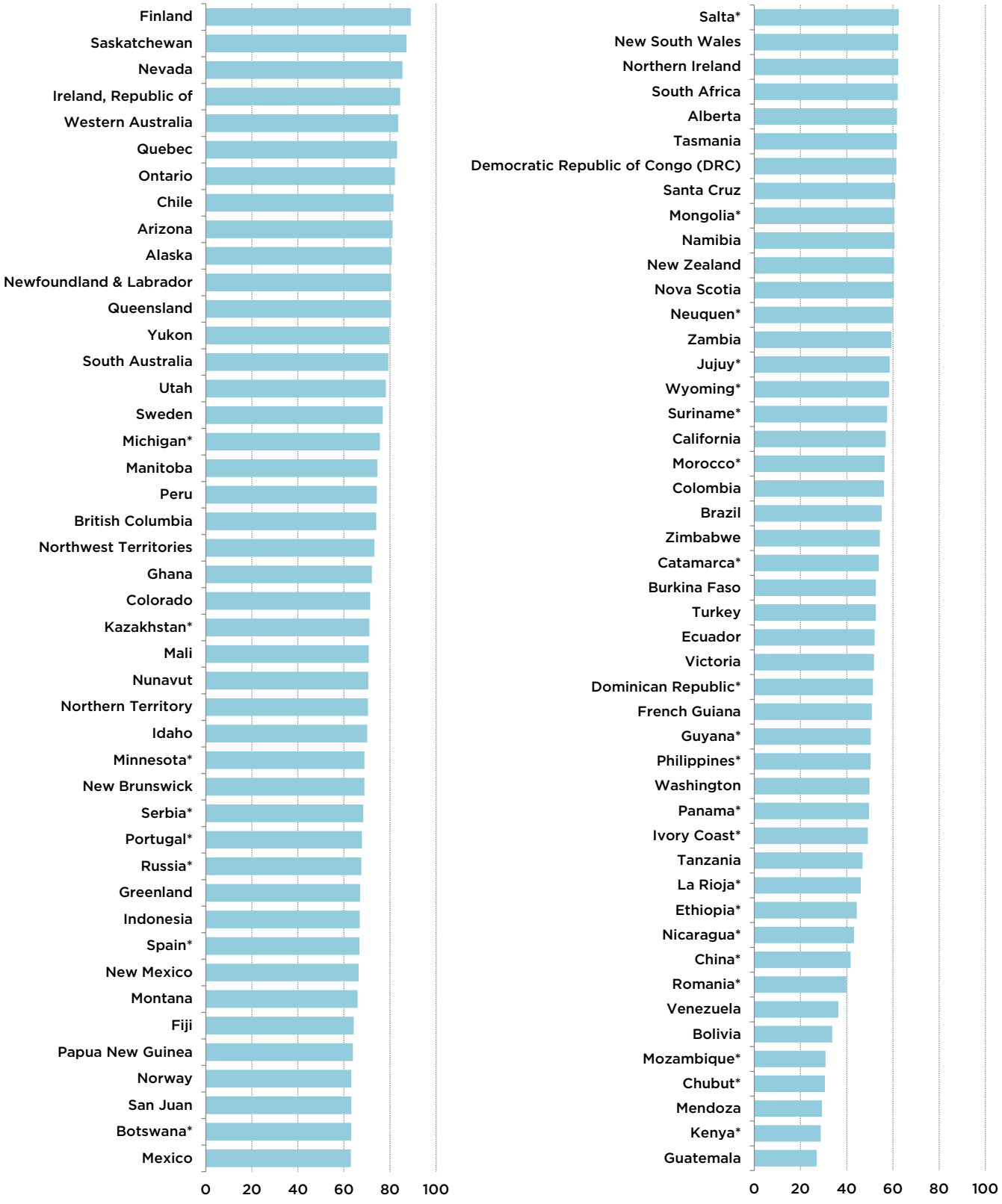


Table 1: Investment Attractiveness Index

		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Canada	Alberta	61.77	68.55	69.71	74.78	78.49	49/91	47/104	34/109	28/122	14/112
	British Columbia	74.01	74.15	75.71	74.27	79.02	20/91	27/104	18/109	29/122	13/112
	Manitoba	74.50	89.05	75.27	84.14	79.90	18/91	2/104	19/109	5/122	12/112
	New Brunswick	68.87	69.45	66.51	77.34	74.38	30/91	40/104	45/109	19/122	26/112
	Newfoundland & Labrador	80.58	78.94	73.55	83.27	83.93	11/91	16/104	25/109	8/122	3 /112
	Northwest Territories	73.20	75.77	69.48	79.73	76.32	21/91	21/104	35/109	15/122	21/112
	Nova Scotia	60.41	66.80	59.51	66.27	65.25	56/91	52/104	59/109	49/122	46/112
	Nunavut	70.58	72.52	74.37	73.23	75.12	26/91	31/104	23/109	34/122	25/112
	Ontario	82.15	78.65	78.02	76.05	78.13	7/91	18/104	15/109	23/122	16/112
	Quebec	83.08	85.02	80.80	81.51	75.21	6/91	6/104	8/109	10/122	24/112
	Saskatchewan	87.18	89.91	85.73	86.27	82.36	2/91	1/104	2/109	2/122	6/112
	Yukon	79.67	79.61	79.16	83.68	81.39	13/91	15/104	12/109	6/122	8/112
United States	Alaska	80.74	80.27	83.96	81.28	82.38	10/91	14/104	6/109	12/122	5/112
	Arizona	81.11	84.91	76.33	80.59	77.42	9/91	7/104	17/109	13/122	17/112
	California	56.84	67.81	59.26	61.95	58.09	62/91	49/104	61/109	57/122	66/112
	Colorado	71.38	68.85	72.28	71.43	65.75	23/91	46/104	28/109	39/122	43/112
	Idaho	70.12	81.34	64.44	81.33	73.44	28/91	12/104	50/109	11/122	27/112
	Michigan*	75.67	74.38	73.10	72.44	71.89	17/91	25/104	27/109	37/122	29/112
	Minnesota*	68.89	74.18	74.46	76.69	66.84	29/91	26/104	21/109	20/122	39/112
	Montana	65.90	71.16	68.27	73.25	68.23	38/91	35/104	40/109	33/122	37/112
	Nevada	85.45	87.48	85.39	88.38	87.47	3/91	4/104	3/109	1/122	1/112
	New Mexico	66.38	75.03	60.95	72.50	64.90	37/91	24/104	58/109	36/122	48/112
	Utah	78.19	81.39	80.31	79.68	80.22	15/91	11/104	9/109	18/122	11/112
	Washington	49.88	48.58	66.13	55.57	56.35	76/91	84/104	46/109	79/122	70/112
	Wyoming*	58.35	75.26	78.07	83.54	78.35	60/91	23/104	14/109	7/122	15/112
Australia	New South Wales	62.31	61.84	68.83	62.40	68.57	46/91	62/104	38/109	55/122	36/112
	Northern Territory	70.47	77.61	81.90	73.89	76.49	27/91	20/104	7/109	31/122	19/112
	Queensland	80.53	81.40	77.79	76.24	76.33	12/91	10/104	16/109	22/122	20/112
	South Australia	79.30	81.03	79.83	79.71	75.97	14/91	13/104	10/109	16/122	23/112
	Tasmania	61.69	64.27	71.34	66.43	65.71	50/91	56/104	30/109	46/122	44/112
	Victoria	51.82	63.96	59.16	58.04	63.87	71/91	57/104	62/109	69/122	51/112
	Western Australia	83.56	88.88	87.35	84.33	86.88	5/91	3/104	1/109	4/122	2/112
Oceania	Fiji	64.23	69.43	53.87	65.70	49.69	39/91	41/104	79/109	50/122	87/112
	Indonesia	66.84	50.16	65.16	55.24	58.01	35/91	78/104	49/109	81/122	67/112
	New Zealand	60.51	57.47	66.73	66.38	65.85	55/91	67/104	44/109	48/122	41/112
	Papua New Guinea	63.91	63.48	67.15	61.92	63.64	40/91	59/104	43/109	58/122	52/112
	Philippines*	50.32	58.97	56.59	48.78	64.54	75/91	66/104	72/109	95/122	49/112

Table 1 continued

		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Africa	Botswana*	63.14	77.62	68.32	75.10	76.21	43/91	19/104	39/109	27/122	22/112
	Burkina Faso	52.64	68.18	71.88	63.80	65.16	68/91	48/104	29/109	53/122	47/112
	Democratic Republic of Congo (DRC)	61.51	72.80	59.37	58.38	54.86	51/91	29/104	60/109	67/122	75/112
	Ethiopia*	44.35	57.32	64.11	50.76	55.05	81/91	68/104	51/109	89/122	74/112
	Ghana	72.13	75.56	71.27	67.17	71.30	22/91	22/104	31/109	44/122	30/112
	Ivory Coast*	49.14	78.93	67.99	62.35	59.09	78/91	17/104	42/109	56/122	61/112
	Kenya*	28.74	46.71	38.43	35.24	56.16	90/91	86/104	102/109	120/122	71/112
	Mali	70.74	69.32	50.84	64.70	54.68	25/91	42/104	83/109	51/122	76/112
	Morocco*	56.35	**	73.71	74.25	**	63/91	**	24/109	30/122	**
	Mozambique*	30.78	41.87	50.69	55.91	44.72	87/91	95/104	84/109	75/122	96/112
	Namibia	60.67	66.11	69.78	76.37	68.97	54/91	53/104	33/109	21/122	35/112
	South Africa	62.06	53.62	58.04	56.49	61.50	48/91	74/104	66/109	74/122	57/112
	Tanzania	46.79	60.45	57.46	63.82	58.40	79/91	64/104	69/109	52/122	65/112
	Zambia	59.34	72.78	57.48	75.71	70.30	58/91	30/104	68/109	25/122	33/112
	Zimbabwe	54.32	41.84	41.45	39.07	36.04	66/91	96/104	98/109	112/122	109/112
Argentina	Catamarca*	53.91	50.38	42.29	69.14	43.57	67/91	77/104	96/109	41/122	99/112
	Chubut*	30.54	31.47	37.75	49.94	43.40	88/91	101/104	104/109	92/122	100/112
	Jujuy*	58.57	24.83	49.57	58.92	46.94	59/91	104/104	86/109	65/122	92/112
	La Rioja*	46.06	33.94	28.86	41.96	38.92	80/91	99/104	109/109	107/122	106/112
	Mendoza	29.29	35.51	38.51	38.09	44.50	89/91	98/104	101/109	114/122	97/112
	Neuquen*	60.00	26.13	45.17	52.02	43.28	57/91	103/104	93/109	86/122	101/112
	Salta*	62.51	69.25	56.69	73.71	63.02	45/91	43/104	71/109	32/122	55/112
	San Juan	63.21	63.69	54.97	72.78	58.57	42/91	58/104	75/109	35/122	64/112
	Santa Cruz	60.98	54.80	42.59	55.81	53.94	52/91	72/104	95/109	77/122	77/112
Latin America and the Caribbean Basin	Bolivia	33.68	48.74	44.56	44.74	42.87	86/91	83/104	94/109	99/122	102/112
	Brazil	55.12	62.51	61.45	69.27	65.63	65/91	61/104	56/109	40/122	45/112
	Chile	81.51	69.66	79.81	81.86	82.54	8/91	39/104	11/109	9/122	4/112
	Colombia	56.10	59.52	62.75	61.29	58.61	64/91	65/104	55/109	61/122	63/112
	Dominican Republic*	51.33	42.82	52.89	50.40	51.50	72/91	92/104	81/109	91/122	85/112
	Ecuador	52.09	50.38	45.36	46.94	40.02	70/91	76/104	92/109	97/122	105/112
	French Guiana	50.84	66.86	46.67	53.51	41.80	73/91	51/104	89/109	83/122	103/112
	Guatemala	26.96	46.24	41.77	38.32	47.48	91/91	88/104	97/109	113/122	90/112
	Guyana*	50.42	68.97	50.91	66.38	55.79	74/91	45/104	82/109	47/122	72/112
	Mexico	63.03	67.06	68.93	75.96	71.05	44/91	50/104	37/109	24/122	31/112

Table 1 continued

		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Latin America and the Caribbean Basin *(cont.)*	Nicaragua*	43.10	55.02	58.38	63.28	50.32	82/91	71/104	65/109	54/122	86/112
	Panama*	49.66	45.20	55.09	61.13	59.99	77/91	90/104	74/109	62/122	59/112
	Peru	74.26	73.47	69.26	75.35	69.85	19/91	28/104	36/109	26/122	34/112
	Suriname*	57.43	**	**	57.26	45.78	61/91	**	**	71/122	93/112
	Venezuela	36.43	27.86	31.88	31.80	24.27	85/91	102/104	108/109	122/122	112/112
Asia	China	41.65	65.13	58.49	48.89	58.69	83/91	54/104	64/109	94/122	62/112
	Kazakhstan*	71.03	54.08	74.66	50.84	63.45	24/91	73/104	20/109	88/122	53/112
	Mongolia*	60.69	49.42	50.03	49.22	53.25	53/91	81/104	85/109	93/122	80/112
Europe	Finland	89.04	85.56	84.00	85.70	81.23	1/91	5/104	5/109	3/122	10/112
	Greenland	66.97	64.63	73.43	68.58	81.72	34/91	55/104	26/109	42/122	7/112
	Ireland, Republic of	84.40	83.13	85.00	80.20	76.57	4/91	9/104	4/109	14/122	18/112
	Northern Ireland	62.29	72.41	**	**	**	47/91	32/104	**	**	**
	Norway	63.24	70.59	70.68	67.99	70.53	41/91	37/104	32/109	43/122	32/112
	Portugal*	67.80	70.86	74.40	71.51	62.84	32/91	36/104	22/109	38/122	56/112
	Romania*	39.91	56.57	57.76	43.98	43.58	84/91	69/104	67/109	101/122	98/112
	Russia*	67.51	69.02	65.86	60.14	52.35	33/91	44/104	47/109	64/122	83/112
	Serbia*	68.34	62.54	63.20	58.74	63.21	31/91	60/104	53/109	66/122	54/112
	Spain*	66.69	70.39	65.41	56.75	67.01	36/91	38/104	48/109	72/122	38/112
	Sweden	76.88	84.26	78.58	79.70	81.29	16/91	8/104	13/109	17/122	9/112
	Turkey	52.60	60.67	64.04	56.71	72.77	69/91	63/104	52/109	73/122	28/112

Notes:

* Between 5 and 9 responses

** Not Available

regardless of mineral potential. In this case, mineral potential—far from having a 60 percent weight—might carry very little weight. There is also an issue when poor policies lead to a reduction in the knowledge of mineral potential, thereby affecting the responses of potential investors.

Policy Perception Index (PPI): An assessment of the attractiveness of mining policies

While geologic and economic evaluations are always requirements for exploration, in today's globally competitive economy where mining companies may be examining properties located on different continents, a region's policy climate has taken on increased importance in attracting and winning investment. The Policy Perception Index, or PPI (see table 2 and figure 4), provides a comprehensive assessment of the attractiveness of mining policies in a jurisdiction, and can serve as a report card to governments on how attractive their policies are from the point of view of an exploration manager. In previous survey years, we have referred to this index as the Policy Potential Index. However, we feel that Policy Perception Index more accurately reflects the nature of this index.

The Policy Perception Index is a composite index that captures the opinions of managers and executives on the effects of policies in jurisdictions with which they are familiar. All survey policy questions (i.e., uncertainty concerning the administration, interpretation, and enforcement of existing regulations; environmental regulations; regulatory duplication and inconsistencies; taxation; uncertainty concerning disputed land claims and protected areas; infrastructure; socioeconomic agreements; political stability; labor issues; geological database; and security) are included in its calculation.

This year we continued the use of the methodology first used to calculate the PPI in 2015. The methodology differs from that of previous years in that it considers answers in all five response categories,[3] as well as how far a jurisdiction's score is from the average. To calculate the PPI, a score for each jurisdiction is estimated for all 15 policy factors by calculating each jurisdiction's average response. This score is then standardized using a common technique, where the average response is subtracted from each jurisdiction's score on each of the policy factors and then divided by the standard deviation. A jurisdiction's scores on each of the 15 policy variables are then added up to generate a final, standardized PPI score. That score is then normalized using the formula $\frac{Vmax - Vi}{Vmax - Vmin} \; x \; 100$

The jurisdiction with the most attractive policies receives a score of 100 and the jurisdiction with the policies that pose the greatest barriers to investment receives a score of 0.

3 The methodology used previously only considered responses in the "encourages investment" category..

Table 2: Policy Perception Index

		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Canada	Alberta	84.42	83.89	92.24	93.95	97.15	16/91	28/104	7/109	7/122	3 /112
	British Columbia	73.80	76.57	75.28	70.18	78.07	36/91	41/104	41/109	54/122	42/112
	Manitoba	78.76	96.62	88.90	88.84	82.89	27/91	6/104	13/109	15/122	26/112
	New Brunswick	86.47	94.21	91.27	95.85	96.93	13/91	8/104	9/109	3/122	5/112
	Newfoundland & Labrador	87.46	89.01	88.24	94.17	92.75	10/91	18/104	15/109	6/122	9/112
	Northwest Territories	69.37	72.77	64.46	73.33	74.03	42/91	48/104	58/109	47/122	47/112
	Nova Scotia	82.28	91.99	87.85	93.68	88.20	24/91	11/104	17/109	8/122	16/112
	Nunavut	67.58	68.80	68.85	72.07	75.90	44/91	58/104	54/109	51/122	46/112
	Ontario	82.96	84.69	79.48	76.12	79.30	20/91	26/104	31/109	36/122	33/112
	Quebec	87.47	89.82	85.02	83.78	78.37	9/91	17/104	22/109	20/122	39/112
	Saskatchewan	91.81	98.87	95.10	95.67	92.43	3/91	2/104	4/109	5/122	10/112
	Yukon	82.69	84.81	76.66	78.70	85.13	22/91	25/104	39/109	32/122	24/112
United States	Alaska	76.85	85.42	84.89	75.70	80.99	29/91	23/104	23/109	38/122	29/112
	Arizona	85.28	90.64	87.88	84.48	88.78	14/91	14/104	16/109	18/122	14/112
	California	59.61	57.04	63.48	60.36	62.57	61/91	74/104	59/109	73/122	68/112
	Colorado	74.87	73.02	78.06	79.57	78.20	35/91	47/104	36/109	29/122	41/112
	Idaho	84.52	90.86	86.10	83.32	85.64	15/91	13/104	19/109	21/122	22/112
	Michigan*	89.18	90.49	87.75	80.60	86.57	7/91	15/104	18/109	27/122	18/112
	Minnesota*	76.77	78.31	82.30	80.72	87.67	30/91	37/104	28/109	26/122	17/112
	Montana	66.06	71.16	77.58	73.63	78.78	47/91	52/104	37/109	46/122	36/112
	Nevada	90.50	97.64	94.07	91.95	95.97	5/91	5/104	6/109	10/122	7/112
	New Mexico	82.61	81.89	77.37	79.25	79.37	23/91	30/104	38/109	31/122	32/112
	Utah	86.73	88.09	89.47	88.20	90.08	12/91	20/104	11/109	16/122	11/112
	Washington	69.71	63.13	75.32	62.43	69.48	41/91	67/104	40/109	70/122	54/112
	Wyoming*	87.55	94.40	97.09	93.35	96.95	8/91	7/104	2/109	9/122	4/112
Australia	New South Wales	63.21	63.91	69.12	75.01	78.49	53/91	66/104	51/109	41/122	37/112
	Northern Territory	75.31	85.70	85.15	82.72	86.22	33/91	22/104	21/109	23/122	20/112
	Queensland	75.78	78.50	79.19	78.10	81.40	31/91	36/104	32/109	33/122	28/112
	South Australia	80.39	87.05	85.50	86.78	88.30	26/91	21/104	20/109	17/122	15/112
	Tasmania	75.65	81.51	78.34	73.08	78.99	32/91	32/104	34/109	49/122	34/112
	Victoria	63.93	73.80	72.91	76.09	79.64	52/91	42/104	43/109	37/122	31/112
	Western Australia	83.51	93.20	91.53	90.83	94.19	17/91	9/104	8/109	12/122	8/112
Oceania	Fiji*	73.07	73.57	69.06	71.26	64.22	37/91	44/104	53/109	53/122	63/112
	Indonesia	39.92	29.93	40.41	34.60	35.90	84/91	99/104	91/109	110/122	106/112
	New Zealand	64.43	77.51	79.83	77.45	83.26	50/91	39/104	30/109	35/122	25/112
	Papua New Guinea	47.27	47.99	51.96	49.81	43.37	77/91	83/104	77/109	93/122	96/112
	Philippines*	38.29	28.68	41.48	33.46	42.41	85/91	100/104	89/109	113/122	99/112

Table 2 continued

		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Africa	Botswana*	82.84	91.79	88.29	90.26	89.05	21/91	12/104	14/109	14/122	12/112
	Burkina Faso	62.84	72.37	71.90	75.50	78.22	55/91	51/104	44/109	39/122	40/112
	Democratic Republic of Congo (DRC)	35.03	60.58	42.74	40.95	33.43	87/91	70/104	87/109	105/122	107/112
	Ethiopia*	57.31	53.29	70.27	51.89	62.56	64/91	79/104	48/109	87/122	69/112
	Ghana	64.42	81.76	69.09	74.93	77.60	51/91	31/104	52/109	42/122	43/112
	Ivory Coast*	55.35	77.33	62.84	65.87	58.40	67/91	40/104	60/109	64/122	74/112
	Kenya*	56.86	55.40	46.08	53.61	59.54	65/91	76/104	84/109	85/122	72/112
	Mali	66.86	65.48	60.86	65.76	57.21	46/91	61/104	65/109	65/122	77/112
	Morocco*	65.88	**	84.27	82.13	**	48/91	**	24/109	24/122	**
	Mozambique*	51.96	59.66	51.72	57.27	57.58	74/91	72/104	79/109	80/122	75/112
	Namibia	71.11	77.77	80.70	84.44	81.52	39/91	38/104	29/109	19/122	27/112
	South Africa	42.66	47.50	51.91	54.24	56.85	81/91	84/104	78/109	83/122	78/112
	Tanzania	45.11	66.13	62.12	69.56	62.67	78/91	59/104	63/109	56/122	67/112
	Zambia	53.34	73.61	62.69	75.28	72.33	71/91	43/104	61/109	40/122	49/112
	Zimbabwe	29.54	18.06	24.67	13.68	17.71	89/91	102/104	106/109	121/122	111/112
Argentina	Catamarca*	70.50	59.28	44.35	60.35	48.24	40/91	73/104	85/109	74/122	92/112
	Chubut*	26.34	31.79	25.13	34.86	37.26	90/91	98/104	105/109	109/122	104/112
	Jujuy*	54.75	37.07	42.68	54.31	60.29	69/91	93/104	88/109	82/122	71/112
	La Rioja*	52.66	37.96	22.15	37.40	39.99	73/91	92/104	107/109	108/122	101/112
	Mendoza	43.22	34.23	35.56	27.72	43.24	80/91	96/104	98/109	117/122	98/112
	Neuquen*	74.99	50.33	25.43	49.05	49.32	34/91	81/104	104/109	95/122	88/112
	Salta*	71.89	83.13	62.30	73.28	68.08	38/91	29/104	62/109	48/122	55/112
	San Juan	66.96	73.50	53.61	67.94	58.91	45/91	46/104	72/109	60/122	73/112
	Santa Cruz	61.38	62.00	40.86	42.02	47.78	58/91	69/104	90/109	103/122	94/112
Latin America and the Caribbean Basin	Bolivia	40.45	42.16	36.40	29.34	22.27	83/91	87/104	95/109	115/122	110/112
	Brazil	55.66	64.97	56.57	59.17	63.65	66/91	64/104	69/109	77/122	65/112
	Chile	80.55	78.68	83.50	83.16	85.89	25/91	35/104	26/109	22/122	21/112
	Colombia	44.80	45.68	53.75	57.23	50.53	79/91	86/104	70/109	81/122	87/112
	Dominican Republic*	61.66	62.04	65.55	50.99	60.35	57/91	68/104	57/109	91/122	70/112
	Ecuador	42.18	34.28	43.41	27.36	23.54	82/91	95/104	86/109	118/122	108/112
	French Guiana	58.91	79.64	52.39	58.79	67.08	62/91	34/104	74/109	78/122	57/112
	Guatemala	29.89	40.59	46.09	47.79	48.35	88/91	89/104	83/109	98/122	91/112
	Guyana*	61.76	72.44	59.76	71.45	64.40	56/91	50/104	67/109	52/122	62/112
	Mexico	65.13	69.97	71.14	72.90	71.50	49/91	53/104	47/109	50/122	50/112

Table 2 continued

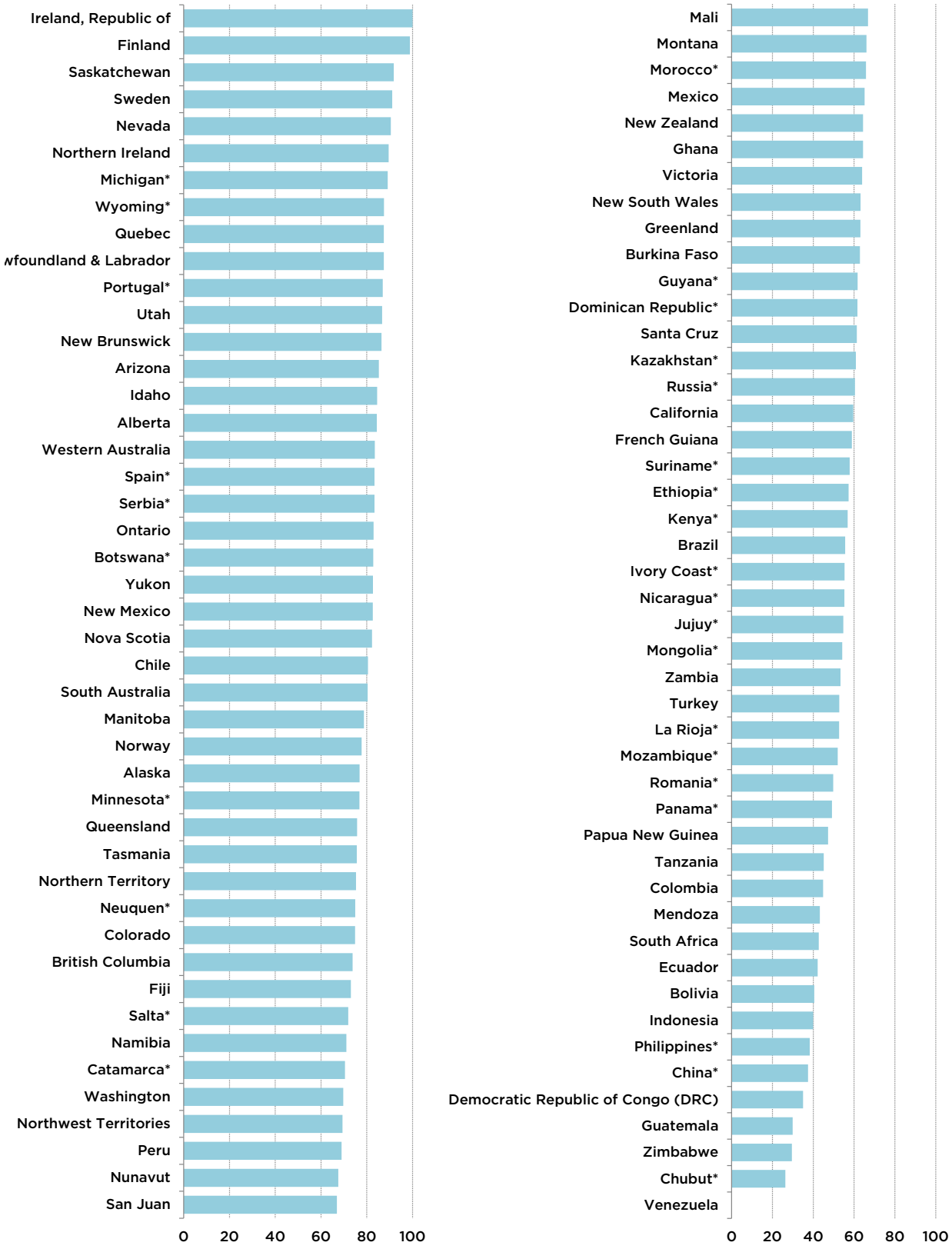
		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Latin America and the Caribbean Basin (cont.)	Nicaragua*	55.24	68.81	53.64	68.20	63.33	68/91	57/104	71/109	59/122	66/112
	Panama*	49.14	47.37	57.72	67.32	71.23	76/91	85/104	68/109	61/122	51/112
	Peru	68.99	69.54	66.80	68.37	65.29	43/91	54/104	55/109	58/122	60/112
	Suriname*	57.87	**	**	66.65	64.50	63/91	**	**	63/122	61/112
	Venezuela	0.00	0.00	0.00	0.00	0.00	91/91	104/104	109/109	122/122	112/112
Asia	China*	37.46	59.71	46.22	42.73	52.30	86/91	71/104	82/109	102/122	85/112
	Kazakhstan*	60.91	38.77	70.00	46.09	57.38	59/91	90/104	50/109	100/122	76/112
	Mongolia*	54.23	28.08	36.85	28.55	44.02	70/91	101/104	94/109	116/122	95/112
Europe	Finland	98.84	97.64	94.83	98.74	96.81	2/91	4/104	5/109	2/122	6/112
	Greenland	63.07	65.14	83.58	79.94	86.48	54/91	63/104	25/109	28/122	19/112
	Ireland, Republic of	100.00	100.00	100.00	100.00	100.00	1/91	1/104	1/109	1/122	1/112
	Northern Ireland	89.56	92.97	**	**	**	6/91	10/104	**	**	**
	Norway	77.75	88.98	89.19	90.47	88.88	28/91	19/104	12/109	13/122	13/112
	Portugal*	87.01	90.30	89.56	91.78	85.48	11/91	16/104	10/109	11/122	23/112
	Romania*	49.78	55.71	52.74	48.44	37.70	75/91	75/104	73/109	96/122	103/112
	Russia*	60.44	64.22	52.15	48.36	48.67	60/91	65/104	75/109	97/122	90/112
	Serbia*	83.36	81.35	83.01	77.84	76.81	19/91	33/104	27/109	34/122	45/112
	Spain*	83.39	85.18	78.29	74.36	80.00	18/91	24/104	35/109	45/122	30/112
	Sweden	91.11	98.15	96.45	95.74	99.65	4/91	3/104	3/109	4/122	2/112
	Turkey	52.74	54.61	71.46	69.78	76.85	72/91	78/104	45/109	55/122	44/112

Notes:

* Between 5 and 9 responses

** Not Available

Figure 4: Policy Perception Index



Best Practices Mineral Potential Index

Table 3 and figure 5 show the mineral potential of jurisdictions, assuming their policies are based on "best practices" (i.e., world class regulatory environment, highly competitive taxation, no political risk or uncertainty, and a fully stable mining regime). In other words, this figure represents, in a sense, a jurisdiction's "pure" mineral potential, since it assumes a "best practices" policy regime.

The "Best Practices Mineral Potential" index ranks the jurisdictions based on which region's geology "encourages exploration investment" or is "not a deterrent to investment." Since the "Encourages" response expresses a much more positive attitude to investment than "Not a Deterrent," in calculating these indexes we give "Not a Deterrent" half the weight of "Encourages." For example, the "Best Practices Mineral Potential" for Norway was calculated by adding the percent of respondents who rated Norway's mineral potential as "Encourages Investment" (29 percent) with the 50 percent who responded "Not a Deterrent to Investment," which was half weighted at 25 percent. Thus, for 2017 Norway has a score of 54, taking into account rounding. Table 3 provides more precise information and the recent historical record.

A caveat

This survey captures both general and specific knowledge of respondents. A respondent may give an otherwise high-scoring jurisdiction a low mark because of his or her individual experience with a problem there. We do not believe this detracts from the value of the survey. In fact, we have made a particular point of highlighting such differing views in the survey comments and the "What miners are saying" quotes.

It is also important to note that different segments of the mining industry (exploration and development companies, say) face different challenges. Yet many of the challenges the different segments face are similar. This survey is intended to capture the overall view.

Figure 5: Best Practices Mineral Potential Index

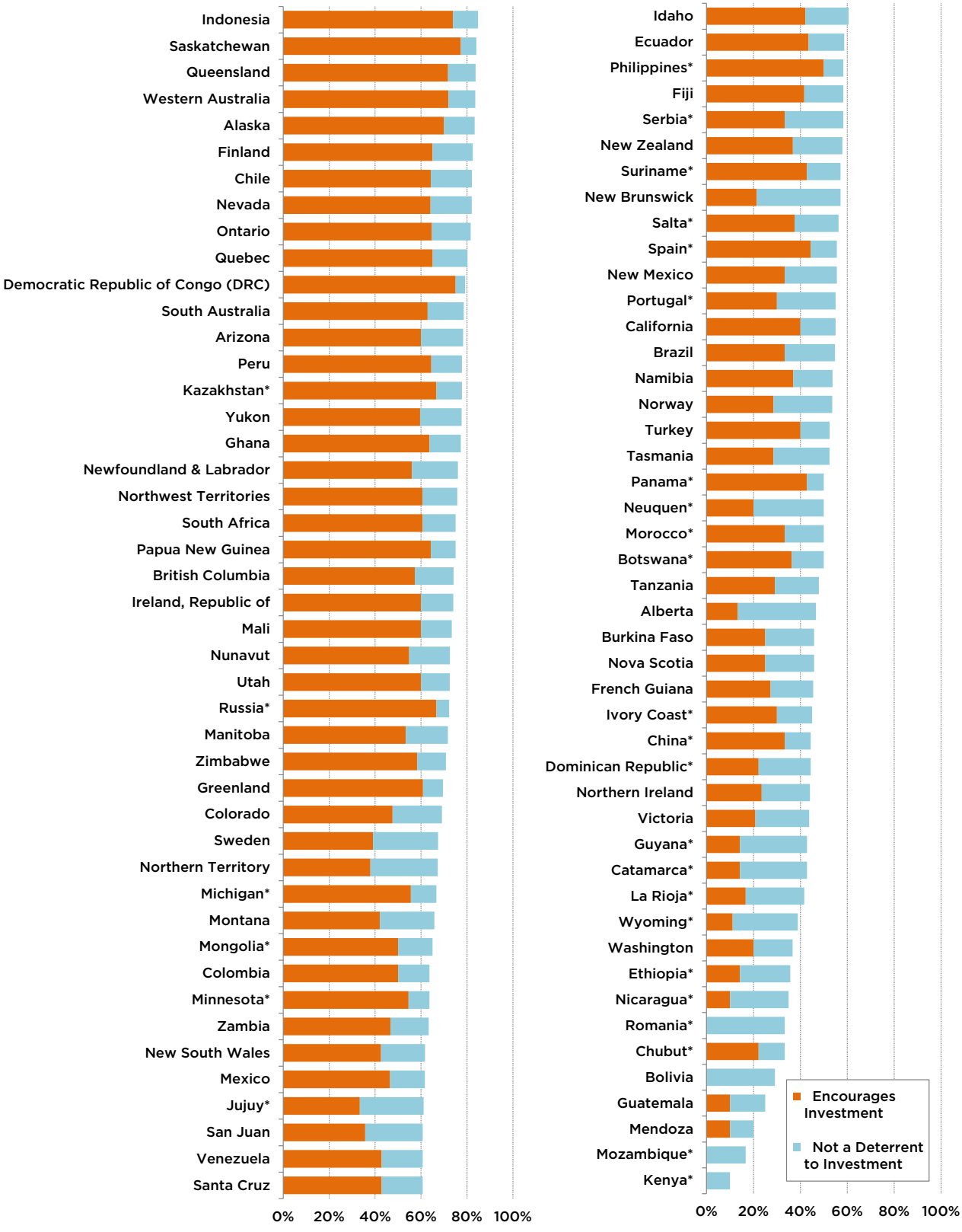


Table 3: Best Practices Mineral Potential Index

		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Canada	Alberta	46.67	58.33	54.69	62.07	66.07	69/91	61/104	70/109	53/122	34/112
	British Columbia	74.16	72.53	76.00	77.08	79.69	22/91	24/104	17/109	14/122	5/112
	Manitoba	71.67	84.00	66.18	81.11	77.91	28/91	2/104	42/109	5/122	10/112
	New Brunswick	57.14	52.94	50.00	65.15	59.38	52/91	74/104	78/109	44/122	52/112
	Newfoundland & Labrador	76.00	72.22	63.75	76.04	78.05	18/91	25/104	48/109	17/122	9/112
	Northwest Territories	75.76	77.78	72.83	84.44	77.85	19/91	11/104	21/109	4/122	11/112
	Nova Scotia	45.83	50.00	40.63	47.92	50.00	70/91	76/104	99/109	92/122	78/112
	Nunavut	72.58	75.00	78.05	73.75	74.66	25/91	18/104	8/109	26/122	15/112
	Ontario	81.62	74.62	77.04	75.77	77.35	9/91	22/104	13/109	18/122	12/112
	Quebec	80.16	81.82	77.98	79.72	73.13	10/91	5/104	9/109	9/122	17/112
	Saskatchewan	84.09	83.93	79.49	79.35	75.64	2/91	3/104	7/109	11/122	14/112
	Yukon	77.66	76.14	80.83	85.94	78.87	16/91	16/104	4/109	1/122	7/112
United States	Alaska	83.33	76.83	83.33	85.09	83.33	5/91	15/104	2/109	3/122	1/112
	Arizona	78.33	81.08	68.63	77.78	69.89	13/91	6/104	31/109	13/122	25/112
	California	55.00	75.00	56.45	63.51	55.07	57/91	19/104	65/109	49/122	65/112
	Colorado	69.05	66.07	68.42	65.12	57.46	31/91	41/104	33/109	45/122	58/112
	Idaho	60.53	75.00	50.00	80.00	65.31	46/91	20/104	78/109	8/122	36/112
	Michigan*	66.67	63.64	63.33	66.67	62.07	34/91	47/104	49/109	41/122	42/112
	Minnesota*	63.64	71.43	69.23	73.68	52.94	37/91	31/104	28/109	27/122	75/112
	Montana	65.79	71.15	62.07	72.22	61.22	35/91	34/104	52/109	29/122	45/112
	Nevada	82.08	80.70	79.61	85.80	81.85	8/91	8/104	6/109	2/122	3/112
	New Mexico	55.56	70.45	50.00	67.86	55.21	55/91	35/104	78/109	39/122	64/112
	Utah	72.50	76.92	74.19	74.19	73.64	26/91	14/104	20/109	25/122	16/112
	Washington	36.67	38.89	60.00	50.00	47.62	82/91	93/104	56/109	83/122	87/112
	Wyoming*	38.89	62.50	65.38	76.79	65.91	81/91	51/104	43/109	16/122	35/112
Australia	New South Wales	61.70	60.47	68.63	53.92	61.94	40/91	56/104	31/109	77/122	43/112
	Northern Territory	67.24	72.22	79.73	67.95	70.00	33/91	26/104	5/109	38/122	23/112
	Queensland	83.70	83.33	76.85	75.00	72.97	3/91	4/104	14/109	19/122	18/112
	South Australia	78.57	77.03	76.04	74.47	67.74	12/91	13/104	16/109	24/122	29/112
	Tasmania	52.38	52.78	66.67	62.00	56.90	63/91	75/104	35/109	54/122	60/112
	Victoria	43.75	57.41	50.00	45.16	53.41	77/91	68/104	78/109	97/122	72/112
	Western Australia	83.59	86.00	84.56	79.51	82.00	4/91	1/104	1/109	10/122	2/112
Oceania	Fiji*	58.33	66.67	43.75	61.54	40.00	48/91	39/104	93/109	55/122	101/112
	Indonesia	84.78	63.64	81.67	68.06	72.73	1/91	48/104	3/109	37/122	20/112
	New Zealand	57.89	44.12	58.00	59.26	54.29	51/91	86/104	62/109	63/122	68/112
	Papua New Guinea	75.00	73.81	77.27	70.00	77.14	20/91	23/104	12/109	32/122	13/112
	Philippines*	58.33	79.17	66.67	58.33	79.31	49/91	10/104	35/109	65/122	6/112

Table 3 continued

		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Africa	Botswana*	50.00	68.18	55.00	65.52	67.65	64/91	38/104	69/109	43/122	30/112
	Burkina Faso	45.83	65.38	71.88	55.77	56.45	71/91	42/104	23/109	72/122	62/112
	Democratic Republic of Congo (DRC)	79.17	80.95	70.45	68.97	69.12	11/91	7/104	26/109	34/122	26/112
	Ethiopia*	35.71	60.00	60.00	50.00	50.00	83/91	57/104	56/109	85/122	80/112
	Ghana	77.27	71.43	72.73	62.50	67.07	17/91	33/104	22/109	51/122	32/112
	Ivory Coast*	45.00	80.00	71.43	59.52	59.52	73/91	9/104	24/109	60/122	50/112
	Kenya*	10.00	40.91	33.33	23.08	53.85	91/91	90/104	106/109	120/122	71/112
	Mali	73.33	71.88	64.29	63.79	53.03	24/91	29/104	45/109	48/122	74/112
	Morocco*	50.00	**	66.67	68.18	**	65/91	**	35/109	36/122	**
	Mozambique*	16.67	30.00	50.00	54.17	36.11	90/91	99/104	78/109	76/122	105/112
	Namibia	53.70	58.33	62.50	70.37	60.61	60/91	62/104	50/109	31/122	47/112
	South Africa	75.00	57.69	62.12	57.89	64.58	21/91	66/104	51/109	67/122	37/112
	Tanzania	47.92	56.67	54.35	60.00	55.56	68/91	71/104	71/109	57/122	63/112
	Zambia	63.33	72.22	54.00	75.00	68.97	39/91	27/104	73/109	20/122	28/112
	Zimbabwe	70.83	57.69	52.63	56.00	48.28	29/91	67/104	77/109	71/122	85/112
Argentina	Catamarca*	42.86	44.44	40.91	75.00	40.48	78/91	85/104	98/109	21/122	99/112
	Chubut*	33.33	31.25	46.15	59.38	47.50	85/91	97/104	90/109	62/122	88/112
	Jujuy*	61.11	16.67	54.17	61.54	38.10	42/91	103/104	72/109	56/122	104/112
	La Rioja*	41.67	31.25	33.33	45.00	38.24	80/91	98/104	106/109	99/122	103/112
	Mendoza	20.00	36.36	40.48	44.12	45.31	89/91	95/104	100/109	102/122	95/112
	Neuquen*	50.00	10.00	58.33	54.55	39.29	66/91	104/104	60/109	74/122	102/112
	Salta*	56.25	60.00	52.94	73.53	59.62	54/91	59/104	76/109	28/122	49/112
	San Juan	60.71	57.14	55.88	75.00	58.33	43/91	69/104	68/109	22/122	54/112
	Santa Cruz	60.71	50.00	43.75	64.71	58.11	44/91	78/104	93/109	46/122	57/112
Latin America and the Caribbean Basin	Bolivia	29.17	53.13	50.00	55.00	56.58	87/91	73/104	78/109	73/122	61/112
	Brazil	54.76	60.87	64.71	75.00	66.98	59/91	54/104	44/109	23/122	33/112
	Chile	82.14	63.64	77.36	80.36	80.32	7/91	49/104	11/109	6/122	4/112
	Colombia	63.64	68.75	68.75	63.89	64.04	38/91	36/104	29/109	47/122	38/112
	Dominican Republic*	44.44	30.00	44.44	50.00	45.65	74/91	100/104	92/109	88/122	94/112
	Ecuador	58.70	61.11	46.67	60.00	50.96	47/91	53/104	89/109	58/122	77/112
	French Guiana	45.45	58.33	42.86	50.00	25.00	72/91	63/104	95/109	89/122	110/112
	Guatemala	25.00	50.00	38.89	31.82	46.88	88/91	79/104	103/109	115/122	92/112
	Guyana*	42.86	66.67	45.00	63.33	50.00	79/91	40/104	91/109	50/122	82/112
	Mexico	61.63	65.12	67.46	77.97	70.73	41/91	43/104	34/109	12/122	22/112

Table 3 continued

		Score					Rank				
		2017	2016	2015	2014	2013	2017	2016	2015	2014	2013
Latin America and the Caribbean Basin (cont.)	Nicaragua*	35.00	45.83	61.54	59.09	41.67	84/91	84/104	53/109	64/122	97/112
	Panama*	50.00	43.75	53.33	56.25	52.50	67/91	87/104	74/109	68/122	76/112
	Peru	77.78	76.09	70.90	80.36	72.90	14/91	17/104	25/109	7/122	19/112
	Suriname*	57.14	**	**	50.00	33.30	53/91	**	**	90/122	107/112
	Venezuela	60.71	46.43	53.13	52.17	40.48	45/91	83/104	75/109	82/122	100/112
Asia	China*	44.44	68.75	66.67	52.78	62.90	75/91	37/104	35/109	80/122	39/112
	Kazakhstan*	77.78	64.29	77.78	54.55	67.50	15/91	45/104	10/109	75/122	31/112
	Mongolia*	65.00	63.64	58.82	62.50	59.46	36/91	50/104	59/109	52/122	51/112
Europe	Finland	82.50	77.50	76.79	76.92	70.83	6/91	12/104	15/109	15/122	21/112
	Greenland	69.57	64.29	66.67	60.00	78.57	30/91	46/104	35/109	59/122	8/112
	Ireland, Republic of	74.00	71.88	75.00	65.91	60.94	23/91	30/104	17/109	42/122	46/112
	Northern Ireland	44.12	58.70	**	**	**	76/91	60/104	**	**	**
	Norway	53.57	58.33	58.33	52.50	58.33	61/91	64/104	60/109	81/122	55/112
	Portugal*	55.00	57.89	64.29	58.33	47.73	58/91	65/104	45/109	66/122	86/112
	Romania*	33.33	57.14	61.11	40.91	47.50	86/91	70/104	54/109	108/122	89/112
	Russia*	72.22	72.22	75.00	67.86	54.76	27/91	28/104	17/109	40/122	67/112
	Serbia*	58.33	50.00	50.00	45.45	54.17	50/91	82/104	78/109	96/122	70/112
	Spain*	55.56	60.53	56.82	44.74	58.33	56/91	55/104	64/109	100/122	56/112
	Sweden	67.39	75.00	66.67	68.52	69.05	32/91	21/104	35/109	35/122	27/112
	Turkey	52.50	64.71	59.09	47.06	70.00	62/91	44/104	58/109	93/122	24/112

Notes:

* Between 5 and 9 responses

** Not Available

Global Survey Rankings

The top

The top jurisdiction in the world for investment based on the Investment Attractiveness Index is Finland, which moved up from 5th place in 2016 (see table 1). Saskatchewan dropped into 2nd place after ranking 1st in the previous year, as this province experienced a slight drop in its score in 2017. Nevada moved up from 4th in 2016 to 3rd in 2017. The Republic of Ireland ranked 4th this year, and Western Australia dropped from 3rd in 2016 to 5th in 2017. Rounding out the top 10 are Quebec, Ontario, Chile, Arizona, and Alaska. Three jurisdictions—Ontario, Chile, and Alaska—were outside of the top 10 in the previous year.

For the fifth year in a row, the Republic of Ireland had the highest PPI score of 100. Ireland was followed by Finland in 2nd, which moved up from 4th the previous year. Along with Ireland and Finland the top 10 ranked jurisdictions are Saskatchewan, Sweden, Nevada, Northern Ireland, Michigan, Wyoming, Quebec, and Newfoundland and Labrador.

All were in the top 10 last year except for Michigan, Quebec, and Newfoundland & Labrador. Michigan increased in the rankings from 15th in 2016 to rank 7th in 2017, while Quebec moved up from 17th last year to 9th this year. Displaced from the top 10 were Manitoba, New Brunswick, and Western Australia.

Finland, the Republic of Ireland, Nevada, Saskatchewan, Sweden, and Wyoming have ranked consistently in the top 10 over the last six surveys. Table 2 illustrates in greater detail the shifts in the relative ranking of the policy perceptions of the jurisdictions surveyed.

The bottom

When considering both policy and mineral potential in the Investment Attractiveness Index, Guatemala ranks as the least attractive jurisdiction in the world for investment. This year, Guatemala replaced the Argentinian province of Jujuy as the least attractive jurisdiction in the world. Also in the bottom 10 (beginning with the worst) are Kenya, Argentina: Mendoza, Argentina: Chubut, Mozambique, Bolivia, Venezuela, Romania, China, and Nicaragua.

The 10 least attractive jurisdictions for investment based on the PPI rankings are (starting with the worst) Venezuela, Argentina: Chubut, Zimbabwe, Guatemala, Democratic Republic of Congo (DRC), China, Philippines, Indonesia, Bolivia, and Ecuador. Venezuela, Chubut, Zimbabwe, Philippines, Indonesia, and Ecuador were all in the bottom 10 jurisdictions last year. Displaced from the bottom 10 in 2017 were Afghanistan, Argentina: Mendoza, Mongolia, and South Sudan. Afghanistan and South Sudan were not ranked this year.

Global Results

Canada

Canada's median PPI score decreased by 4 points this year, but three Canadian jurisdictions—Saskatchewan (3rd), Quebec (9th) and Newfoundland and Labrador (10th)—were ranked in the top 10. When considering how Canadian jurisdictions rank on the Investment Attractiveness Index, Canada continues to perform well; it surpassed Australia in 2017 to become the most attractive region in the world for investment. Three Canadian jurisdictions—Saskatchewan (2nd), Quebec (6th), and Ontario (7th) —are all in the top 10 in terms of investment attractiveness.

Focusing on policy alone (and not overall investment attractiveness), British Columbia's PPI score dropped this year, after experiencing a slight rebound in 2016. Despite this decrease, British Columbia's rank increased this year, coming in at an overall ranking of 36th.[4] The two policy areas that continue to significantly hamper British Columbia are uncertainty concerning disputed land claims and uncertainty over which areas will be protected. The sum of negative responses for these policy factors was 69 percent and 68 percent of respondents, respectively. These scores likely reflect the ongoing tensions in the province over land title issues.[5]

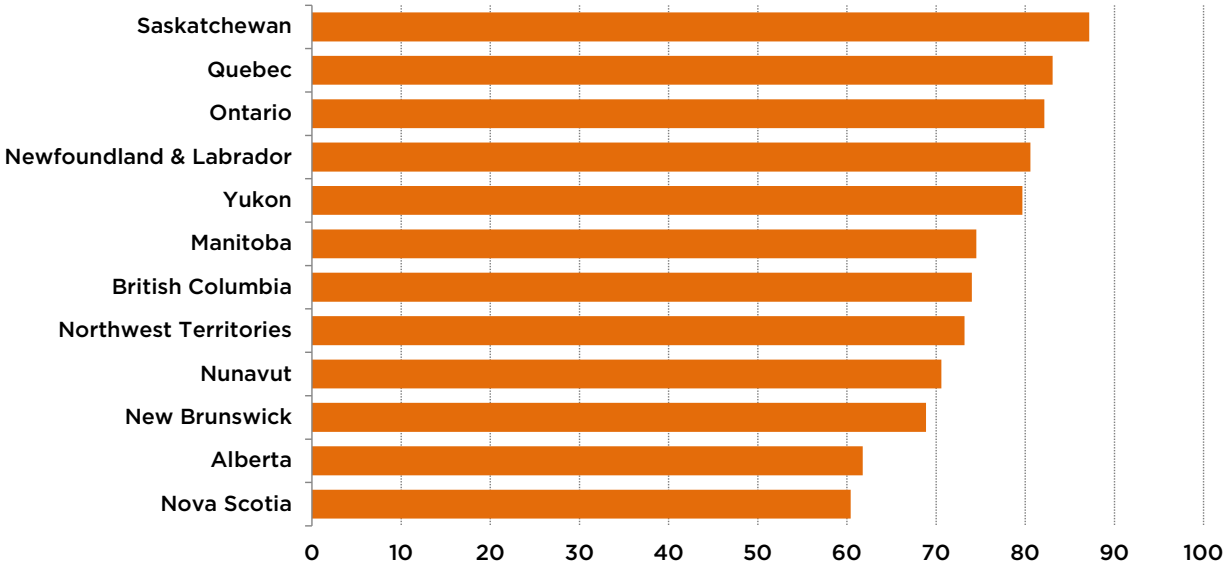
Alberta's PPI score remained similar to last year's, while its rank improved from 28th in 2016 to 16th in 2017. Despite this increase, Alberta's overall rank (16th) has deteriorated in recent years, from 3rd (of 112) in 2013, to 7th (of 122) in 2014 and 2015 (of 109), to 28th in 2016. This year, miners expressed decreased concern over regulatory duplication and inconsistencies (-28 points), uncertainty over which areas will be protected (-27 points), and the availability of labour and skills (-17 points).

Manitoba saw its score drop the most amongst Canadian jurisdictions this year—a decrease of nearly 18 points—and its rank deteriorated from 6th (of 104) in 2016 to 27th (of 91) in 2017. The drop in Manitoba's PPI score comes after five straight years of improvement. The decline reflects lower scores on the PPI as a greater percentage of respondents indicated that the following policy factors

4 Rankings are based on a jurisdiction's score relative to those of the other ranked jurisdictions. As a result, a jurisdiction may experience a drop or increase in rank when its year-over-year score is unchanged.

5 See Ravina Bains (2014), *A Real Game Changer: An Analysis of the Supreme Court of Canada* Tsilhqot'in Nation v. British Columbia Decision, Research Bulletin, Fraser Institute; and Ravina Bains (2015), *Economic Development in Jeopardy? Implications of the* Saik'uz First Nation and Stellat'en First Nation v. Rio Tinto Decision, Research Bulletin, Fraser Institute. Both available at www.fraserinstitute.org.

Figure 6: Investment Attractiveness Index—Canada



in Manitoba were "deterring investment": political stability (an increase of 23 percentage points)[6], taxation regime (+19 points), and socioeconomic agreements/community development conditions (+17 points), among others.

Ontario's PPI score remained similar to last year's, while its rank rose from 26th in 2016 to 20th in 2017. This year, miners expressed decreased concern over uncertainty concerning disputed land claims (-9 points), uncertainty over which areas will be protected (-8 points), and socioeconomic agreements/community development conditions (-5 points).

Quebec's PPI score decreased slightly this year, while its overall rank improved from 17th in 2016 to 9th in 2017, due to its score relative to those of the other ranked jurisdictions. This year miners expressed decreased concern over regulatory duplication and inconsistencies (-15 points), labour regulations and employment agreements (-9 points), and socioeconomic agreements/community development conditions (-8 points).

Nova Scotia also saw its PPI score decline significantly this year, dropping by nearly 10 points, and its rank decline from 11th in 2016 to 24th in 2017. Miners expressed increased concern over uncertainty regarding the administration, interpretation, or enforcement of existing regulations (+17 points), the legal system (+17 points), and political stability (+11 points).

6 The numbers in brackets show the difference between the total percentage of respondents that rate a particular policy factor as either a mild deterrent to investment, a strong deterrent to investment, or that they would not pursue investment due to this factor from 2016 to 2017 (i.e., the change in percentage points).

Table 6: Explorers vs. Producers in British Columbia, Ontario, and Quebec

Areas of Policy	British Columbia		Ontario		Quebec	
	Explorers	Producers	Explorers	Producers	Explorers	Producers
Uncertain Existing Regulations	64.6%	55.1%	44.7%	37.9%	25.9%	14.3%
Uncertain Environmental Regulations	72.9%	58.6%	50.0%	41.4%	35.7%	14.3%
Regulatory Duplication	48.8%	41.4%	44.7%	44.8%	29.6%	21.4%
Legal System	23.0%	10.3%	33.4%	6.6%	29.6%	3.6%
Taxation Regime	34.8%	44.8%	34.4%	46.4%	21.5%	40.7%
Disputed Land Claims	76.1%	58.6%	60.6%	44.8%	40.0%	18.5%
Protected Areas	73.3%	58.6%	51.7%	31.0%	48.1%	11.1%
Infrastructure	23.4%	24.1%	37.9%	27.5%	14.8%	22.2%
Socioeconomic Agreements	37.0%	33.3%	24.1%	25.0%	14.3%	12.0%
Trade Barriers	8.7%	11.5%	13.8%	3.7%	10.7%	4.0%
Political Stability	42.5%	14.3%	24.1%	0.0%	25.0%	3.8%
Labour Regulations	33.3%	14.3%	14.8%	21.4%	25.0%	11.5%
Geological Database	0.0%	3.8%	10.3%	0.0%	3.6%	0.0%
Security	2.1%	0.0%	0.0%	0.0%	3.7%	0.0%
Availability of Skills and Labour	2.1%	11.5%	6.9%	3.8%	3.7%	4.2%

This year, in an effort to compare how the different types of firms engaged in exploration view the policy environment, we also broke out the responses for British Columbia, Ontario, and Quebec according to whether the respondents were primarily explorers or producers. These three provinces were selected for the comparison because all had more than 10 respondents for each type of firm. Table 6 below displays the sum of the three "deterrent to investment" categories for the three provinces by whether the respondent was an explorer or a producer. There are a few notable differences.

In general, the results suggest that explorers are much more deterred than producers from investing in exploration activities in the three provinces due to the policy environment, as seen by their higher "deterrent to investment" percentages in most categories. In particular though, explorers indicated that they are more deterred than producers are from investing due to disputed land claims and uncertainty surrounding protected areas. For example, in British Columbia, 76 percent of explorers indicated that disputed land claims were deterrent to investment, while about 59 percent of producers said that this was the case. In Ontario and Quebec, explorer and producer perceptions also deviated widely—21 and 37 percentage points, respectively—when considering the uncertainty that results from protected areas. One area where producers in all three jurisdictions expressed more concern than explorers was taxation. The difference between the two types of firms was largest in Quebec, where over 40 percent of producers expressed concerns about the taxation regime, compared to over 21 percent of explorers.

Comments: Canada

The comments in the following section have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meanings.

British Columbia

There is a lack of consistency in the application of regulations. Some regions have one set of expectations, particularly environmental, while others are very different. Every time the BC government tries to "simplify" its application process, it actually becomes more complicated.
—A consulting company, Consultant

Excessive permit delays deter investment and hinder British Columbia's investment climate.
—An exploration company, Company president

Legal decisions and regulatory uncertainty are strong deterrents to investment. Such uncertainty limits resource development.
—An exploration company, Vice-president

The online exploration claim process is easy and quick. The geological survey has an excellent database of what is currently available in British Columbia.
—A consulting company, Consultant

Manitoba

Permitting processes are lengthy and ultimately deter investment.
—A consulting company, Company president

Manitoba's Duty to Consult Framework is unclear and requires revisions.
—A consulting company, Consultant

Manitoba has a Mines Branch that keeps up-to-date claim maps and mining disposition status; this is helpful. The system of writing and filing mining claims was changed a few years ago. This new system is actually very useful.
—An exploration company, Company president

Northwest Territories

Ongoing disputes over land claims and protected areas create uncertainty for investors.
—An exploration company, Company president

Nunavut

Land use permits are being granted and then put on hold due to changing mandates on land use and access related to the Draft Nunavut Land Use Plan. This plan has become very political within Nunavut. There is a significant disconnect between regional organizations and the various levels of government.
—An exploration company, Vice-president

Ontario

Ontario's high electricity rates are a deterrent to investing in the province.
—An exploration company, Consultant

Ontario's Ring of Fire delays create uncertainty for investors and ultimately deter investment.
—A producer company with more than US$50M, Company president

Quebec

The uranium moratorium is a step in the wrong direction. Such actions will drive investment away from the province.
—A producer company with more than US $50M, Vice-president

Quebec's low electricity rates make the province attractive for investment.
—An exploration company, Consultant

Saskatchewan

This province has a great permitting process that meets time lines and provides certainty for investors.
—An exploration company, Company president

Saskatchewan's mineral leasing system is excellent compared to other jurisdictions.
—A consulting company, Consultant

Yukon

There is constant friction between various levels of government and this creates uncertainty for investors.
—An exploration company, Manager

The United States

The United States' median investment attractiveness score dropped this year. Based on policy factors and mineral potential, the most attractive state to pursue exploration investment is Nevada, which this year ranked as the third most attractive jurisdiction in the world.

Based on the region's median investment attractiveness score, the United States is the third most attractive region in the world for investment, only slightly behind Canada and Australia. The median PPI score for the United States decreased slightly in 2017. The state with the most attractive policy environment alone is Nevada, which ranked 5th in the world. This year, three US jurisdictions—Nevada (5th), Michigan (7th), and Wyoming (8th)—ranked in the global top 10.

Michigan's PPI score was similar to last year's, and its rank increased from 15th (out of 104) in 2016 to 7th (out of 91) in 2017. This year, miners expressed decreased concern in the areas of political stability (-33 points), regulatory duplication and inconsistencies (-24 points), and labour regulations and employment agreements (-22 points).

Amongst US jurisdictions, Washington state saw the greatest improvement in its PPI score this year. Washington's rank improved from 67th last year to 41st this year. The three areas where Washington experienced the most improvement were: uncertainty concerning environmental regulations (-26 points), socioeconomic agreements/community development conditions (-20 points), and political stability (-19 points).

California is the least attractive jurisdiction in the US based on policy, ranking 61st in 2017. This year, miners expressed greater concern in the areas of uncertainty concerning disputed land claims (+26 points), labour regulations and employment agreements (+11 points), and the availability of labour and skills (+4 points).

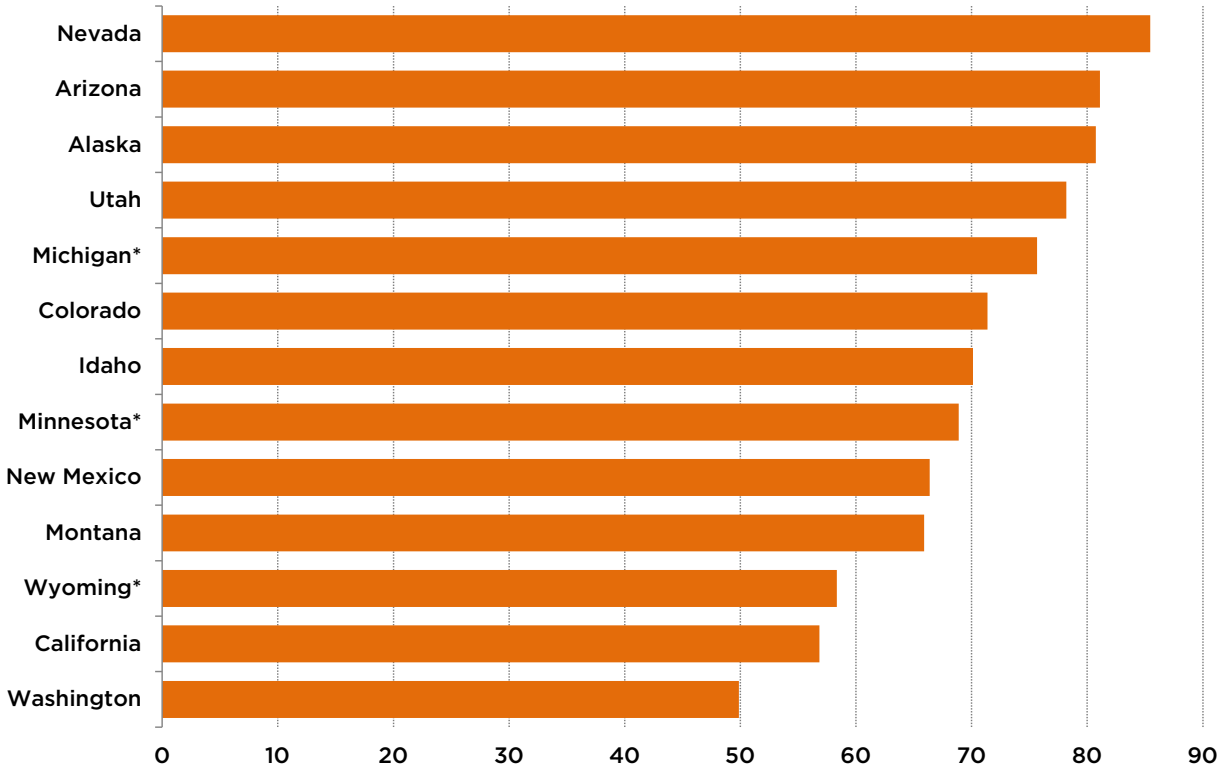
Comments: United States

The comments in the following section have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meanings.

Alaska

> *Alaska has incredible mineral potential and a favorable permitting regime, but regulatory processes remain unclear. In particular, ballot initiatives are creating uncertainty for investors.*
>
> —A producer company with more than US $50M, Company president

Figure 7: Investment Attractiveness Index—United States



Permit application processes are often stuck in legal limbo. Such legal disputes are time sensitive and excessive delays deter investment.
—A consulting company, Consultant

Arizona

The amount of time it takes to get a drilling permit is excessive and discouraging.
—An exploration company, Senior management

Idaho

Legal roadblocks make it impossible to launch a significant project especially in National Forest lands.
—An exploration company, Company president

Minnesota

The US Bureau of Land Management (BLM) announced it would not renew leases as it has before, creating uncertainty for investors.
—An exploration company, Senior management

Nevada

> *The Nevada Bureau of Mines and Geology is available at a low cost and information is easy to access.*
> —An exploration company, Company president

Washington

> *Excessive red tape during permitting led to the closure of operations in this region.*
> —An exploration company, Manager

Australia and Oceania

In considering of both policy and mineral potential, Australia dropped to the 2nd spot from being the most attractive region in the world for investment last year. Western Australia was once again rated to be the most attractive jurisdiction in the region and the 5th most attractive jurisdiction in the world this year based on its Investment Attractiveness score. This year, only Western Australia appeared in the global top 10 on the Investment Attractiveness Index. All Australian jurisdictions experienced a drop in their PPI scores this year.

Three Australian jurisdictions—Northern Territory, Victoria, and Western Australia—saw their PPI scores decline by approximately 10 points this year. Northern Territory saw a large reduction in its score and rank, moving down to 33rd (of 91 jurisdictions) from 22nd (of 104) last year, as more respondents rated the legal system (+15 points), infrastructure (+14 points), and the availability of labour and skills (+14 points) deterrents to investment. Western Australia's ratings showed a decline this year, with its policy ranking decreasing from 9th in 2016 to 17th in 2017, reflecting increasing concern over political stability (+19 points), socioeconomic agreements/community development conditions (+11 points), and the taxation regime (+10 points).

The PPI score for New South Wales was virtually unchanged from last year, and the state's rank improved from 66th (out of 104) in 2016 to 53rd (out of 91) in 2017. Miners had more favourable views of the state's taxation regime (-14 points), labour regulations/employment agreements (-11 points), and the legal system (-10 points).

Oceania continues to have a number of jurisdictions with relatively unattractive investment environments. Two jurisdictions in the region—Indonesia (84th) and the Philippines (85th)—ranked in the bottom 10 of all jurisdictions included in the survey this year based on their PPI scores. While many jurisdictions struggle when only policy is considered, many (such as Indonesia) perform much better when mineral potential is included, indicating that it is the resource base that drives the overall

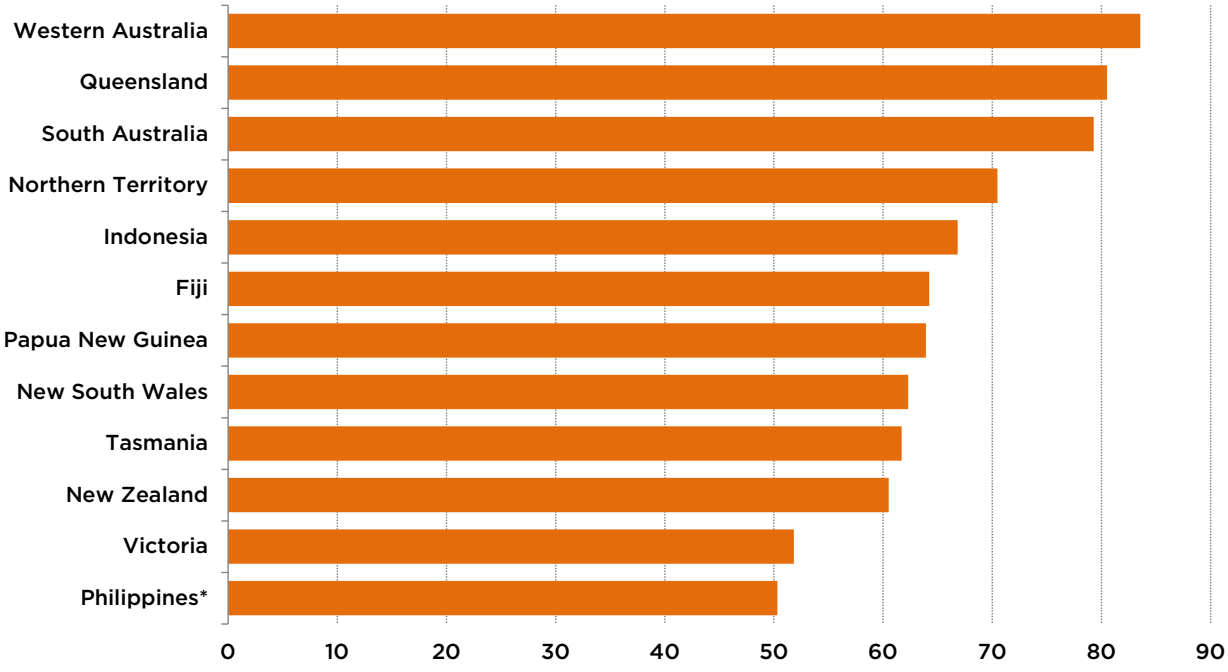
investment ratings for many of the jurisdictions in the region. The disparity between their PPI and Mineral Potential Index scores also indicates that there is considerable room for improvement in Oceania.

Within Oceania, New Zealand experienced the largest deterioration in its PPI score this year. Its 13-point drop caused New Zealand's rank to fall from 39th (out of 104) in 2016 to 50th (of 91) in 2017. New Zealand no longer ranks as the most attractive jurisdiction in Oceania based on policy. Miners expressed increased concern over the availability of labour and skills (+28 points), trade barriers (+25 points), and infrastructure (+21 points).

The Philippines saw a 10-point increase in its PPI score this year. Despite this rise, the Philippines still placed in the bottom 10 globally at 85th (of 91). All respondents cited the geological database and infrastructure as significant deterrents to investment in this jurisdiction.

Indonesia is among the bottom 10 least attractive jurisdictions for investment based on the PPI rankings. However, its score increased by over 10 points this year, leading to a rank of 84th in the world. Fewer respondents for Indonesia indicated that trade barriers (-24 points), regulatory duplication and inconsistencies (-21 points), and labour regulations/employment agreements (-18 points), were deterrents to investment.

Figure 8: Investment Attractiveness Index—Australia and Oceania



Comments: Australia and Oceania

The comments in the following section have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meanings.

Northern Territory

This region's moratorium on fracking and mandatory land access agreements are deterrents for investors.
—An exploration company, Manager

South Australia

South Australia's rigorous pursuit of renewable energy sources, without proper transitional arrangements, has created investor concerns about access to reliable power.
—A consulting company, Company president

South Australia has serious inconsistencies between its legislation and departmental policies/guidelines, which creates uncertainty for investors.
—Other, General manager

Western Australia

Excellent and transparent access to a comprehensive geological database.
—A consulting company, Consultant

Indonesia

The permitting process in Indonesia is unpredictable. Companies experience unnecessary delays and corruption is apparent.
—A producer company with more than US$50M, Senior management

The government's forced nationalization of mining properties, insistence on building smelters and other downstream processing facilities are deterrents for investors.
—A producer company with more than US$50M, Vice-president

Papua New Guinea

Land rights issues plague this region, creating investor uncertainty.
—An exploration company, Manager

Philippines

> *Lack of physical security and political unpredictability are deterrents to investment in the country.*
> —A producer company with less than US$50M, Company president

Africa

The median score for Africa on policy factors (PPI) showed a decline this year. This was also the case for the region's median investment attractiveness score. In terms of overall investment attractiveness, as a region, Africa ranks as the second least attractive jurisdiction for investment.

Two African countries—Zimbabwe (89th) and the Democratic Republic of Congo (87th)—ranked in the bottom 10 of the survey rankings this year based on policy. Zimbabwe was also amongst the bottom 10 in the previous five years. Kenya and Mozambique were the only two African jurisdictions in the global bottom 10 based on their overall investment attractiveness.

Botswana is again the highest ranked jurisdiction in Africa on policy factors, ranking 21st (of 91) in 2017, after ranking 12th (of 104) in 2016. Botswana's decline in its PPI score this year reflects increased concerns over uncertainty concerning protected areas (+32 points), political stability (+14 points), and infrastructure (+10 points). Namibia is the second most attractive jurisdiction when only policies are considered, ranking 39th (of 91) this year.

Four African countries this year—Democratic Republic of Congo (DRC), Ivory Coast, Tanzania, and Zambia—experienced declines in their PPI scores of over 20 points. The DRC experienced the largest decline in Africa based on the perceptions miners have of policy. The DRC's decrease of over 25 points resulted in this country dropping from 70th (of 104) last year to 87th (of 91) this year. Investors displayed increased concern this year over trade barriers (+38 points), uncertainty concerning disputed land claims (+37 points), and socioeconomic agreements/community development conditions (+37 points). The Ivory Coast also experienced a large decline of nearly 22 points in its PPI score, resulting in it dropping in the global rankings from 40th (of 104) in 2016 to 67th (of 91) this year. Investors indicated that trade barriers (+70 points), uncertainty regarding the administration, interpretation, or enforcement of existing regulations (+56 points), political instability, and labour regulations and employment agreements (both +40 points) were acting as deterrents to investment this year.

Tanzania's score and rank also deteriorated this year, dropping from 59th (of 104) last year to 78th (of 91) this year. This year miners expressed increased concern over uncertainty regarding the

administration, interpretation, or enforcement of existing regulations (+55 points), trade barriers (+50 points), and security (+47 points). Zambia (71st) saw its PPI score decline this year as well, removing this African country from the top 50 countries after ranking 43rd (of 104) last year. Zambia experienced increased concern over the taxation regime (+32 points), geological database (+30 points), and political instability (+30 points).

Comments: Africa

The comments in the following section have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meanings.

Democratic Republic of Congo

Tax bills have been levied at random, revealing unclear laws and instances of corruption.
—An exploration company, Director

Licenses can be removed and re-issued to other parties without reason or an explanation.
—A producer company with more than US$50M, Vice-president

Namibia

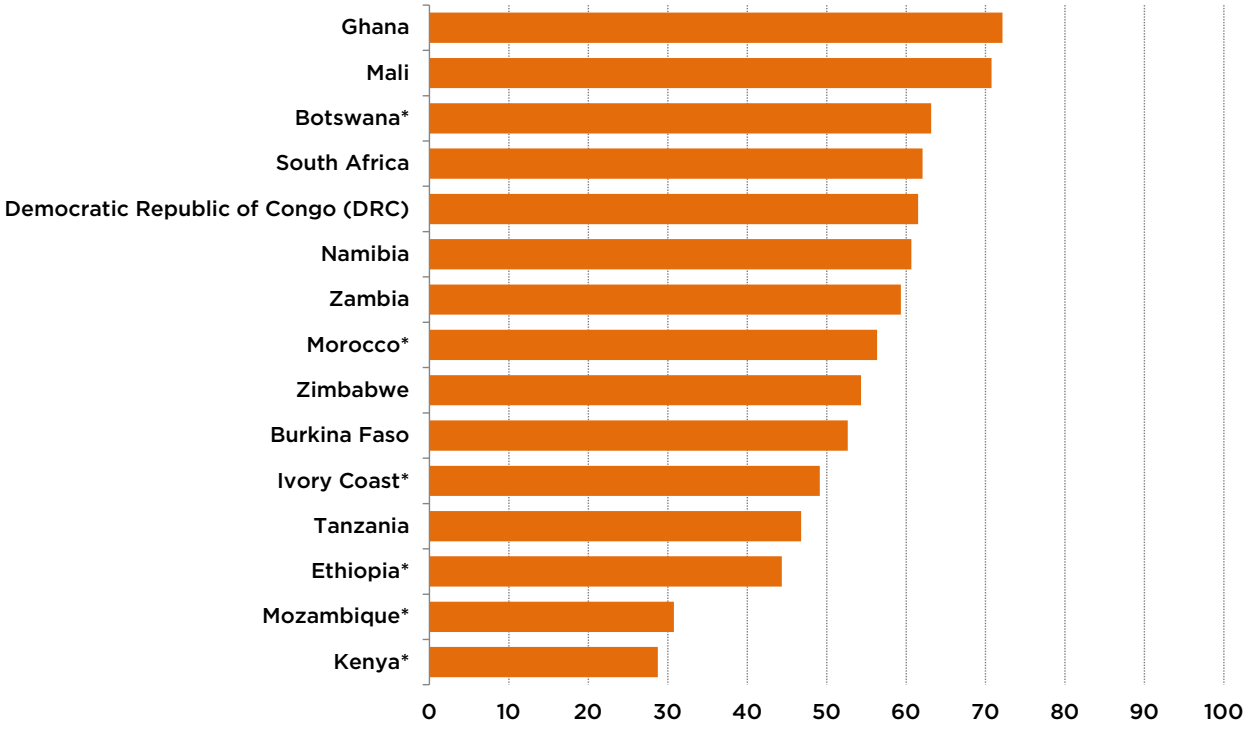
The government has issued licenses ahead of its own legislated rules and approval processes. This has caused years of delays and court cases where the government acknowledged fault but still took almost two years to rectify the situation. This delay comes at a high cost for mining companies and further damages a region that is so desperate for employment and economic activity.
—An exploration company, Vice-president

Laws are difficult to navigate. Corruption and nepotism dominate licensing processes.
—Other, Geologist

South Africa

The Department of Mineral Resources is corrupt and incapable of administering licenses in an efficient manner. Politically connected people receive special treatment on a regular basis.
—Other, Executive director

Figure 9: Investment Attractiveness Index—Africa



Government corruption, local ownership requirements, and employment regulations that require employment quotas discourage investment in the region.
—A producer company with less than US$50M, Vice-president

Tanzania

Legislative changes in Tanzania, which are being retrospectively applied, undermine the sanctity of contracts and remove recourse for international arbitration to resolve disputes with the government. This creates uncertainty and instability and makes for a particularly hostile investment environment.
—A producer company with more than US $50M, Manager

Taxation is excessive and random.
—A exploration company, Senior management

Argentina, Latin America, and the Caribbean Basin

Argentina is no longer the least attractive region in the world for investment. Both its median PPI score and its median investment attractiveness score increased this year, the latter by over 23 points, making Argentina the fifth most attractive region in the world when considering policies only.

All but four of the Argentinian provinces saw increases in their PPI scores this year. Neuquen had the largest PPI score increase within Argentina, and the province is now ranked as the most attractive jurisdiction for investment in the country based on perceptions of its policy environment. Neuquen's 25-point score increase resulted in the province improving its ranking from 81st (of 104) in 2016 to 34th (of 91) in 2017, as respondents showed decreased concern over the uncertainty concerning protected areas, labour regulations and employment agreements (both -60 points), and uncertainty concerning environmental regulations (-47 points). The Argentinian province Jujuy also saw a large increase in its PPI score, moving up by nearly 18 points, as respondents' ratings improved for labour regulations and employment agreements (-50 points), uncertainty concerning protected areas (-43 points), and the taxation regime (-43 points). Catamarca and La Rioja also saw their scores improve by over 10 points.

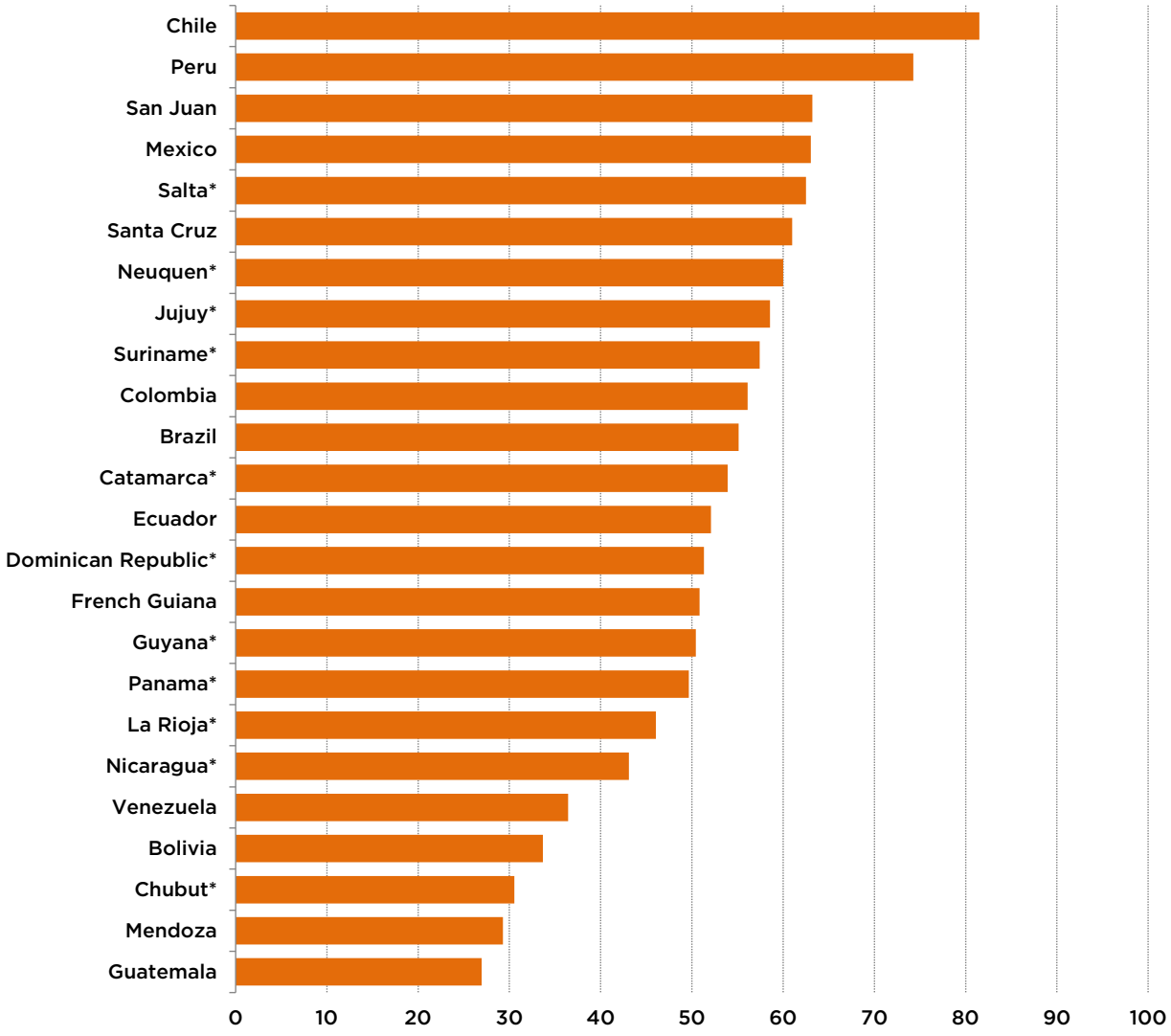
Despite the improvements for some of Argentina's provinces, some are also among the least attractive jurisdictions in the world. Indeed, Chubut (90th) is the second least attractive jurisdiction for investment based on its PPI score. And for investment attractiveness, the scores of two Argentinian provinces—Chubut (88th) and Mendoza (89th)—rank them in the bottom ten.

In Latin America and the Caribbean Basin, the median investment attractiveness score decreased slightly this year, making this region the least attractive for investment globally. Based on their investment attractiveness score, four jurisdictions in this region—Nicaragua, Bolivia, Venezuela, and Guatemala—ranked in the global bottom 10. Guatemala is the least attractive jurisdiction for investment globally, based on policy and mineral potential; the jurisdiction dropped nearly 20 points this year.

Four Latin American countries—Ecuador, Bolivia, Guatemala, and Venezuela—were also among the bottom 10 jurisdictions based solely on policy (PPI). Venezuela again occupied the least attractive spot in the world based on policy. The median PPI score for Latin America and the Caribbean Basin decreased slightly from 2016. Overall, Chile (25th), Peru (43rd), Mexico (49th), Guyana (56th) and the Dominican Republic (57th) are the most attractive jurisdictions in the region for investment, based on policy.

Chile is once again the top-ranked jurisdiction in the region, ranking 25th (of 91) this year, after ranking 35th overall on the PPI in 2016. Respondents indicated decreased concern over Chile's legal system (-16 points), taxation regime (-14 points), and geological database (-13 points). French Guiana

Figure 10: Investment Attractiveness Index—Argentina, Latin America, and the Caribbean Basin



experienced the largest decline in Latin America and the Caribbean this year, dropping its rank from 34th (of 104) in 2016 to 62nd (of 91) in 2017. French Guiana saw diminished investor perceptions in a number of areas including the taxation regime (+60 points), socioeconomic agreements/community development conditions (+38 points), and labour regulations and employment agreements (+38 points).

Comments on Argentina, Latin America, and the Caribbean Basin

The comments in the following section have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meanings.

Catamarca

Border disputes resulted in questionable behavior from local authorities. Corruption in this region led to a misallocation of exploitation permits.
—A consulting company, Company president

Chubut

The ban on open pit mining is a disaster and the proposed high-royalty "solution" a total nightmare.
—An exploration company, Company president

Mendoza

Mendoza has a ban on open pit mining and cyanide use. Such policies are unfavorable for investment in exploration and mining.
—An exploration company, Company president

Salta

Permit discrepancies and inconsistencies between provinces are concerning for investors.
—A consulting company, Company president

Bolivia

The government has significantly increased their tax take from mining operations, which is a deterrent to investing in the country.
—A consulting company, Company president

Brazil

The granting of exploration licenses has been suspended in most states. This drastic action is a major deterrent for investors.
—A consulting company, Manager

Chile

Administration requirements have been streamlined for permitting processes, creating certainty for investors.
—A consulting company, Consultant

Indigenous consultation processes are unclear in this country, making it difficult for investors to navigate the system.
—A producer company with more than US$50M, Company president

Colombia

Judicial activism, corruption, and biased information are all accepted in this jurisdiction. This leaves few opportunities for mining companies to participate in the legal system.
—A producer company with more than US$50M, Vice-president

Guatemala

Indigenous consultation processes create uncertainty for investors.
—A producer company with more than US$50M, Company president

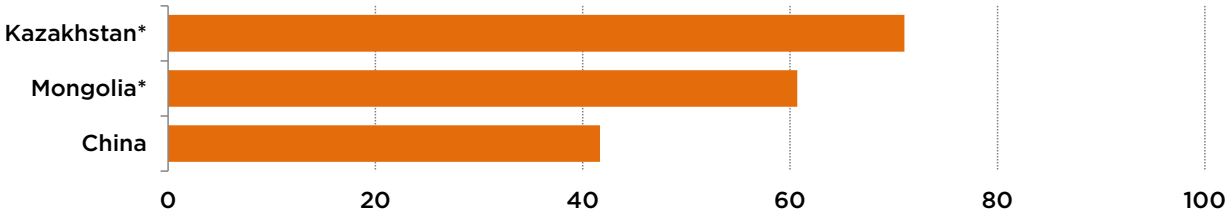
Asia

Asia's median investment attractiveness increased this year by over 13 points. The region overall is now more attractive than Argentina, Africa, and Latin America and the Caribbean Basin. Kazakhstan (24th) is the most attractive jurisdiction in the region based on its investment attractiveness rating. China's score (83rd) dropped by nearly 24 points this year, placing China among the bottom 10 least attractive jurisdictions for investment.

While some Asian jurisdictions perform modestly on their overall investment attractiveness, on policy the region continues to struggle. Despite the increase in Asia's median policy score this year, the region is still the second least attractive policy environment in the world. Two Asian countries—Kazakhstan and Mongolia—increased their PPI scores by more than 20 points this year.

China (86th) experienced a large decline in its PPI score this year, dropping by over 22 points. Investors expressed increased concern in the areas of socioeconomic agreements/community development conditions, uncertainty concerning disputed land claims (both +40 points), and security (+32 points).

Figure 11: Investment Attractiveness Index—Asia



Kazakhstan displaced China as the highest ranking jurisdiction in the region, increasing its position from 90th (out of 104) in 2016 to 59th (out of 91) in 2017. Respondent ratings improved most significantly for the legal system (-36 points), uncertainty regarding the administration, interpretation, or enforcement of existing regulations (-27 points), and security (-18 points). Mongolia's PPI score also increased by 26 points in 2017 and its ranking improved from 101st (of 104) last year to 70th (of 91) this year as respondents' ratings showed decreased concern over its geological database (-39 points), availability of labour and skills (-32 points), and uncertainty concerning protected areas (-27 points).

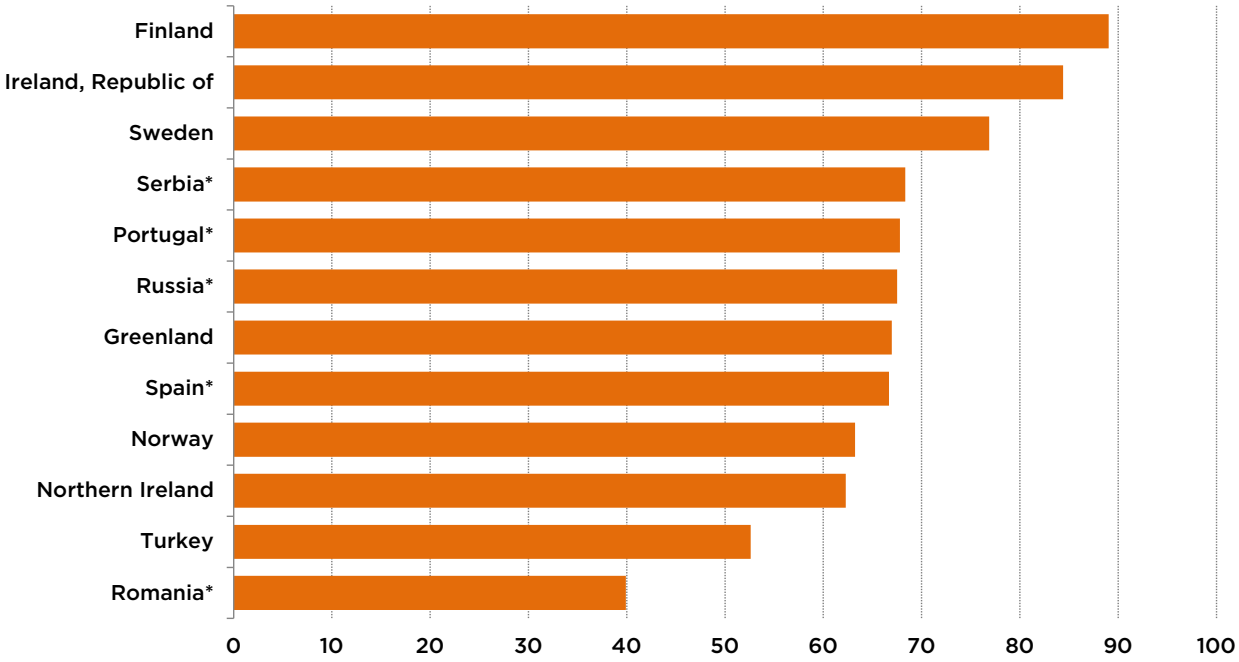
Europe

Europe's median investment attractiveness score decreased slightly this year. However, Europe still has some of the most attractive jurisdictions in the world for investment, including two in the global top 10: Finland (1st), and the Republic of Ireland (4th). The lowest ranked European jurisdiction on this measure is Romania at 84th.

In particular, a number of European jurisdictions have relatively attractive policy environments. The Republic of Ireland (1st), Finland (2nd), Sweden (4th) and Northern Ireland (6th) all ranked in the global top 10 on policy, the highest number of jurisdictions out of any one region. Ireland has been the top ranked jurisdiction based on policy for the past five years. Ireland, Finland, and Sweden have all ranked in the PPI top 10 every year over the last six years. Norway (28th) has also been a consistent top performer in the survey, but fell out of the top 20 this year.

Norway saw its ranking decrease from 19th in 2016 to 28th in 2017 due to increased concern over regulatory duplication and inconsistencies (+37 points), uncertainty concerning the administration, interpretation, or enforcement of existing regulations (+27 points), and uncertainty concerning environmental regulations (+25 points). Sweden's more than 7-point drop in its PPI score led to a rank of 4th in 2016, down from 3rd in the previous year. Investors expressed greater concern over regulatory duplication and inconsistencies (+10 points), socioeconomic agreements/community development conditions (+5 points), and the availability of labour and skills (+5 points).

Figure 12: Investment Attractiveness Index—Europe



Serbia moved up from 33rd last year to 19th this year. Its higher PPI score is reflective of improved perceptions by respondents of the uncertainty concerning environmental regulations (-42 points), regulatory duplication and inconsistencies (-31 points), and the taxation regime (-30 points).

Comments on Europe

The comments in the following section have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meanings.

Finland

> *Finland is a very transparent system, with excellent access to data and information.*
> —A consulting company, Manager

Northern Ireland

> *The availability of geoscientific data in Northern Ireland is superb.*
> —A producer company with more than US$50M, Manager

Norway

Norway is plagued by inconsistent and unclear laws and regulations. Administrative errors unnecessarily stall exploration licensing processes.
—An exploration company, Company president

Republic of Ireland

The Republic of Ireland is a jurisdiction where they do as they say, constantly, and in a transparent manner. Officials have a can-do attitude that follows the laws of the land, which is a refreshing change.
—An exploration company, Company president

This jurisdiction processes license approvals in a timely manner (normally 1–2 months) and permissions to drill can be issued within weeks. Ireland's efficient administrative processes ultimately encourage investment.
—An exploration company, Senior management

Sweden

Sweden is a stable system; however, there is still room for improvement. Investors have concerns over permit delays, lengthy legal disputes, and inconsistent environmental regulations.
—An exploration company, Other

Overview

An analysis of the regional trends in the results of the Investment Attractiveness Index (based on both mineral potential and policy factors) from the 2017 mining survey indicates a stark difference between geographical regions; notably the divide between Australia, Canada, and the United States and the rest of the world. As figure 13 indicates, Canada surpassed Australia as the most attractive region in the world for investment this year, and the United States is nearly tied with Australia. Six jurisdictions—Latin America and the Caribbean, Africa, Europe, United States, Australia, and Canada—saw a decrease in their relative investment attractiveness. Australia experienced a 9 percent decline in its regional median score from 2016, while Africa experienced an 11 percent decline. Argentina experienced the largest improvement, with a 65 percent increase in its regional median investment attractiveness score. In general, investment attractiveness is declining in most of the world's regions.[7]

The regional trend for policy measures (figure 14) is again dominated by certain regions (Europe, Canada, the United States, and Australia). When considering policy alone, Europe displaced Canada from the top spot in 2017. Europe's presence with the other top performing regions, when only policy is considered (not pure mineral potential), indicates that mineral potential is the factor holding Europe back from being in the same category as the three other most attractive regions in the world. Asia's median policy score experienced a large increase this year, although, as a whole, it is still the second least attractive region in the survey. Of the regions included in the survey, Oceania now has the least attractive policy environment.

Also of interest is the difference in results between regional median investment attractiveness and PPI. For example, Europe declined in its median investment attractiveness score, while performing better as a region on the PPI. This indicates that what is driving the region's decline in investment attractiveness are investors' views of Europe's pure mineral potential and not necessarily policy.

7 The regional median investment attractiveness scores are calculated based on the jurisdictions included in each year. As a result, the number of jurisdiction included in the regional score will vary year-over-year depending on the number of survey responses.

Figure 13: Regional Median Investment Attractiveness Scores 2016 and 2017

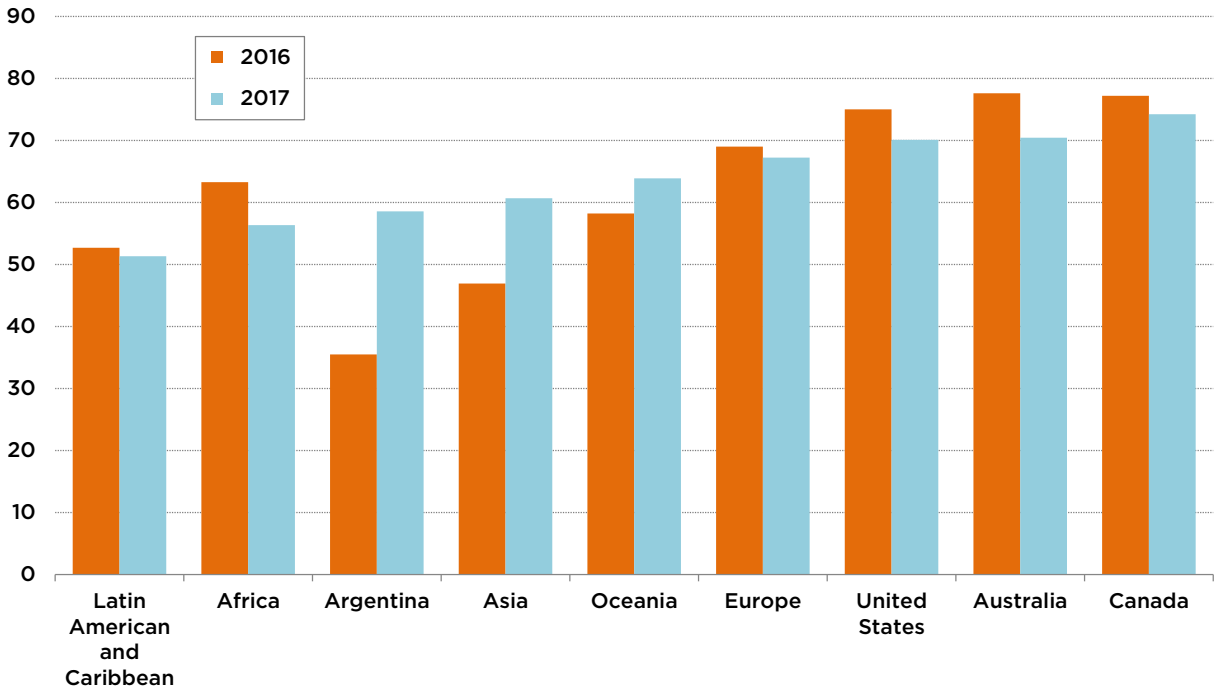
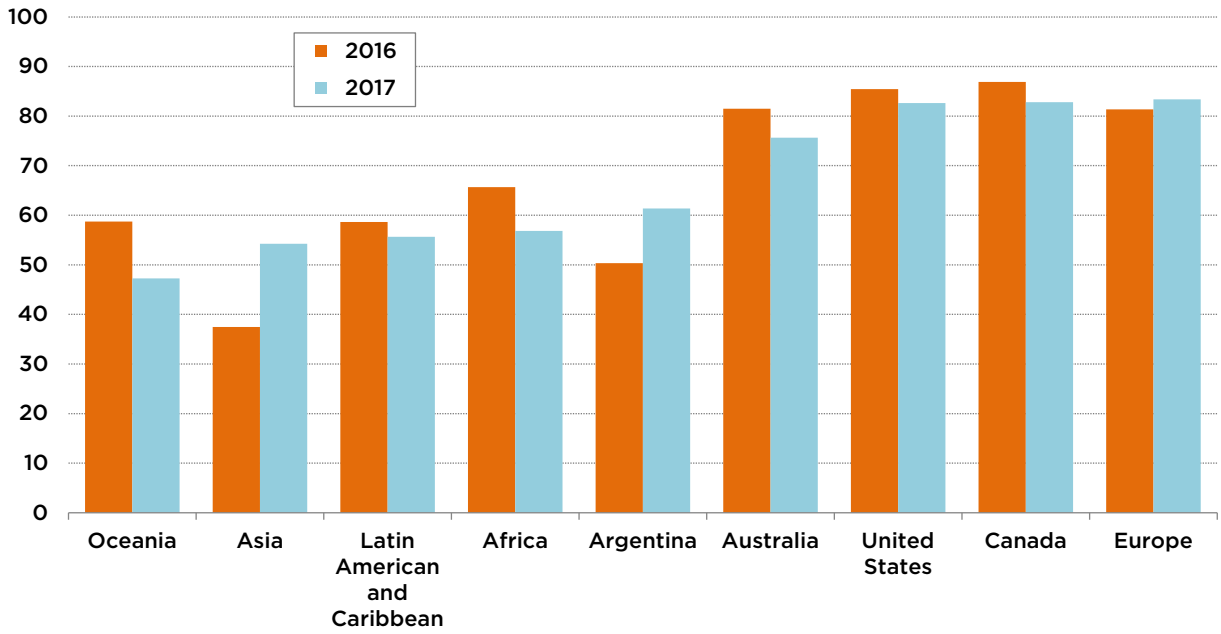


Figure 14: Regional Median Policy Perception Index Scores 2016 and 2017



Explanation of the figures

Figures 15 through 29 show the percentage of respondents who rate each policy factor as "encouraging investment" or "not a deterrent to investment: (a "1" or "2" on the scale). Readers will find a breakdown of both negative and positive responses for all areas online at fraserinstitute.org. (Note that any jurisdictions shown with a * received between 5 and 9 responses from survey participants.)

Figure 15: Uncertainty Concerning the Administration, Interpretation and Enforcement of Existing Regulations

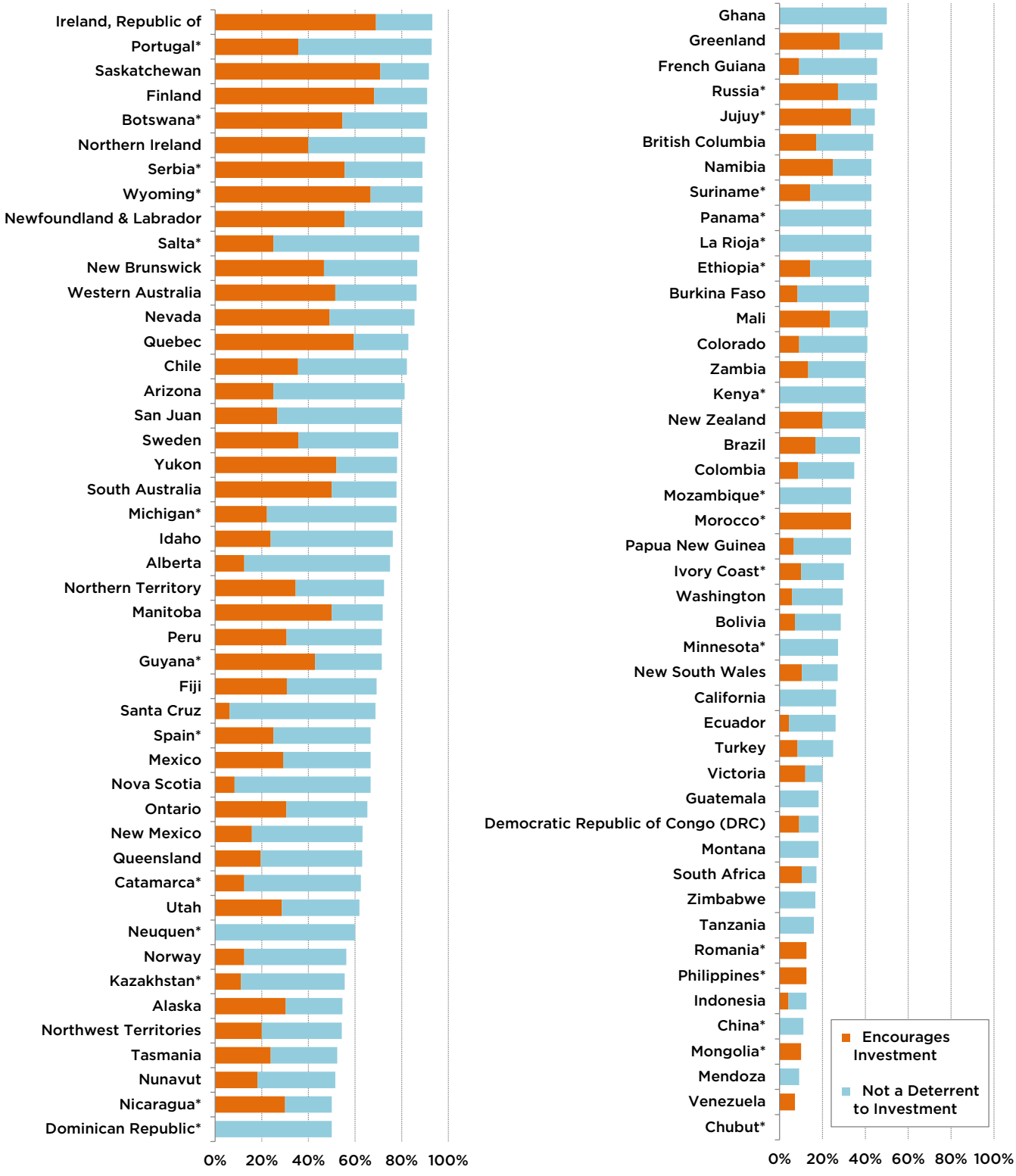


Figure 16: Uncertainty Concerning Environmental Regulations

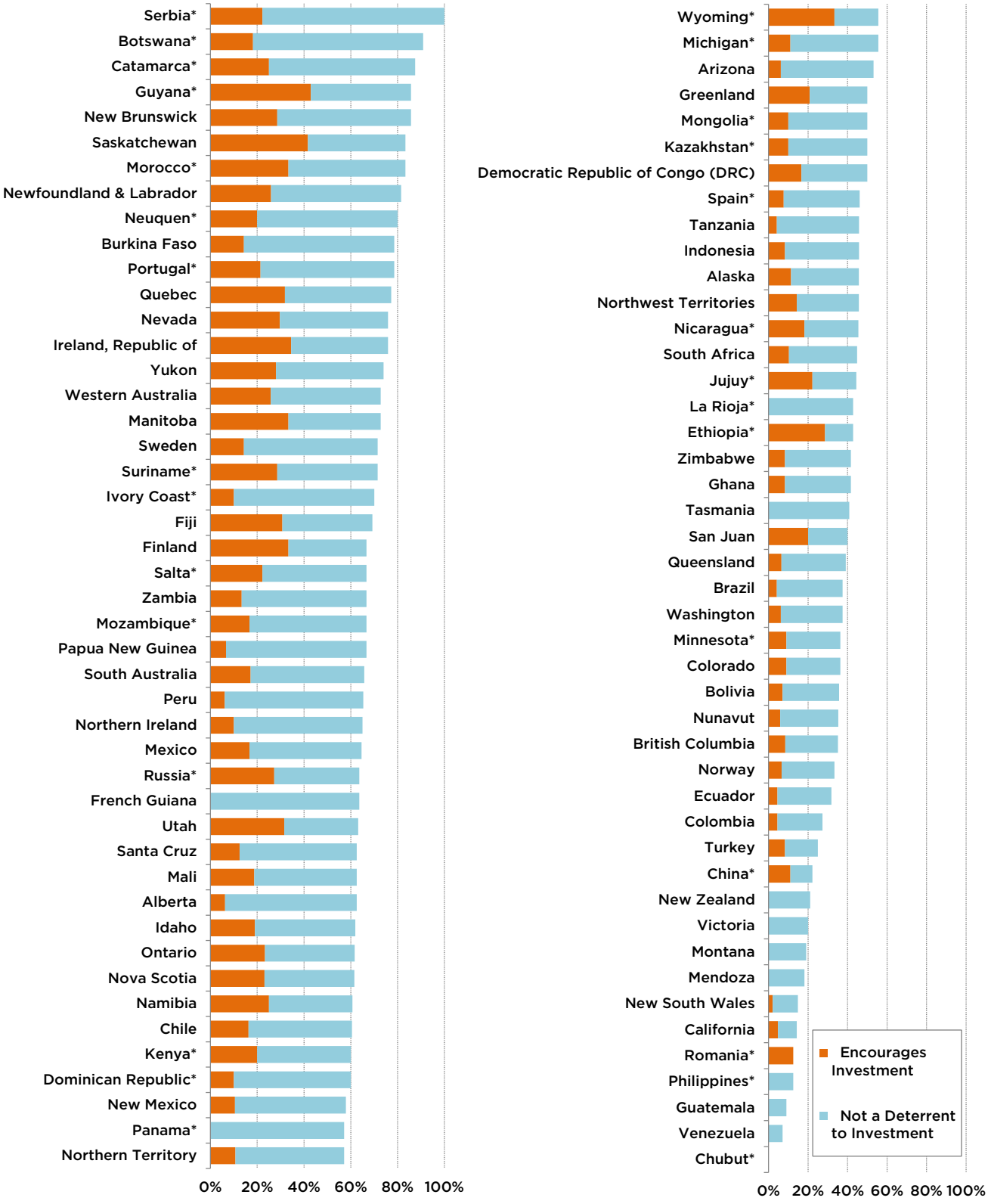


Figure 17: Regulatory Duplication and Inconsistencies

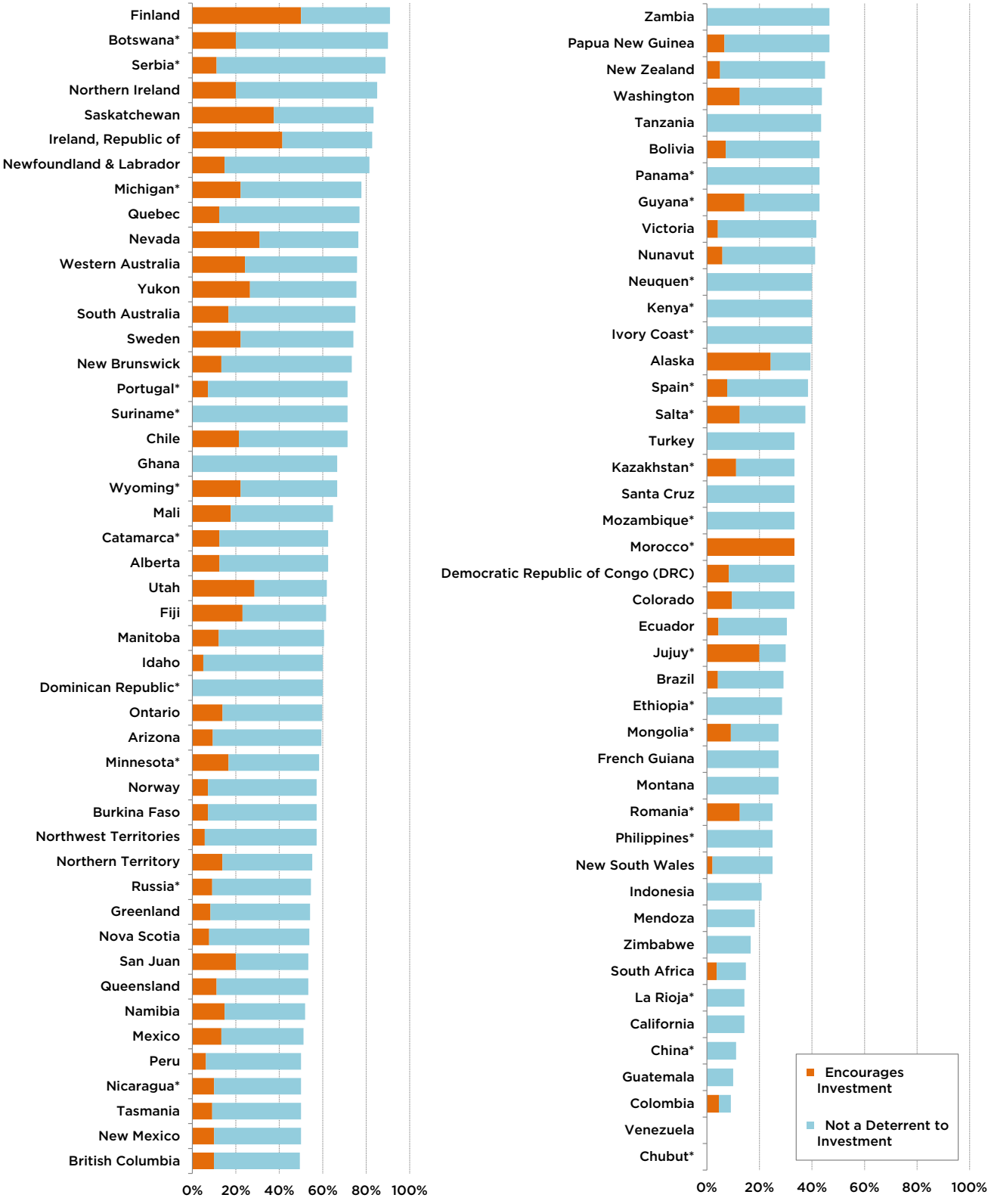


Figure 18: Legal System

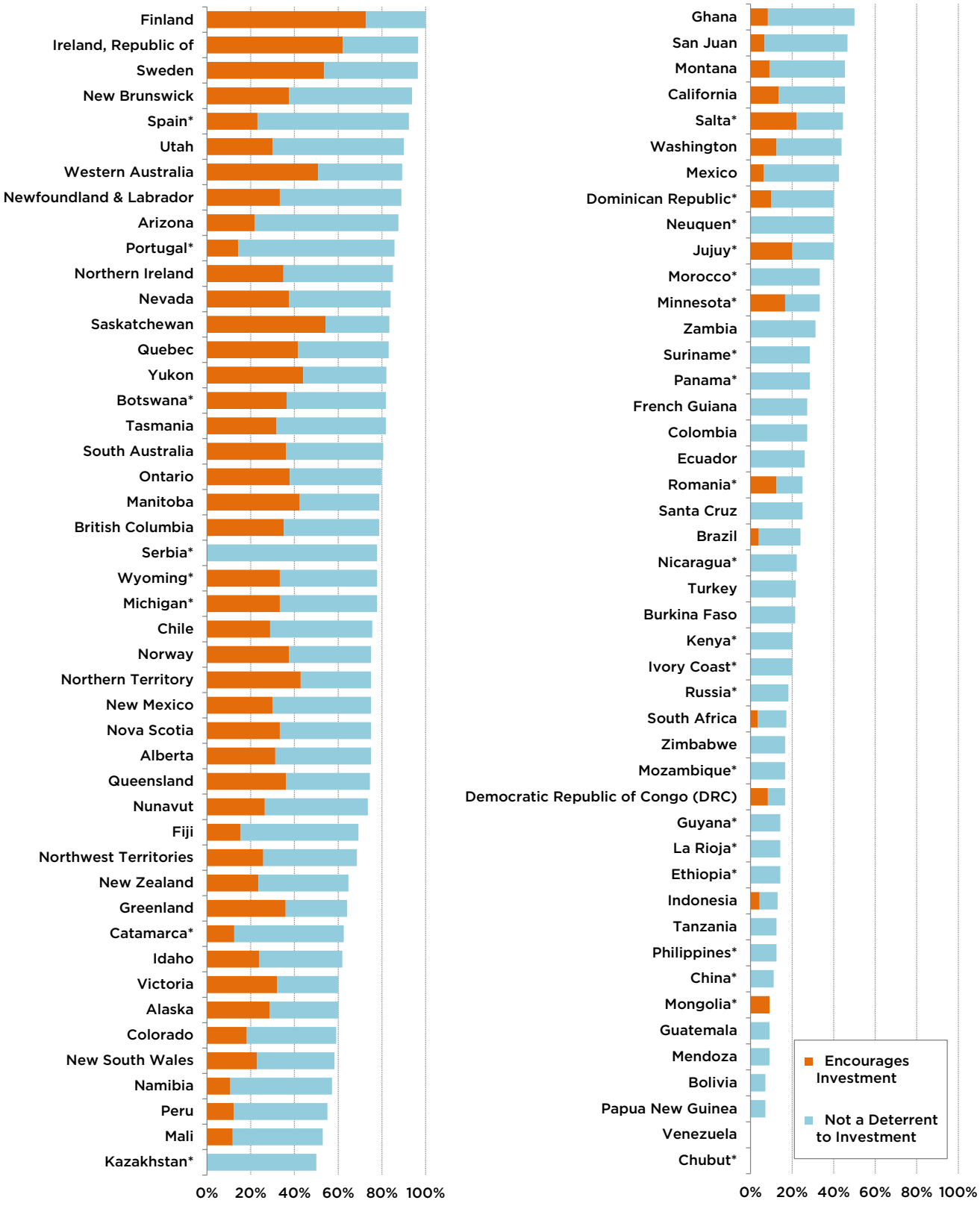


Figure 19: Taxation Regime

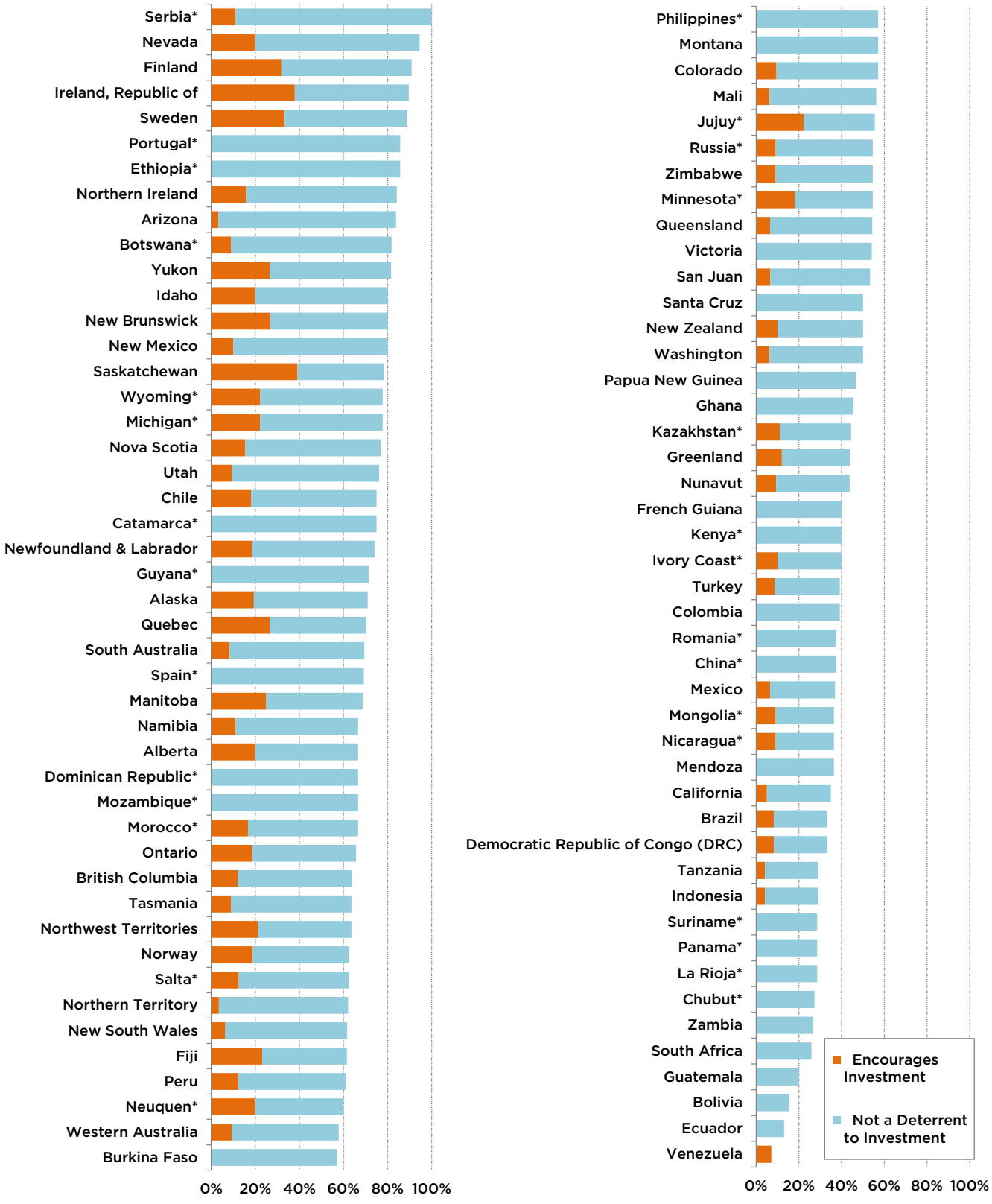


Figure 20: Uncertainty Concerning Disputed Land Claims

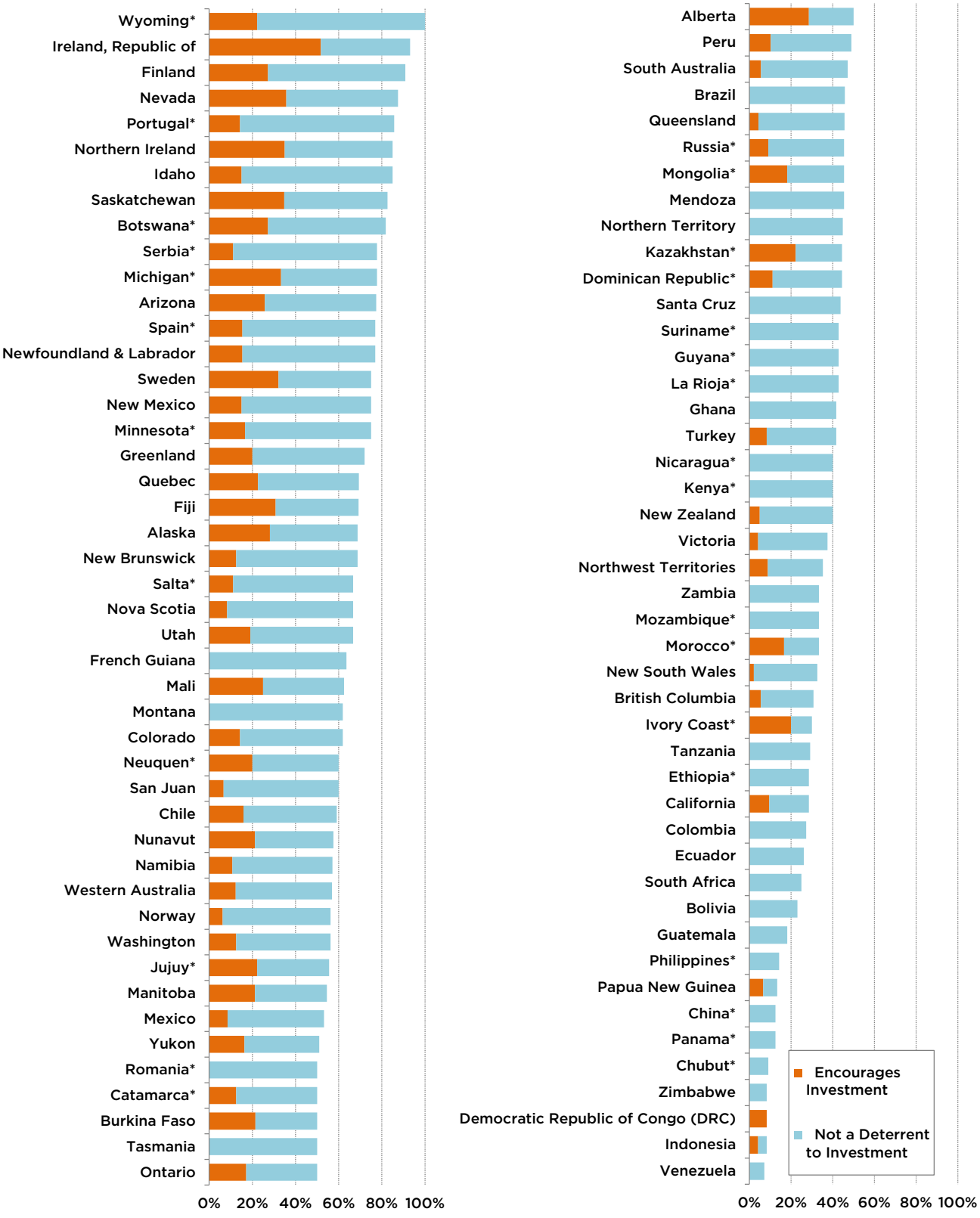


Figure 21: Uncertainty Concerning Protected Areas

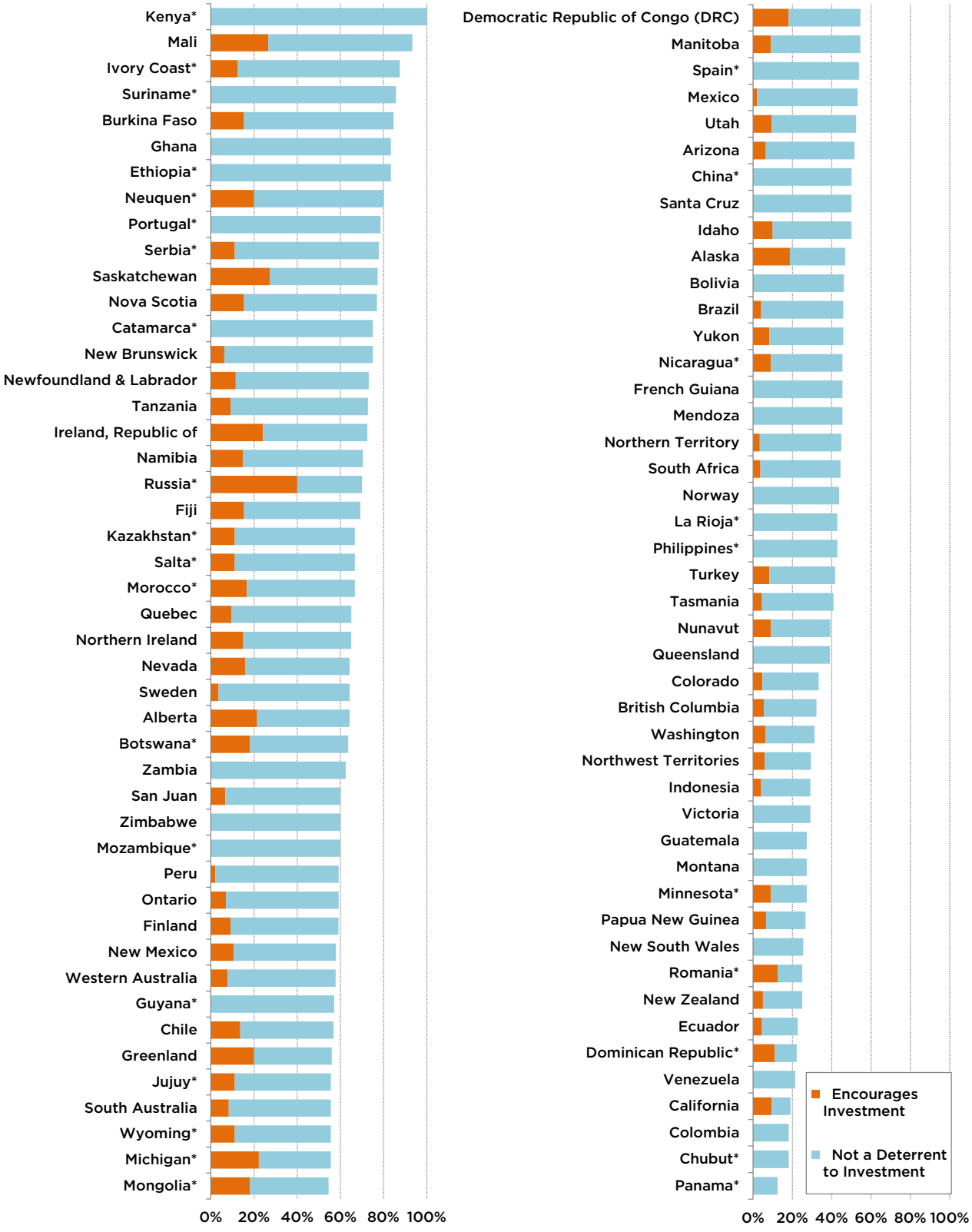


Figure 22: Quality of Infrastructure

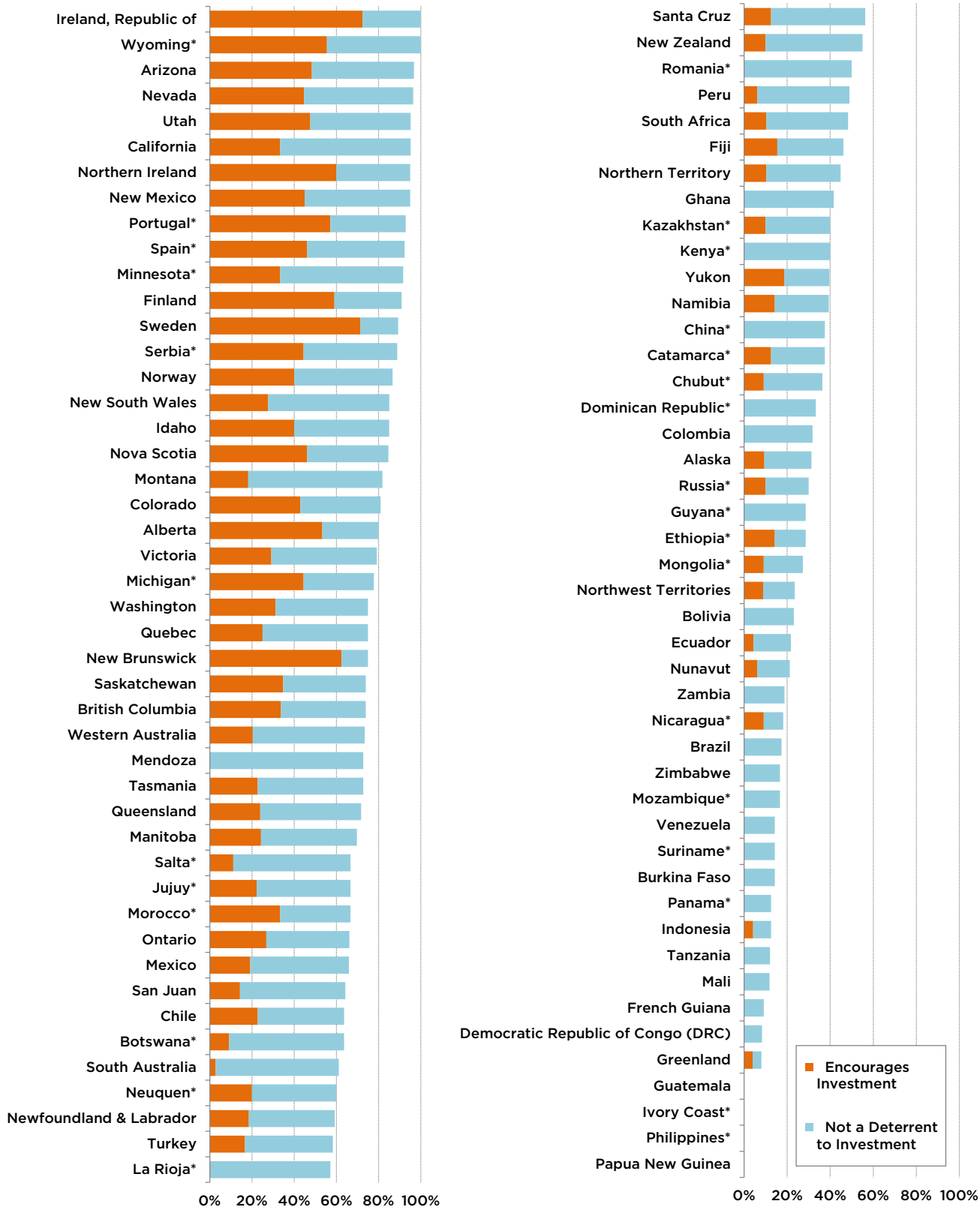


Figure 23: Socioeconomic Agreements/ Community Development Conditions

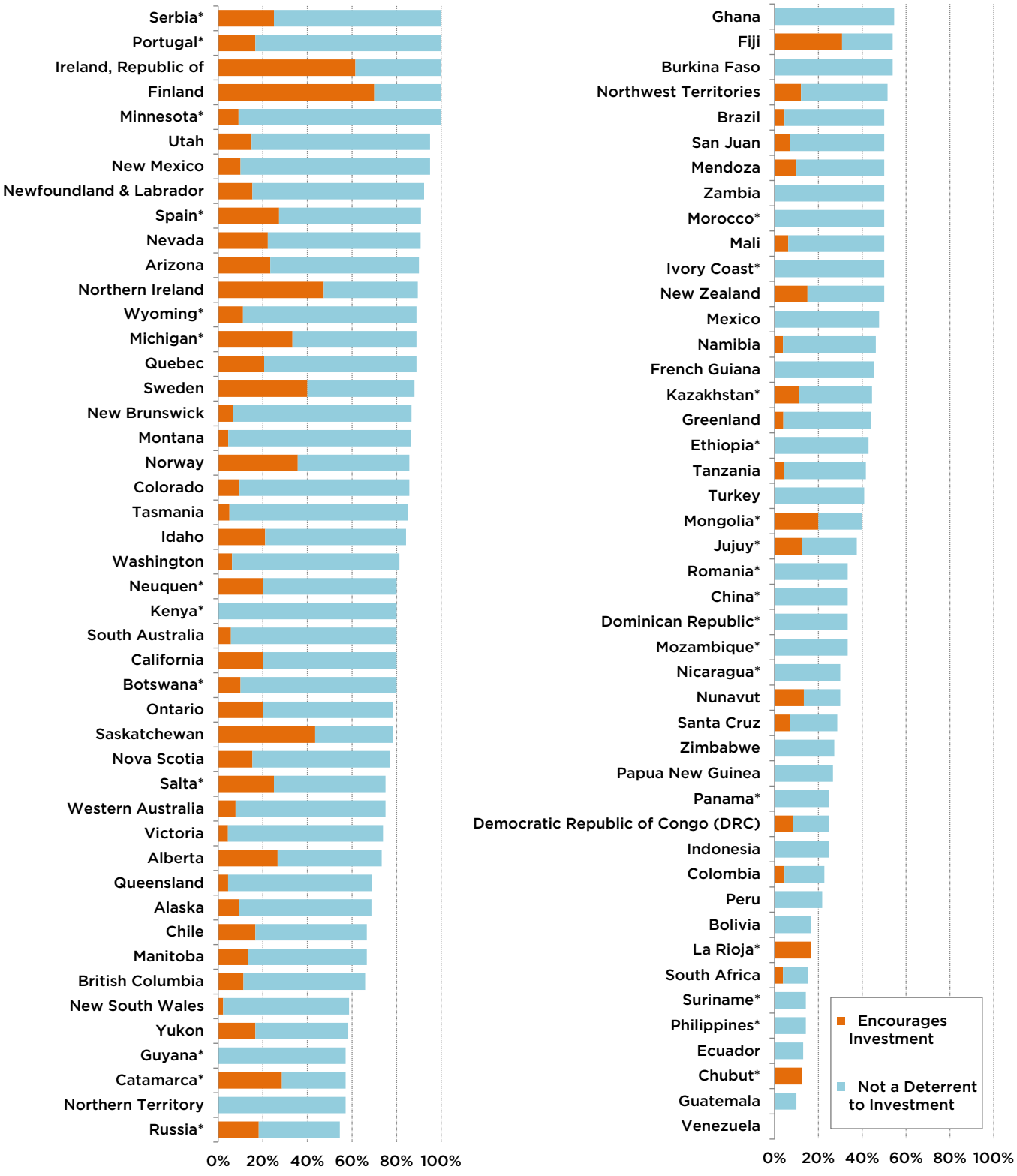


Figure 24: Trade Barriers

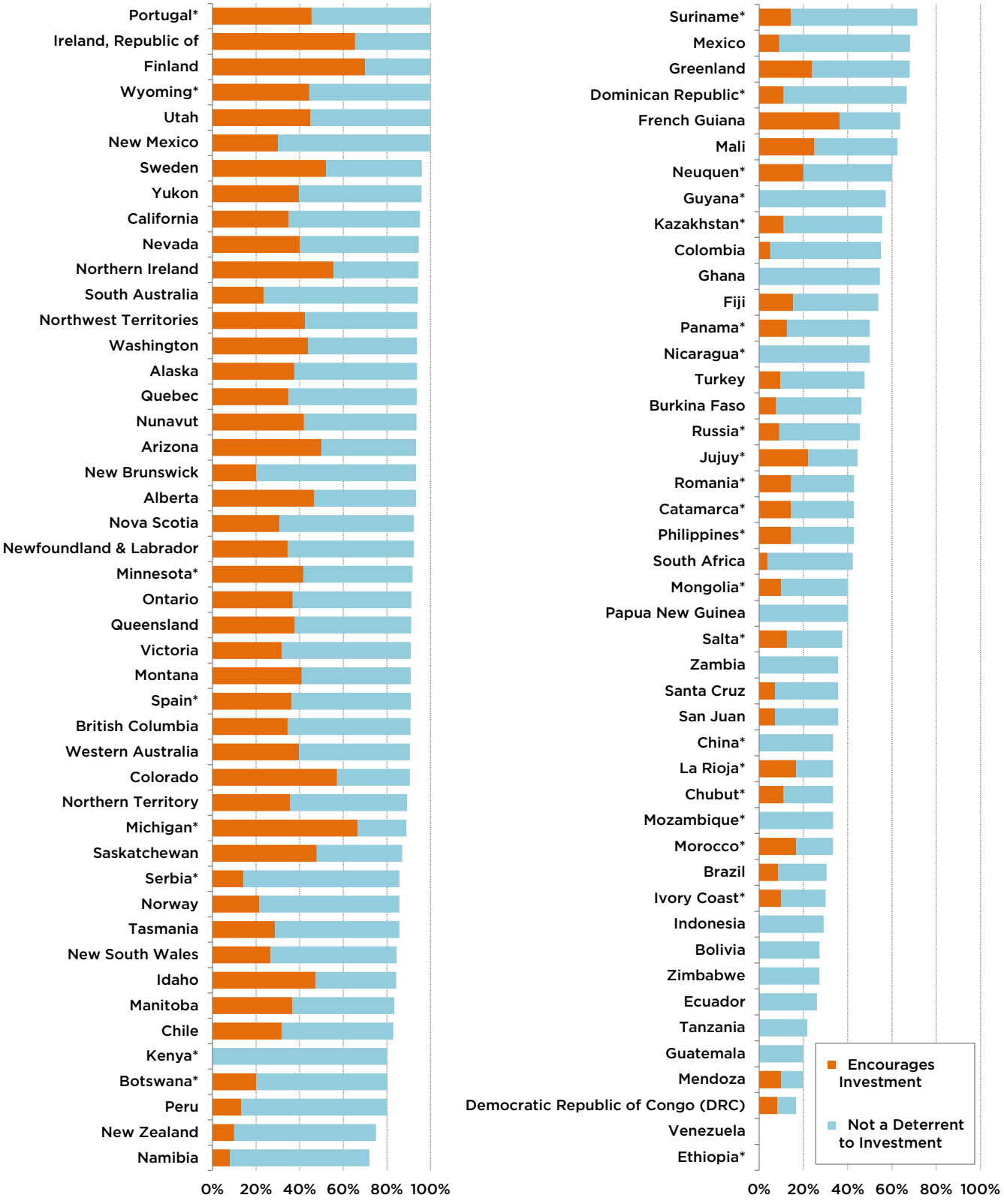


Figure 25: Political Stability

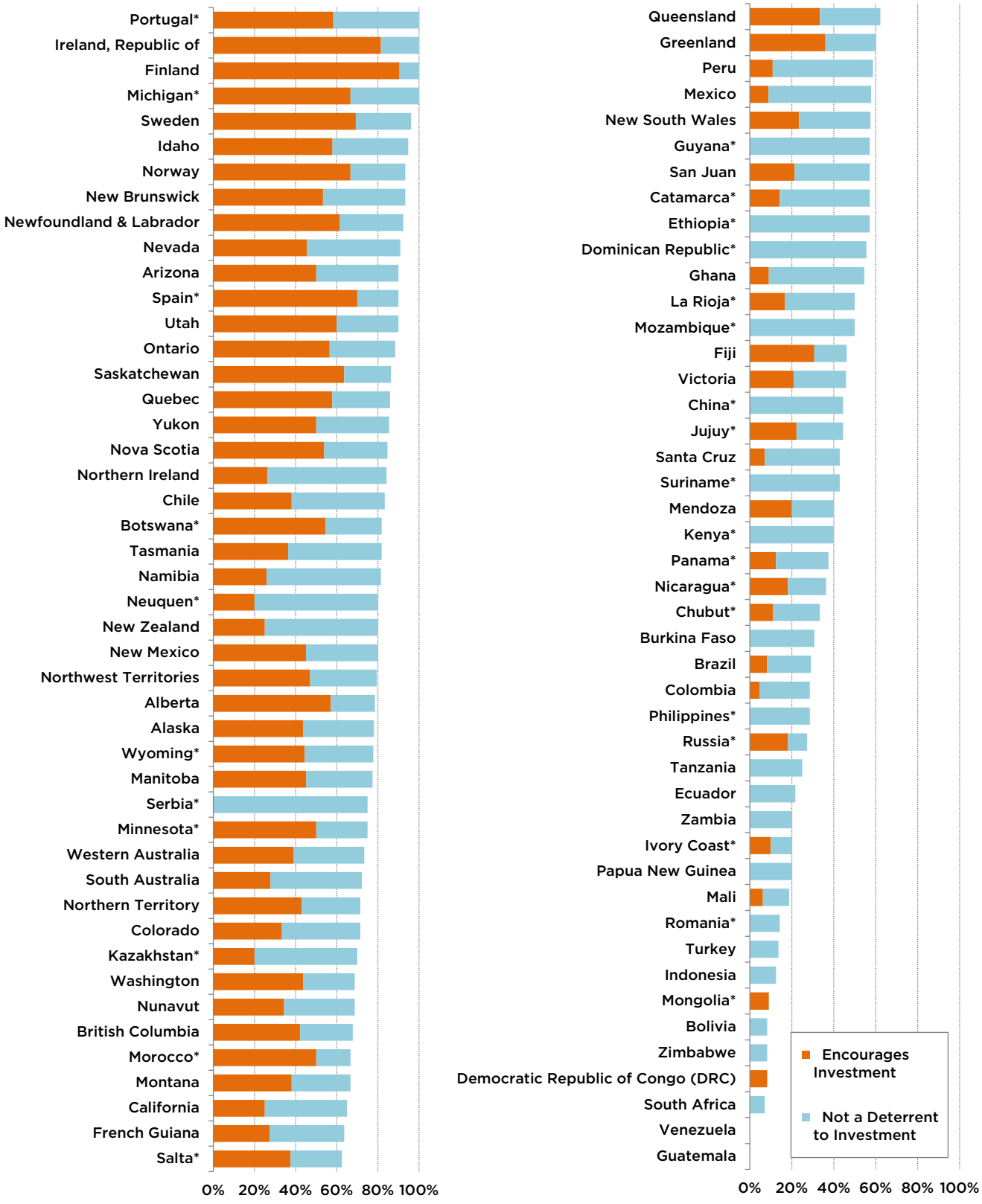


Figure 26: Labor Regulations/Employment Agreements and Labour Militancy/Work Disruptions

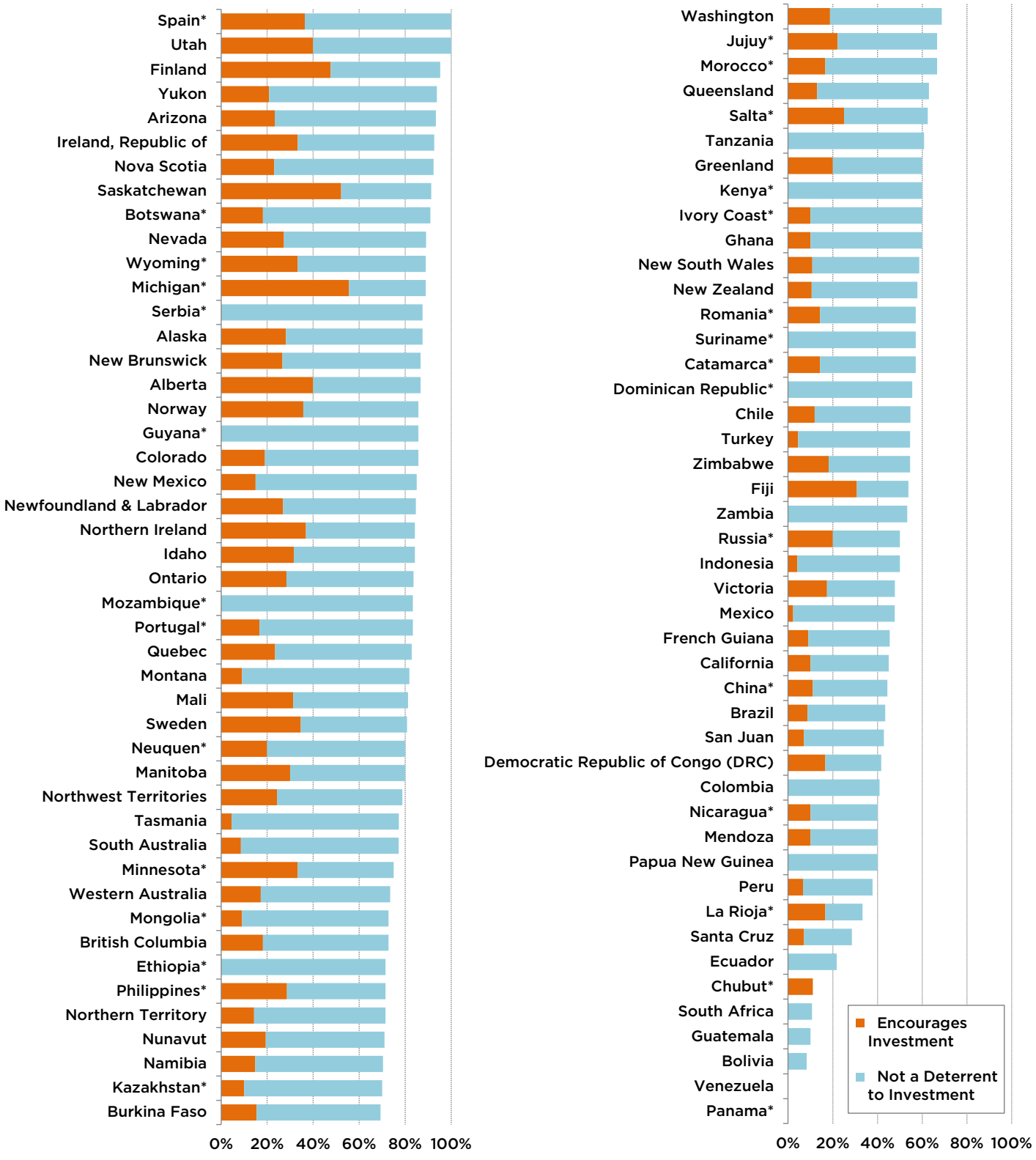


Figure 27: Geological Database

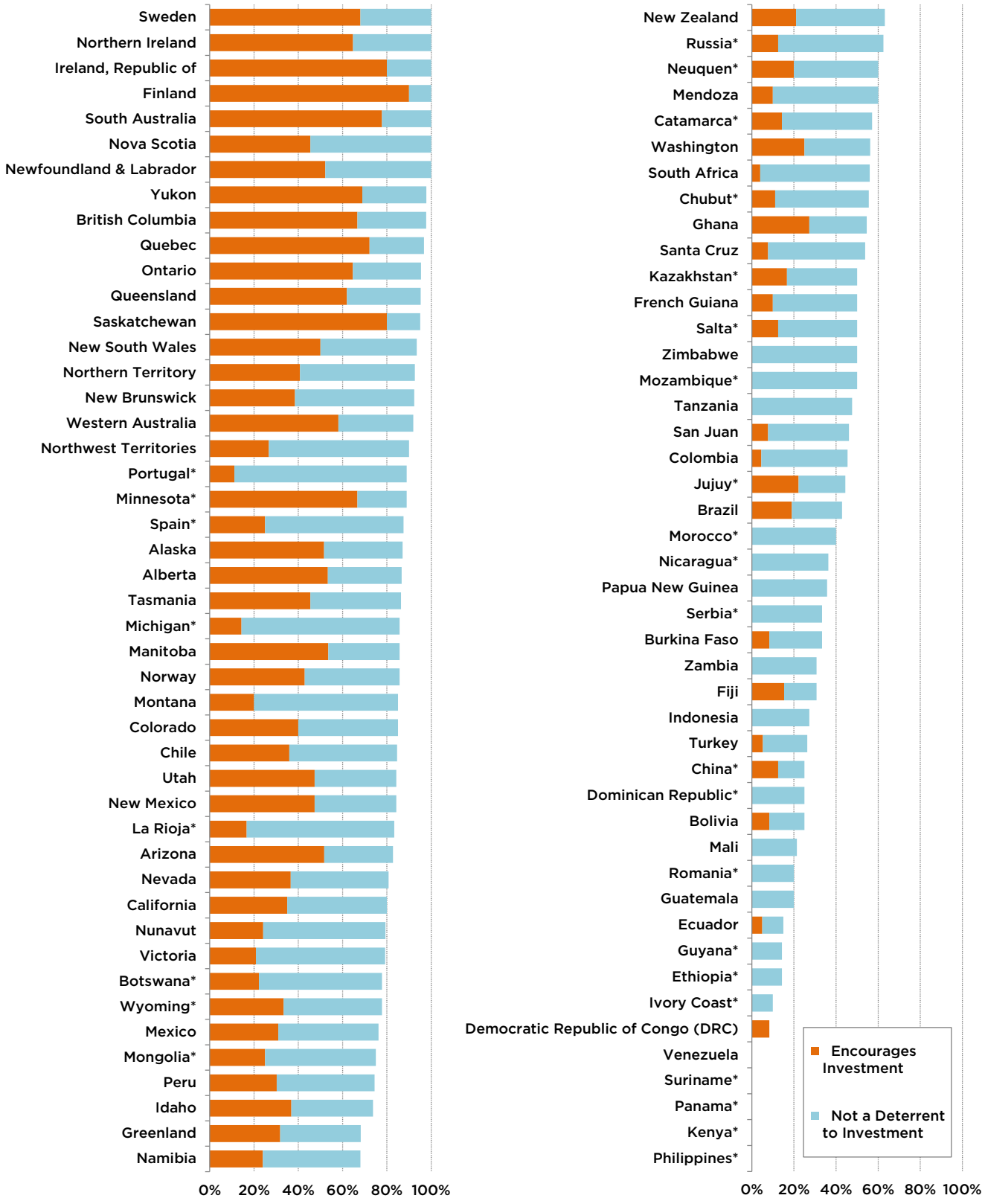


Figure 28: Security

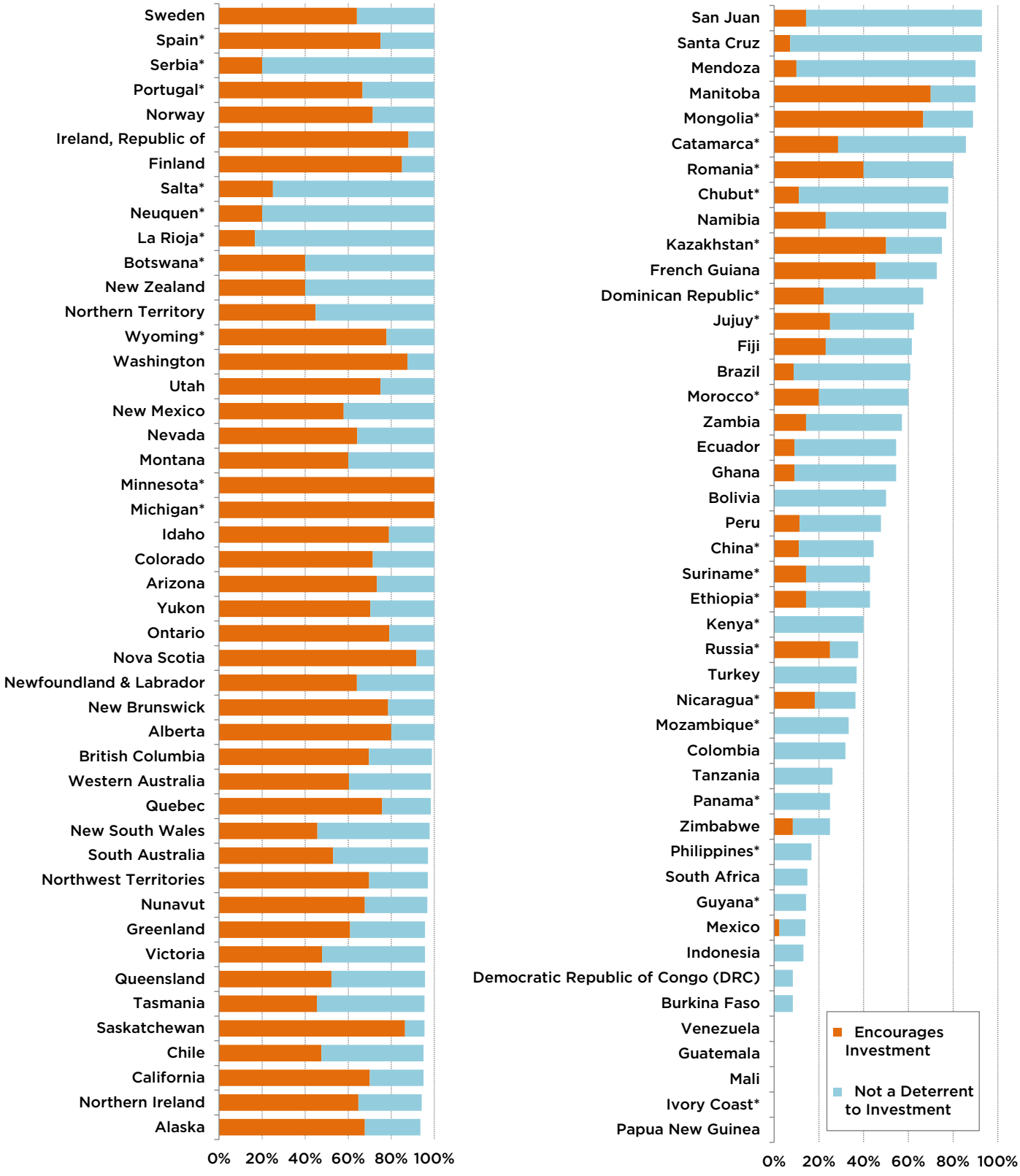
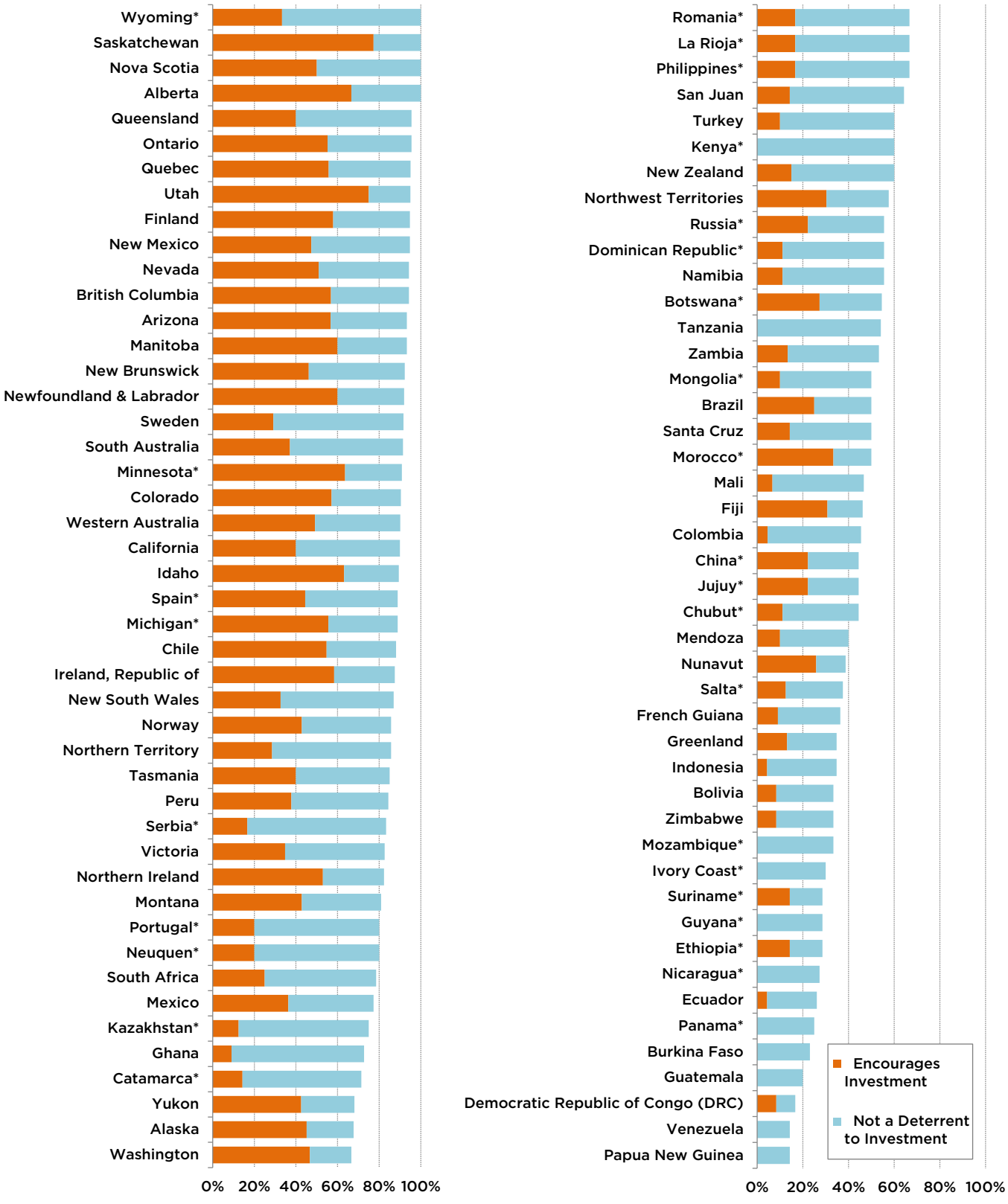


Figure 29: Availability of Labor/Skills



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