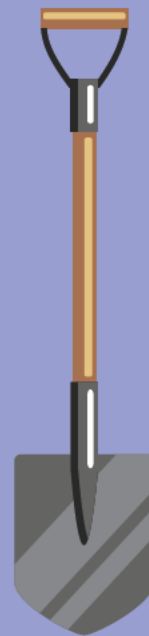
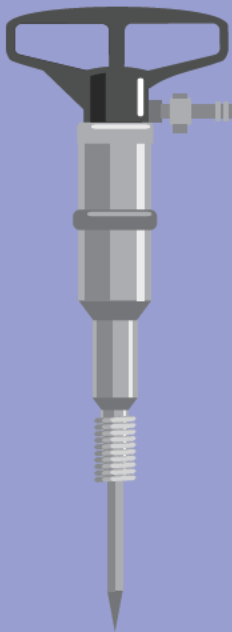


Fraser Institute Annual



SURVEY OF MINING COMPANIES 2019



Ashley Stedman, Jairo Yunis, and Elmira Aliakbari

Table of Contents

Survey information	iv
Executive Summary—2019 Mining Survey	1
Survey Methodology	3
Summary Indexes	8
Global Survey Rankings	20
Global Results	22
Overview	39
Permit Times for Mining Exploration 2019	41
Explanation of the figures	55
Acknowledgments	71
About the Authors	72
Publishing Information	73
Supporting the Fraser Institute	74
Purpose, Funding, and Independence	74
About the Fraser Institute	75
Editorial Advisory Board	76

Survey information

The Fraser Institute Annual Survey of Mining Companies was sent to approximately 2,400 explorations, development, and other mining-related companies around the world. The survey was conducted from August 20th to November 8th, 2019. The companies that participated in the survey reported exploration spending of US\$1.9 billion in 2019 and US\$1.8 billion in 2018. The 2019 results from the Permit Times for Mining Exploration chapter are included in this year's survey.

2019 Mining Survey—Executive Summary

This report presents the results of the Fraser Institute’s 2019 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 2,400 individuals between August 20th to November 8th, 2019. 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 263 responses for the survey, providing sufficient data to evaluate 76 jurisdictions. By way of comparison, 83 jurisdictions were evaluated in 2018, 91 in 2017, 104 in 2016, and 109 in 2015. 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.

Like last year’s survey, this year’s survey also includes an analysis of permit times.

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 Western Australia, which moved up from 2nd place in 2018. Finland moved into 2nd place after ranking 17th the previous year. Nevada moved down two spots from 1st in 2018 to 3rd in 2019.

Alaska ranked 4th this year, and Portugal improved from 46th in 2018 to 5th in 2019. Rounding out the top 10 are South Australia, the Republic of Ireland, Idaho, Arizona, and Sweden.

The bottom

When considering both policy and mineral potential in the Investment Attractiveness Index, Tanzania ranks as the least attractive jurisdiction in the world for investment. This year, Tanzania replaced Venezuela as the least attractive jurisdiction in the world. Also in the bottom 10 (beginning with the worst) are Argentina: Chubut, Argentina: La Rioja, Guatemala, Dominican Republic, Zambia, Venezuela, the Democratic Republic of Congo, Mali, 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 76 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

Finland displaced Saskatchewan from the top spot this year with the highest PPI score of 100. Finland was followed by the Republic of Ireland in the second place, which moved from 4th in the previous year. Along with Finland and Ireland the top 10 ranked jurisdictions are Nevada, Utah, Western Australia, Alberta, Idaho, Newfoundland and Labrador, Saskatchewan, and Arizona.

The bottom

The 10 least attractive jurisdictions for investment based on the PPI rankings (starting with the worst) are Venezuela, Zimbabwe, Tanzania, Argentina: Chubut, Argentina: Mendoza, Bolivia, the Democratic Republic of Congo (DRC), Zambia, Guinea (Conakry), and Argentina: La Rioja.

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 people in 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 76 jurisdictions from all continents except Antarctica and Asia. The 2019 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, Armenia, Belarus, Burundi, Cambodia, Central African Republic, China, Cyprus, Egypt, Eritrea, Estonia, Ethiopia, Fiji, French Guiana, Gabon, Ghana, Greece, Honduras, Hungary, India, Iraq, Israel, Ivory Coast, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Laos,

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.

Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mauritania, Michigan, Mongolia, Morocco, Mozambique, Myanmar, New Caledonia, Niger, Nigeria, Northern Ireland, Oman, Pakistan, Panama, Philippines, Poland, Republic of the Congo (Brazzaville), Romania, Russia, Saudi Arabia, Senegal, Serbia, Sierra Leone, Slovakia, Solomon Islands, South Dakota, South Korea, South Sudan, Spain, 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 2019 survey was distributed to approximately 2,400 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 20th to November 8th, 2019. We received a total of 263 responses from individuals, of whom 224 completed the full survey and 39 completed part of the survey. As figure 1 illustrates, well over half of the respondents (54 percent) are either the company

Figure 1: The Position Survey Respondents Hold in Their Company, 2019

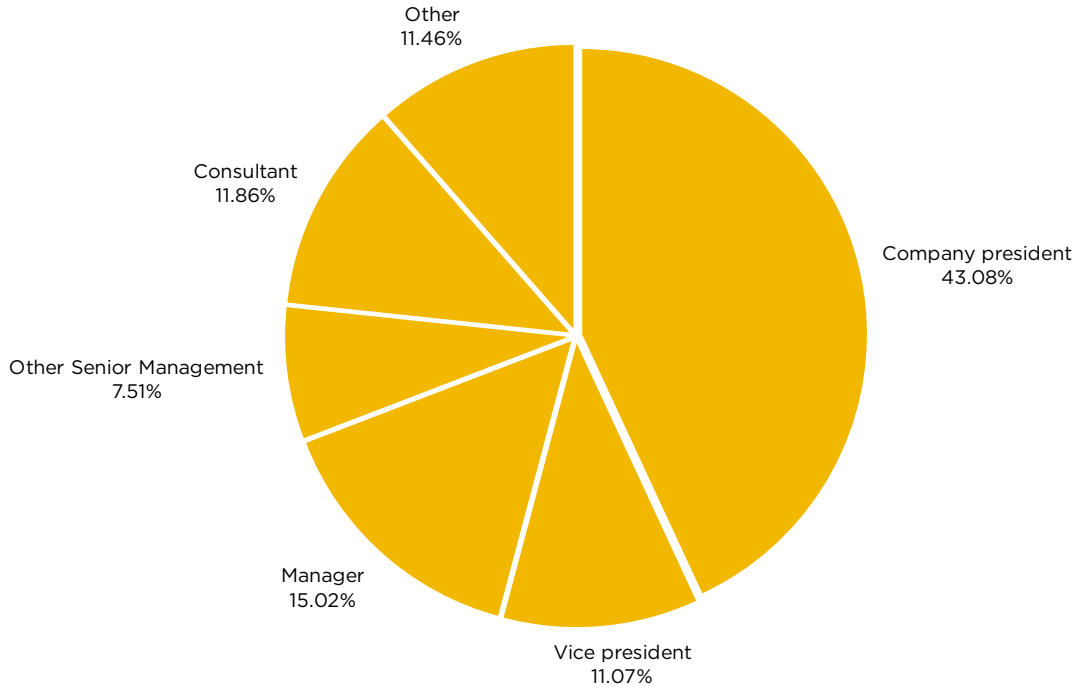
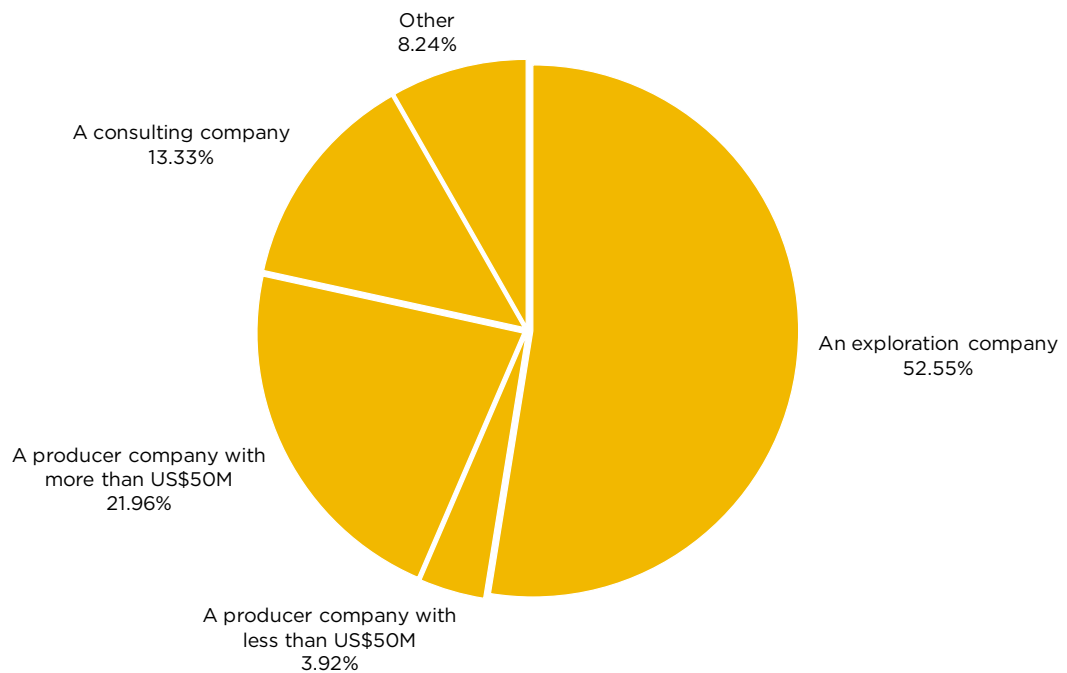


Figure 2: Company Focus as Indicated by Respondents, 2019



president or vice-president, and 23 percent are either managers or senior managers. The companies that participated in the survey reported exploration spending of US\$1.9 billion in 2019 and US\$1.8 billion in 2018 .

Figure 2 shows that over half of the 2019 survey respondents (53 percent) represent an exploration company. Twenty-six percent of the respondents represent producer companies, and the final 21 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 Indices

Investment Attractiveness Index

The Investment Attractiveness Index (table 1 and 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.

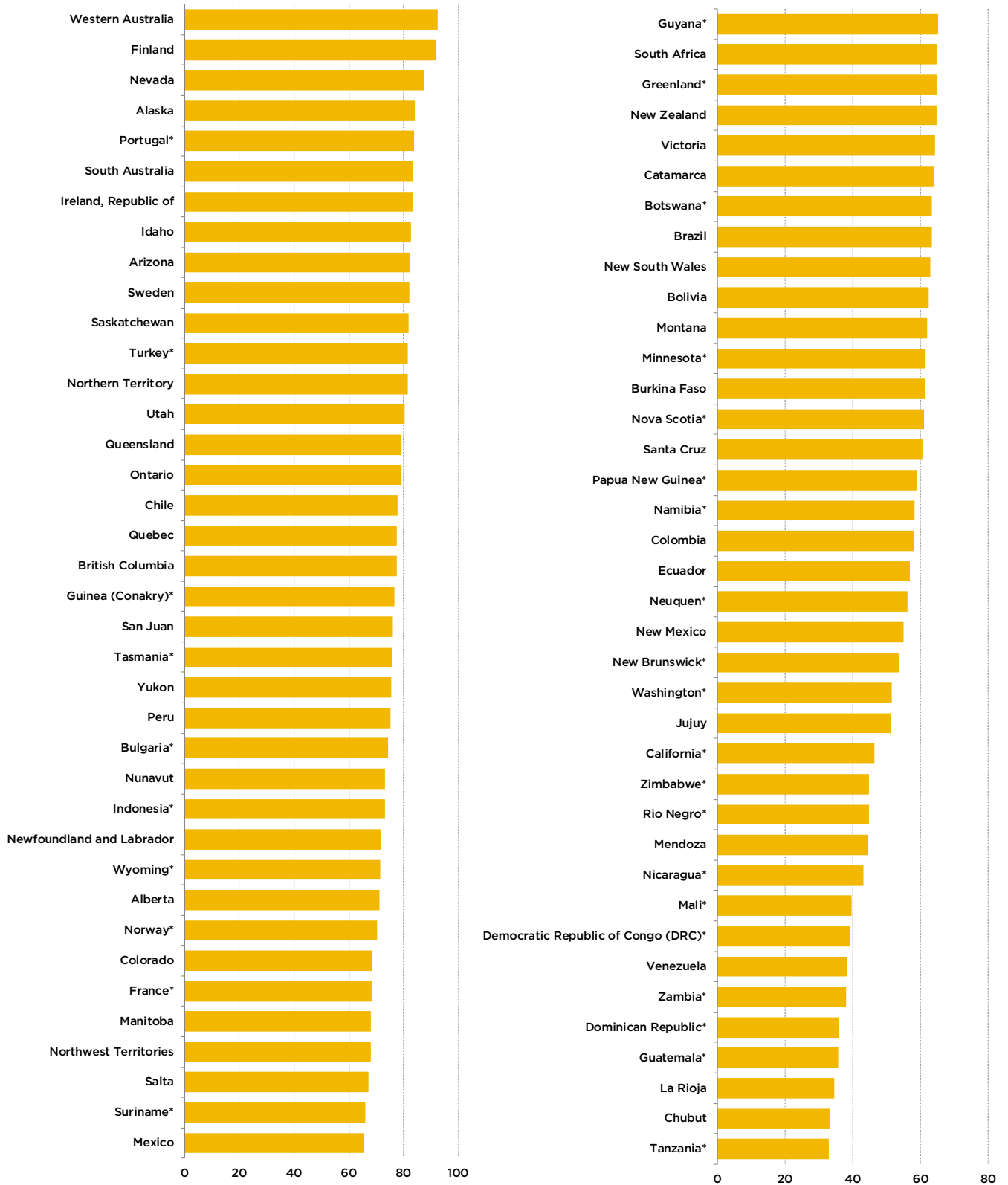
This year, as in other years, the index was weighted 40 percent by policy and 60 percent by mineral potential. These ratios are determined from a survey question that asks respondents to rate the relative importance of each factor. In most years, the split is nearly exactly 60 percent mineral and 40 percent policy. This year, the answer was 57.55 percent mineral potential and 42.45 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 (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



* Between 5 and 9 responses

Table 1: Investment Attractiveness Index

		Score					Rank				
		2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Canada	Alberta	71.11	62.12	61.77	68.55	69.71	30/76	51/83	49/91	47/104	34/109
	British Columbia	77.47	78.09	74.01	74.15	75.71	19/76	18/83	20/91	27/104	18/109
	Manitoba	68.01	81.78	74.50	89.05	75.27	34/76	12/83	18/91	2/104	19/109
	New Brunswick*	53.65	73.42	68.87	69.45	66.51	60/76	30/83	30/91	40/104	45/109
	Newfoundland & Labrador	71.73	82.14	80.58	78.94	73.55	28/76	11/83	11/91	16/104	25/109
	Northwest Territories	67.93	82.46	73.20	75.77	69.48	35/76	10/83	21/91	21/104	35/109
	Nova Scotia*	61.01	59.38	60.41	66.80	59.51	52/76	57/83	56/91	52/104	59/109
	Nunavut	73.24	80.59	70.58	72.52	74.37	26/76	15/83	26/91	31/104	23/109
	Ontario	79.29	78.07	82.15	78.65	78.02	16/76	20/83	7/91	18/104	15/109
	Quebec	77.49	88.38	83.08	85.02	80.80	18/76	4/83	6/91	6/104	8/109
	Saskatchewan	81.75	90.00	87.18	89.91	85.73	11/76	3/83	2/91	1/104	2/109
	Yukon	75.56	83.35	79.67	79.61	79.16	23/76	9/83	13/91	15/104	12/109
United States	Alaska	84.17	86.08	80.74	80.27	83.96	4/76	5/83	10/91	14/104	6/109
	Arizona	82.43	83.94	81.11	84.91	76.33	9/76	8/83	9/91	7/104	17/109
	California*	46.44	56.59	56.84	67.81	59.26	63/76	61/83	62/91	49/104	61/109
	Colorado	68.46	69.28	71.38	68.85	72.28	32/76	35/83	23/91	46/104	28/109
	Idaho	82.78	79.89	70.12	81.34	64.44	8/76	16/83	28/91	12/104	50/109
	Minnesota*	61.52	70.41	68.89	74.18	74.46	50/76	34/83	29/91	26/104	21/109
	Montana	61.87	72.50	65.90	71.16	68.27	49/76	31/83	38/91	35/104	40/109
	Nevada	87.54	92.99	85.45	87.48	85.39	3/76	1/83	3/91	4/104	3/109
	New Mexico	54.89	73.98	66.38	75.03	60.95	59/76	28/83	37/91	24/104	58/109
	Utah	80.51	84.29	78.19	81.39	80.31	14/76	7/83	15/91	11/104	9/109
	Washington*	51.55	52.93	49.88	48.58	66.13	61/76	71/83	76/91	84/104	46/109
Wyoming*	71.41	74.45	58.35	75.26	78.07	29/76	26/83	60/91	23/104	14/109	
Australia	New South Wales	62.78	65.56	62.31	61.84	68.83	47/76	42/83	46/91	62/104	38/109
	Northern Territory	81.43	75.93	70.47	77.61	81.90	13/76	23/83	27/91	20/104	7/109
	Queensland	79.33	81.67	80.53	81.40	77.79	15/76	13/83	12/91	10/104	16/109
	South Australia	83.31	75.46	79.30	81.03	79.83	6/76	24/83	14/91	13/104	10/109
	Tasmania*	75.70	60.31	61.69	64.27	71.34	22/76	55/83	50/91	56/104	30/109
	Victoria	64.27	60.74	51.82	63.96	59.16	43/76	54/83	71/91	57/104	62/109
	Western Australia	92.45	91.47	83.56	88.88	87.35	1/76	2/83	5/91	3/104	1/109
Oceania	Indonesia*	73.09	63.10	66.84	50.16	65.16	27/76	47/83	35/91	78/104	49/109
	New Zealand	64.59	66.47	60.51	57.47	66.73	42/76	40/83	55/91	67/104	44/109
	Papua New Guinea*	58.84	66.32	63.91	63.48	67.15	54/76	41/83	40/91	59/104	43/109
Africa	Botswana*	63.39	71.66	63.14	77.62	68.32	45/76	32/83	43/91	19/104	39/109
	Burkina Faso	61.19	**	52.64	68.18	71.88	51/76	**	68/91	48/104	29/109
	Democratic Republic of Congo (DRC)*	39.20	54.92	61.51	72.80	59.37	69/76	67/83	51/91	29/104	60/109
	Guinea (Conakry)*	76.64	**	**	**	38.28	20/76	**	**	**	103/109
	Mali*	39.53	62.18	70.74	69.32	50.84	68/76	50/83	25/91	42/104	83/109

Table 1 (continued)

		Score					Rank				
		2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
	Namibia*	58.22	56.66	60.67	66.11	69.78	55/76	60/83	54/91	53/104	33/109
	South Africa	64.79	65.30	62.06	53.62	58.04	40/76	43/83	48/91	74/104	66/109
	Tanzania*	32.82	55.04	46.79	60.45	57.46	76/76	66/83	79/91	64/104	69/109
	Zambia*	37.90	63.60	59.34	72.78	57.48	71/76	45/83	58/91	30/104	68/109
	Zimbabwe*	44.81	56.57	54.32	41.84	41.45	64/76	62/83	66/91	96/104	98/109
Argentina	Catamarca	63.93	68.39	53.91	50.38	42.29	44/76	37/83	67/91	77/104	96/109
	Chubut	33.13	54.83	30.54	31.47	37.75	75/76	69/83	88/91	101/104	104/109
	Jujuy	51.21	52.61	58.57	24.83	49.57	62/76	72/83	59/91	104/104	86/109
	La Rioja	34.48	48.70	46.06	33.94	28.86	74/76	75/83	80/91	99/104	109/109
	Mendoza	44.46	50.15	29.29	35.51	38.51	66/76	73/83	89/91	98/104	101/109
	Neuquen*	55.99	31.77	60.00	26.13	45.17	58/76	82/83	57/91	103/104	93/109
	Rio Negro*	44.76	**	**	**	38.75	65/76	**	**	**	100/109
	Salta	67.19	54.09	62.51	69.25	56.69	36/76	70/83	45/91	43/104	71/109
	San Juan	76.20	55.90	63.21	63.69	54.97	21/76	64/83	42/91	58/104	75/109
	Santa Cruz	60.49	62.46	60.98	54.80	42.59	53.76	49/83	52/91	72/104	95/109
Latin America and the Caribbean Basin	Bolivia	62.36	49.53	33.68	48.74	44.56	48/76	74/83	86/91	83/104	94/109
	Brazil	63.36	58.63	55.12	62.51	61.45	46/76	58/83	65/91	61/104	56/109
	Chile	77.72	84.90	81.51	69.66	79.81	17/76	6/83	8/91	39/104	11/109
	Colombia	57.99	62.58	56.10	59.52	62.75	56/76	48/83	64/91	65/104	55/109
	Dominican Republic*	35.85	45.77	51.33	42.82	52.89	72/76	76/83	72/91	92/104	81/109
	Ecuador	56.80	59.79	52.09	50.38	45.36	57/76	56/83	70/91	76/104	92/109
	Guatemala*	35.57	41.84	26.96	46.24	41.77	73/76	80/83	91/91	88/104	97/109
	Guyana*	65.17	67.27	50.42	68.97	50.91	39/76	39/83	74/91	45/104	82/109
	Mexico	65.43	73.91	63.03	67.06	68.93	38/76	29/83	44/91	50/104	37/109
	Nicaragua*	43.03	37.19	43.10	55.02	58.38	67/76	81/83	82/91	71/104	65/109
	Peru	75.14	81.55	74.26	73.47	69.26	24/76	14/83	19/91	28/104	36/109
	Suriname*	66.13	68.81	57.43	**	**	37/76	36/83	61/91	**	**
	Venezuela	38.18	27.69	36.43	27.86	31.88	70/76	83/83	85/91	102/104	108/109
Europe	Bulgaria	74.24	**	**	51.31	58.54	25/76	**	**	75/104	63/109
	Finland	92.00	79.04	89.04	85.56	84.00	2/76	17/83	1/91	5/104	5/109
	France*	68.44	**	**	50.10	53.41	33/76	**	**	79/104	80/109
	Greenland*	64.68	55.93	66.97	64.63	73.43	41/76	63/83	34/91	55/104	26/109
	Ireland, Republic of	83.22	78.07	84.40	83.13	85.00	7/76	19/83	4/91	9/104	4/109
	Norway*	70.26	61.65	63.24	70.59	70.68	31/76	53/83	41/91	37/104	32/109
	Portugal*	83.92	63.12	67.80	70.86	74.40	5/76	46/83	32/91	36/104	22/109
	Sweden	82.00	77.89	76.88	84.26	78.58	10/76	21/83	16/91	8/104	13/109
	Turkey*	81.60	56.72	52.60	60.67	64.04	12/76	59/83	69/91	63/104	52/109

Notes:

* Between 5 and 9 responses on one or more questions

** 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.

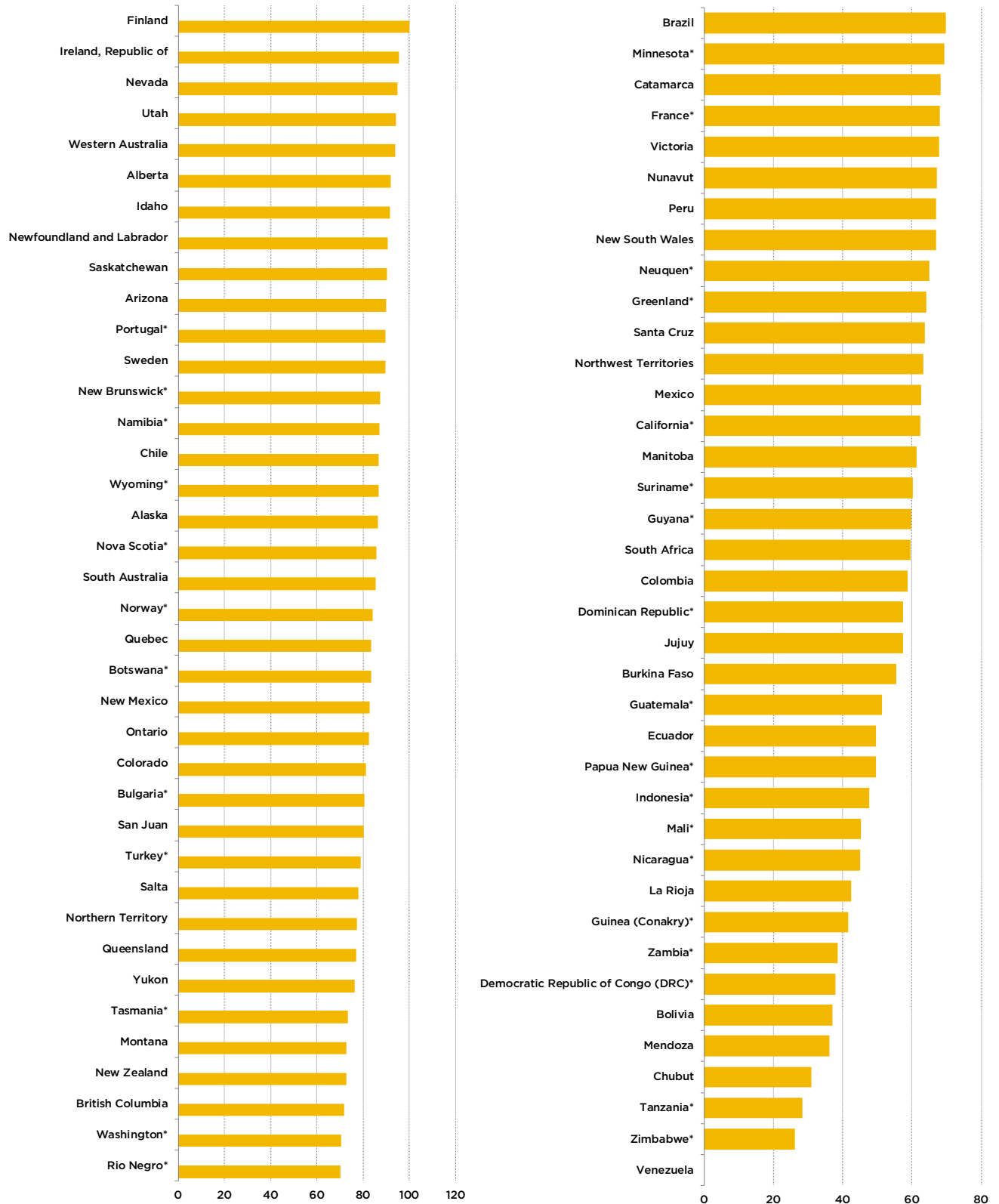
The Policy Perception Index is a composite index that captures the opinions of managers and executives on the effects of policies in jurisdictions with which they are familiar. All survey policy questions (i.e., uncertainty concerning the administration, interpretation, and enforcement of existing regulations; 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 $\frac{V_{max} - V_i}{V_{max} - V_{min}} \times 100$

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.

Figure 4: Policy Perception Index



* Between 5 and 9 responses

Table 2: Policy Perception Index

		Score					Rank				
		2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Canada	Alberta	92.05	94.37	84.42	83.89	92.24	6/76	14/83	16/91	28/104	7/109
	British Columbia	71.80	75.98	73.80	76.57	75.28	36/76	44/83	36/91	41/104	41/109
	Manitoba	61.42	83.29	78.76	96.62	88.90	53/76	33/83	27/91	6/104	13/109
	New Brunswick*	87.24	96.04	86.47	94.21	91.27	13/76	9/83	13/91	8/104	9/109
	Newfoundland & Labrador	90.69	92.85	87.46	89.01	88.24	8/76	18/83	10/91	18/104	15/109
	Northwest Territories	63.24	77.16	69.37	72.77	64.46	50/76	42/83	42/91	48/104	58/109
	Nova Scotia*	85.87	94.89	82.28	91.99	87.85	18/76	11/83	24/91	11/104	17/109
	Nunavut	67.19	74.55	67.58	68.80	68.85	44/76	45/83	44/91	58/104	54/109
	Ontario	82.46	84.87	82.96	84.69	79.48	24/76	30/83	20/91	26/104	31/109
	Quebec	83.57	95.11	87.47	89.82	85.02	21/76	10/83	9/91	17/104	22/109
	Saskatchewan	90.25	100.00	91.81	98.87	95.10	9/76	1/83	3/91	2/104	4/109
Yukon	76.40	86.87	82.69	84.81	76.66	32/76	24/83	22/91	25/104	39/109	
United States	Alaska	86.52	85.48	76.85	85.42	84.89	17/76	26/83	29/91	23/104	23/109
	Arizona	89.83	91.67	85.28	90.64	87.88	10/76	19/83	14/91	14/104	16/109
	California*	62.52	69.60	59.61	57.04	63.48	52/76	49/83	61/91	74/104	59/109
	Colorado	81.16	85.16	74.87	73.02	78.06	25/76	29/83	35/91	47/104	36/109
	Idaho	91.57	94.72	84.52	90.86	86.10	7/76	13/83	15/91	13/104	19/109
	Minnesota*	69.43	90.31	76.77	78.31	82.30	40/76	20/83	30/91	37/104	28/109
	Montana	72.87	81.24	66.06	71.16	77.58	34/76	35/83	47/91	52/104	37/109
	Nevada	95.00	99.31	90.50	97.64	94.07	3/76	2/83	5/91	5/104	6/109
	New Mexico	82.68	93.87	82.61	81.89	77.37	23/76	15/83	23/91	30/104	38/109
	Utah	94.14	96.25	86.73	88.09	89.47	4/76	8/83	12/91	20/104	11/109
	Washington*	70.54	77.77	69.71	63.13	75.32	37/76	40/83	41/91	67/104	40/109
Wyoming*	86.85	93.83	87.55	94.40	97.09	16/76	16/83	8/91	7/104	2/109	
Australia	New South Wales	66.96	71.60	63.21	63.91	69.12	46/76	47/83	53/91	66/104	51/109
	Northern Territory	77.26	77.32	75.31	85.70	85.15	30/76	41/83	33/91	22/104	21/109
	Queensland	76.91	84.64	75.78	78.50	79.19	31/76	31/83	31/91	36/104	32/109
	South Australia	85.55	89.65	80.39	87.05	85.50	19/76	22/83	26/91	21/104	20/109
	Tasmania*	73.33	84.11	75.65	81.51	78.34	33/76	32/83	32/91	32/104	34/109
	Victoria	67.81	76.85	63.93	73.80	72.91	43/76	43/83	52/91	42/104	43/109
	Western Australia	93.99	96.68	83.51	93.20	91.53	5/76	5/83	17/91	9/104	8/109
Oceania	Indonesia*	47.74	54.64	39.92	29.93	40.41	64/76	70/83	84/91	99/104	91/109
	New Zealand	72.83	85.40	64.43	77.51	79.83	35/76	27/83	50/91	39/104	30/109
	Papua New Guinea	49.60	60.81	47.27	47.99	51.96	63/76	61/83	77/91	83/104	77/109
Africa	Botswana*	83.48	94.77	82.84	91.79	88.29	22/76	12/83	21/91	12/104	14/109
	Burkina Faso	55.48	**	62.84	72.37	71.90	60/76	**	55/91	51/104	44/109
	Democratic Republic of Congo (DRC)*	38.00	34.18	35.03	60.58	42.74	70/76	82/83	87/91	70/104	87/109
	Guinea (Conakry)*	41.60	**	**	**	35.70	68/76	**	**	**	97/109
	Mali*	45.27	60.00	66.86	65.48	60.86	65/76	63/83	46/91	61/104	65/109

Table 2 continued

		Score					Rank				
		2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
	Namibia*	87.22	80.71	71.11	77.77	80.70	14/76	36/83	39/91	38/104	29/109
	South Africa	59.71	64.57	42.66	47.50	51.91	56/76	56/83	81/91	84/104	78/109
	Tanzania	28.47	56.83	45.11	66.13	62.12	74/76	66/83	78/91	59/104	63/109
	Zambia*	38.50	65.25	53.34	73.61	62.69	69/76	53/83	71/91	43/104	61/109
	Zimbabwe*	26.31	47.68	29.54	18.06	24.67	75/76	76/83	89/91	102/104	106/109
Argentina	Catamarca	68.17	79.31	70.50	59.28	44.35	41/76	38/83	40/91	73/104	85/109
	Chubut	30.89	37.07	26.34	31.79	25.13	73/76	80/83	90/91	98/104	105/109
	Jujuy	57.44	56.53	54.75	37.07	42.68	59/76	67/83	69/91	93/104	88/109
	La Rioja	42.44	46.76	52.66	37.96	22.15	67/76	77/83	73/91	92/104	107/109
	Mendoza	36.14	50.37	43.22	34.23	35.56	72/76	73/83	80/91	96/104	98/109
	Neuquen*	64.98	34.42	74.99	50.33	25.43	47/76	81/83	34/91	81/104	104/109
	Rio Negro*	70.23	**	**	**	32.58	38/76	**	**	**	101/109
	Salta	77.97	67.72	71.89	83.13	62.30	29/76	51/83	38/91	29/104	62/109
	San Juan	80.21	64.76	66.96	73.50	53.61	27/76	55/83	45/91	46/104	72/109
	Santa Cruz	63.73	65.09	61.38	62.00	40.86	49/76	54/83	58/91	69/104	90/109
Latin America and the Caribbean Basin	Bolivia	37.15	48.81	40.45	42.16	36.40	71/76	75/83	83/91	87/104	95/109
	Brazil	69.75	64.43	55.66	64.97	56.57	39/76	57/83	66/91	64/104	69/109
	Chile	86.86	88.61	80.55	78.68	83.50	15/76	23/83	25/91	35/104	26/109
	Colombia	58.73	58.96	44.80	45.68	53.75	57/76	65/83	79/91	86/104	70/109
	Dominican Republic*	57.48	64.42	61.66	62.04	65.55	58/76	58/83	57/91	68/104	57/109
	Ecuador	49.69	51.64	42.18	34.28	43.41	62/76	72/83	82/91	95/104	86/109
	Guatemala*	51.42	46.26	29.89	40.59	46.09	61/76	78/83	88/91	89/104	83/109
	Guyana*	59.80	68.18	61.76	72.44	59.76	55/76	50/83	56/91	50/104	67/109
	Mexico	62.72	71.32	65.13	69.97	71.14	51/76	48/83	49/91	53/104	47/109
	Nicaragua*	45.06	55.47	55.24	68.81	53.64	66/76	68/83	68/91	57/104	71/109
Peru	67.02	79.66	68.99	69.54	66.80	45/76	37/83	43/91	54/104	55/109	
Suriname*	60.33	74.52	57.87	**	**	54/76	46/83	63/91	**	**	
Venezuela	0.00	0.00	0.00	0.00	0.00	76/76	83/83	91/91	104/104	109/109	
Europe	Bulgaria	80.60	**	**	69.34	71.35	26/76	**	**	56/104	46/109
	Finland	100.00	99.16	98.84	97.64	94.83	1/76	3/83	2/91	4/104	5/109
	France*	67.97	**	**	65.25	70.07	42/76	**	**	62/104	49/109
	Greenland*	64.20	55.46	63.07	65.14	83.58	48/76	69/83	54/91	63/104	25/109
	Ireland, Republic of	95.54	97.68	100.00	100.00	100.00	2/76	4/83	1/91	1/104	1/109
	Norway*	84.00	85.38	77.75	88.98	89.19	20/76	28/83	28/91	19/104	12/109
	Portugal*	89.81	93.50	87.01	90.30	89.56	11/76	17/83	11/91	16/104	10/109
	Sweden	89.62	96.28	91.11	98.15	96.45	12/76	7/83	4/91	3/104	3/109
	Turkey*	78.99	59.98	52.74	54.61	71.46	28/76	64/83	72/91	78/104	45/109

Notes:

* Between 5 and 9 responses on one or more questions

** Not Available

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.

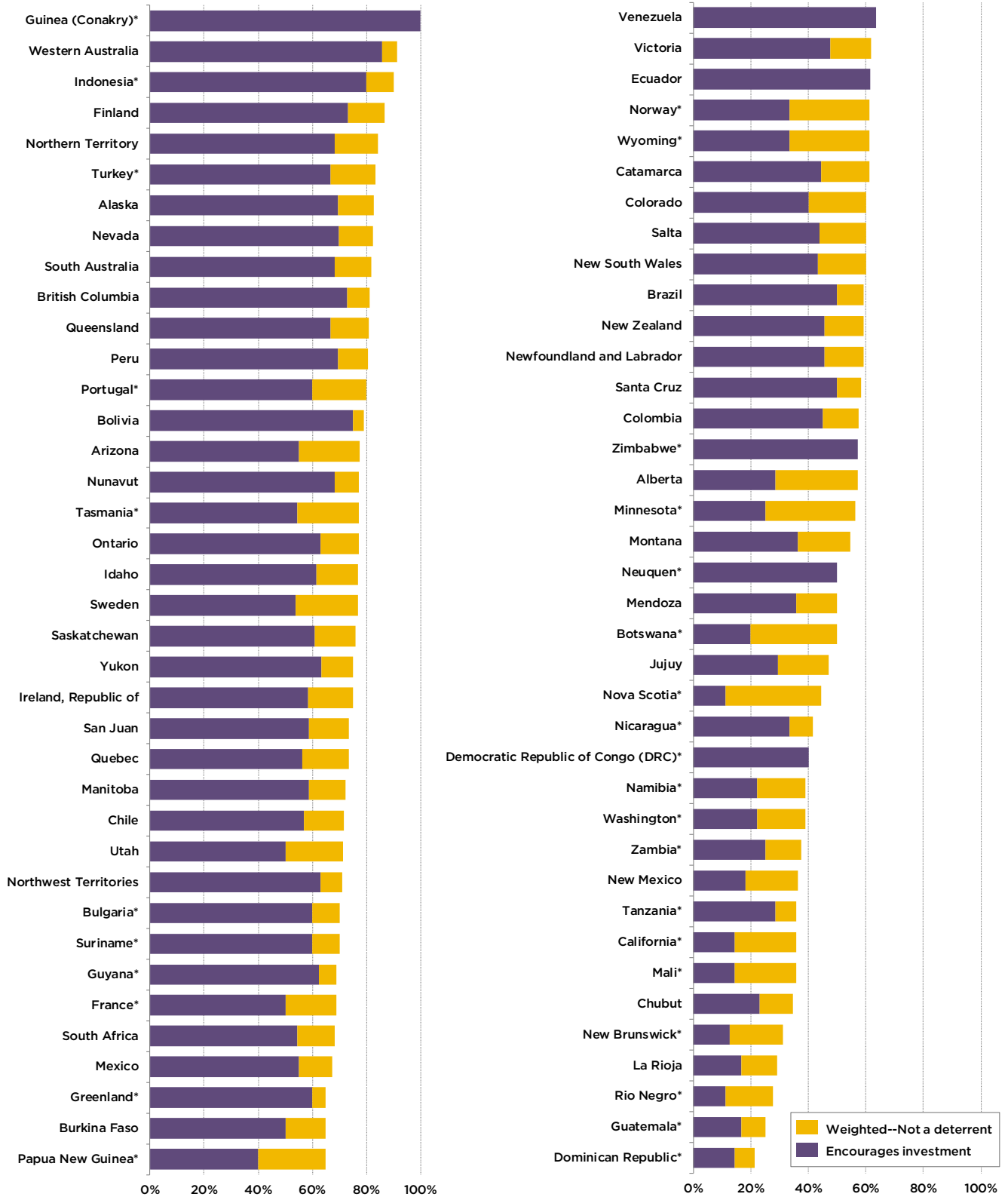
The “Best Practices Mineral Potential” index ranks the jurisdictions based on which region’s geology “encourages exploration investment” or is “not a deterrent to investment.” Since the “Encourages” response expresses a much more positive attitude to investment than “Not a Deterrent,” in calculating these indexes we give “Not a Deterrent” half the weight of “Encourages.” For example, the “Best Practices Mineral Potential” for Saskatchewan was calculated by adding the percent of respondents who rated mineral potential as “Encourages Investment” (61 percent) with the 30 percent who responded “Not a Deterrent to Investment,” which was half weighted at 15 percent. Thus, in the 2019 survey Saskatchewan has a score of 76, 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



* Between 5 and 9 responses

Table 3: Best Practices Mineral Potential Index

		Score					Rank				
		2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Canada	Alberta	57.14	40.63	46.67	58.33	54.69	54/76	74/83	69/91	61/104	70/109
	British Columbia	81.25	79.49	74.16	72.53	76.00	10/76	13/83	22/91	24/104	17/109
	Manitoba	72.41	80.77	71.67	84.00	66.18	26/76	11/83	28/91	2/104	42/109
	New Brunswick*	31.25	58.33	57.14	52.94	50.00	72/76	49/83	52/91	74/104	78/109
	Newfoundland & Labrador	59.09	75.00	76.00	72.22	63.75	50/76	18/83	18/91	25/104	48/109
	Northwest Territories	71.05	86.00	75.76	77.78	72.83	29/76	4/83	19/91	11/104	21/109
	Nova Scotia*	44.44	35.71	45.83	50.00	40.63	61/76	79/83	70/91	76/104	99/109
	Nunavut	77.27	84.62	72.58	75.00	78.05	16/76	5/83	25/91	18/104	8/109
	Ontario	77.17	73.53	81.62	74.62	77.04	18/76	20/83	9/91	22/104	13/109
	Quebec	73.44	83.90	80.16	81.82	77.98	25/76	6/83	10/91	5/104	9/109
	Saskatchewan	76.09	83.33	84.09	83.93	79.49	21/76	7/83	2/91	3/104	7/109
	Yukon	75.00	81.00	77.66	76.14	80.83	22/76	10/83	16/91	16/104	4/109
United States	Alaska	82.61	86.49	83.33	76.83	83.33	7/76	3/83	5/91	15/104	2/109
	Arizona	77.50	78.79	78.33	81.08	68.63	15/76	14/83	13/91	6/104	31/109
	California*	35.71	47.92	55.00	75.00	56.45	69/76	67/83	57/91	19/104	65/109
	Colorado	60.00	58.70	69.05	66.07	68.42	45/76	48/83	31/91	41/104	33/109
	Idaho	76.92	70.00	60.53	75.00	50.00	19/76	21/83	46/91	20/104	78/109
	Minnesota*	56.25	57.14	63.64	71.43	69.23	55/76	52/83	37/91	31/104	28/109
	Montana	54.55	66.67	65.79	71.15	62.07	56/76	28/83	35/91	34/104	52/109
	Nevada	82.56	88.78	82.08	80.70	79.61	8/76	1/83	8/91	8/104	6/109
	New Mexico	36.36	60.71	55.56	70.45	50.00	67/76	45/83	55/91	35/104	78/109
	Utah	71.43	76.32	72.50	76.92	74.19	28/76	16/83	26/91	14/104	20/109
	Washington*	38.89	36.36	36.67	38.89	60.00	65/76	78/83	82/91	93/104	56/109
	Wyoming*	61.11	61.54	38.89	62.50	65.38	43/76	42/83	81/91	51/104	43/109
Australia	New South Wales	60.00	61.54	61.70	60.47	68.63	47/76	41/83	40/91	56/104	31/109
	Northern Territory	84.21	75.00	67.24	72.22	79.73	5/76	19/83	33/91	26/104	5/109
	Queensland	80.95	79.69	83.70	83.33	76.85	11/76	12/83	3/91	4/104	14/109
	South Australia	81.82	66.00	78.57	77.03	76.04	9/76	29/83	12/91	13/104	16/109
	Tasmania*	77.27	44.44	52.38	52.78	66.67	17/76	71/83	63/91	75/104	35/109
	Victoria	61.90	50.00	43.75	57.41	50.00	40/76	66/83	77/91	68/104	78/109
	Western Australia	91.43	88.00	83.59	86.00	84.56	2/76	2/83	4/91	1/104	1/109
Oceania	Indonesia*	90.00	68.75	84.78	63.64	81.67	3/76	25/83	1/91	48/104	3/109
	New Zealand	59.09	53.85	57.89	44.12	58.00	49/76	58/83	51/91	86/104	62/109
	Papua New Guinea	65.00	70.00	75.00	73.81	77.27	38/76	23/83	20/91	23/104	12/109
Africa	Botswana*	50.00	56.25	50.00	68.18	55.00	59/76	53/83	64/91	38/104	69/109
	Burkina Faso	65.00	**	45.83	65.38	71.88	37/76	**	71/91	42/104	23/109
	Democratic Republic of Congo (DRC)*	40.00	68.75	79.17	80.95	70.45	63/76	24/83	11/91	7/104	26/109
	Guinea (Conakry)*	100.00	**	**	**	40.00	1/76	**	**	**	101/109
	Mali*	35.71	63.64	73.33	71.88	64.29	70/76	38/83	24/91	29/104	45/109

Table 3 continued

		Score					Rank				
		2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
	Namibia*	38.89	40.63	53.70	58.33	62.50	64/76	75/83	60/91	62/104	50/109
	South Africa	68.18	65.79	75.00	57.69	62.12	34/76	30/83	21/91	66/104	51/109
	Tanzania*	35.71	53.85	47.92	56.67	54.35	68/76	59/83	68/91	71/104	71/109
	Zambia*	37.50	62.50	63.33	72.22	54.00	66/76	39/83	39/91	27/104	73/109
	Zimbabwe*	57.14	62.50	70.83	57.69	52.63	53/76	40/83	29/91	67/104	77/109
Argentina	Catamarca	61.11	61.11	42.86	44.44	40.91	44/76	43/83	78/91	85/104	98/109
	Chubut	34.62	66.67	33.33	31.25	46.15	71/76	26/83	85/91	97/104	90/109
	Jujuy	47.06	50.00	61.11	16.67	54.17	60/76	62/83	42/91	103/104	72/109
	La Rioja	29.17	50.00	41.67	31.25	33.33	73/76	63/83	80/91	98/104	106/109
	Mendoza	50.00	50.00	20.00	36.36	40.48	58/76	64/83	89/91	95/104	100/109
	Neuquen*	50.00	30.00	50.00	10.00	58.33	57/76	82/83	66/91	104/104	60/109
	Rio Negro*	27.78	**	**	**	42.90	74/76	**	**	**	95/109
	Salta	60.00	45.00	56.25	60.00	52.94	46/76	70/83	54/91	59/104	76/109
	San Juan	73.53	50.00	60.71	57.14	55.88	24/76	65/83	43/91	69/104	68/109
	Santa Cruz	58.33	60.71	60.71	50.00	43.75	51/76	46/83	44/91	78/104	93/109
Latin America and the Caribbean Basin	Bolivia	79.17	50.00	29.17	53.13	50.00	14/76	60/83	87/91	73/104	78/109
	Brazil	59.09	54.76	54.76	60.87	64.71	48/76	56/83	59/91	54/104	44/109
	Chile	71.62	82.43	82.14	63.64	77.36	27/76	9/83	7/91	49/104	11/109
	Colombia	57.50	65.00	63.64	68.75	68.75	52/76	34/83	38/91	36/104	29/109
	Dominican Republic*	21.43	33.33	44.44	30.00	44.44	76/76	80/83	74/91	100/104	92/109
	Ecuador	61.54	65.22	58.70	61.11	46.67	41/76	33/83	47/91	53/104	89/109
	Guatemala*	25.00	38.89	25.00	50.00	38.89	75/76	77/83	88/91	79/104	103/109
	Guyana*	68.75	66.67	42.86	66.67	45.00	32/76	27/83	79/91	40/104	91/109
	Mexico	67.24	75.64	61.63	65.12	67.46	35/76	17/83	41/91	43/104	34/109
	Nicaragua*	41.67	25.00	35.00	45.83	61.54	62/76	83/83	84/91	84/104	53/109
	Peru	80.56	82.81	77.78	76.09	70.90	12/76	8/83	14/91	17/104	25/109
	Suriname*	70.00	65.00	57.14	**	**	31/76	36/83	53/91	**	**
	Venezuela	63.64	46.15	60.71	46.43	53.13	39/76	68/83	45/91	83/104	75/109
Europe	Bulgaria*	70.00	**	**	39.29	50.00	30/76	**	**	92/104	78/109
	Finland	86.67	65.63	82.50	77.50	76.79	4/76	31/83	6/91	12/104	15/109
	France*	68.75	**	**	40.00	42.31	33/76	**	**	91/104	97/109
	Greenland*	65.00	56.25	69.57	64.29	66.67	36/76	54/83	30/91	46/104	35/109
	Ireland, Republic of	75.00	65.00	74.00	71.88	75.00	23/76	35/83	23/91	30/104	17/109
	Norway*	61.11	45.83	53.57	58.33	58.33	42/76	69/83	61/91	64/104	60/109
	Portugal*	80.00	42.86	55.00	57.89	64.29	13/76	72/83	58/91	65/104	45/109
	Sweden	76.92	65.63	67.39	75.00	66.67	20/76	32/83	32/91	21/104	35/109
	Turkey*	83.33	54.55	52.50	64.71	59.09	6/76	57/83	62/91	44/104	58/109

Notes:

* Between 5 and 9 responses on one or more questions

** Not Available

Global Survey Rankings

The top

The top jurisdiction in the world for investment based on the Investment Attractiveness Index is Western Australia, which moved up from 2nd place in 2018 (see table 1). Finland moved into 2nd place after ranking 17th in the previous year. Nevada dropped two spots from 1st in 2018 to 3rd in 2019. Alaska's rank improved from 5th last year to 4th this year, and Portugal had a significant increase in the ranking moving up from 46th in 2018 to 5th in 2019. Rounding out the top 10 are South Australia, the Republic of Ireland, Idaho, Arizona, and Sweden. Six jurisdictions—Finland, Portugal, South Australia, Ireland, Idaho, and Sweden—were outside of the top 10 in the previous year displacing Saskatchewan, Quebec, Chile, Utah, Yukon, and Northwest Territories.

Finland had the highest PPI score of 100 this year, displacing Saskatchewan as the most attractive jurisdiction in terms of policy. The Republic of Ireland, which ranked 4th last year, climbed two spots and now ranks 2nd. Nevada ranks 3rd, moving down one spot after ranking 2nd in the previous year. Along with Finland, the Republic of Ireland, and Nevada the top 10 ranked jurisdictions based on PPI scores are Utah, Western Australia, Alberta, Idaho, Newfoundland & Labrador, Saskatchewan, and Arizona.

All were in the top 10 last year except for Alberta, Idaho, Newfoundland & Labrador, and Arizona. Alberta improved its position in the rankings from 14th in 2018 to 6th in 2019, Idaho improved from 13th in 2018 to 7th in 2019, Newfoundland & Labrador jumped from 18th in 2018 to 8th in 2019, and Arizona moved up nine spots from 19th in 2018 to 10th in 2019. Displaced from the top 10 this year were Sweden, New Brunswick, and Quebec.

Finland, the Republic of Ireland, Nevada, and Saskatchewan have ranked consistently in the top 10 over the last seven 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, Tanzania ranks as the least attractive jurisdiction in the world for investment. This year, Tanzania replaced Venezuela as the least attractive jurisdiction in the world. Also in the bottom 10 (beginning with the worst) are Argentina: Chubut, Argentina: La Rioja, Guatemala, Dominican Republic, Zambia, Venezuela, the Democratic Republic of Congo (DRC), Mali, and Nicaragua.

The 10 least attractive jurisdictions for investment based on the PPI rankings are (starting with the worst) Venezuela, Zimbabwe, Tanzania, Argentina: Chubut, Argentina: Mendoza, Bolivia, the Democratic Republic of Congo (DRC), Zambia, Guinea (Conakry), and Argentina: La Rioja. Venezuela, Democratic Republic of Congo (DRC), Chubut, La Rioja, and Zimbabwe were all in the bottom 10 jurisdictions last year. Displaced from the bottom 10 in 2019 were Guatemala and Argentina: Neuquen.

Global Results

Canada

Canada's median PPI score decreased by 7 points this year and three Canadian jurisdictions—Alberta (6th), Newfoundland and Labrador (8th) and Saskatchewan (9th)—are ranked in the PPI top 10 this year. When considering how Canadian jurisdictions rank on the Investment Attractiveness Index, Canada is the third most attractive region in the world for investment after Europe and Australia. This year, no Canadian jurisdictions ranked in the top 10 in terms of investment attractiveness, compared to four in the previous year's report.

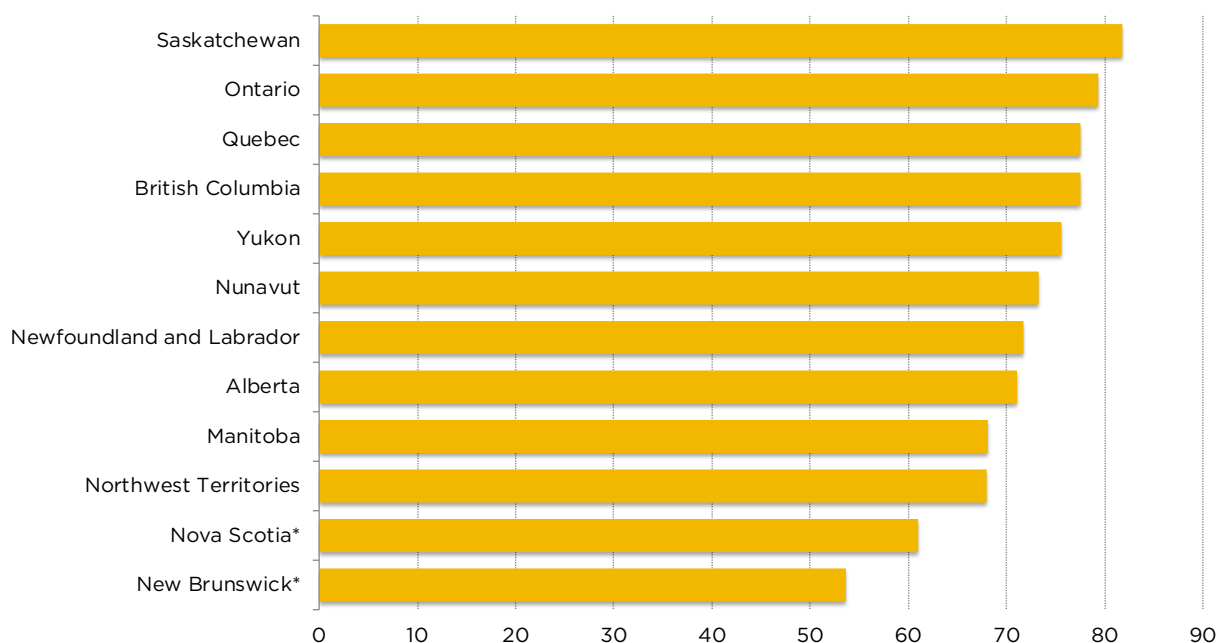
Focusing on policy alone (and not overall investment attractiveness), British Columbia's PPI score declined by 4 points this year. However, British Columbia's relative rank improved this year, coming in at an overall ranking of 36th (out of 76) after ranking 44th (out of 83) last year.⁴ This year respondents expressed increased concern over the availability of labour/skills (+7 points)⁵, and decreased concern over labour regulations and employment agreements (-12 points).

In particular, the two other policy areas that continue to significantly hamper British Columbia's mining competitiveness are uncertainty concerning disputed land claims and environmental regulations. The sum of negative responses citing these two areas as deterrents to investment was 78 percent and 74 percent, respectively. In addition, 67 percent of respondents for British Columbia were deterred by uncertainty concerning protected areas. Investor concerns related to disputed land claims and protected areas likely reflect the ongoing tensions in the province over land title issues.⁶

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 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 2018 to 2019 (i.e., the change in percentage points).

⁶ 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 are available at www.fraserinstitute.org.

Figure 6: Investment Attractiveness Index—Canada

* Between 5 and 9 responses

Even though Alberta's PPI score decreased by 2 points this year, its rank improved from 14th in 2018 to 6th in 2019 making it the highest performing Canadian jurisdiction in terms of policy factors. This year, respondents for Alberta expressed decreased concern over uncertainty concerning environmental regulations (-20 points), uncertainty concerning protected areas (-15 points), and uncertainty regarding the administration, interpretation, or enforcement of existing regulations (-13 points).

Saskatchewan saw an almost 10-point decrease in its PPI score this year, making this jurisdiction drop from the top spot in 2018 to the 9th position in this year's ranking. Respondents expressed increased concerns over the taxation regime (+27 points), regulatory duplication and inconsistencies (+15 points) and trade barriers (+13 points).

Manitoba's PPI score decreased by over 21 points this year, and its rank dropped from 33rd in 2018 to 53rd in 2019, making it the lowest ranked Canadian jurisdiction when considering policy factors alone. Manitoba's rank also remains far behind where it was in 2016 when the province ranked 6th (of 104). The decline reflects lower scores on the PPI as a greater percentage of respondents indicated that the following policy factors in Manitoba were "detering investment": uncertainty concerning protected areas (+36 points), socio-economic agreements and community development conditions (+32 points), infrastructure (+29 points), and regulatory duplication (+26 points).

Ontario's PPI score declined by 2 points this year, while its rank improved from 30th in 2018 to 24th in 2019. This year, respondents expressed decreased concern over uncertainty concerning environmental regulations (-15 points), uncertainty over disputed land claims (-12 points), and uncertainty regarding the administration, interpretation, or enforcement of existing regulations (-8 points). In addition, miners expressed increased concern over trade barriers (+9 points) and infrastructure (+4 points).

Quebec's PPI score decreased by nearly 12 points this year, dropping from the 10th spot (of 83) in 2018 to 21st (of 76) in 2019. This year, miners expressed increased concern over environmental regulations (+18 points), the administration and enforcement of existing regulations (+15 points), and socioeconomic agreements and community development conditions (+15 points).

Newfoundland & Labrador saw its PPI score decrease by 2 points this year, but its rank improved from 18th (of 83) in 2018 to 8th (of 76) in 2019. This year, miners expressed decreased concern over uncertainty regarding the administration, interpretation, or enforcement of existing regulations (-28 points), labour regulations and employment agreements (-18 points), and uncertainty concerning environmental regulations (-11 points). Respondents expressed increased concern over socioeconomic agreements and community development conditions (+25 points) and taxation (+24 points).

New Brunswick and Nova Scotia both saw their PPI score decrease by 9 points respectively. Respondents for New Brunswick expressed increased concern over trade barriers (+25 points), the legal system (+23 points) and uncertainty concerning protected areas (+17 points). This year, investors expressed increase concern over uncertainty concerning protected areas (+17 points), taxation (+12 points), and infrastructure (+12 points) for Nova Scotia.

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

Failure to coordinate provincial and federal permitting processes deters investment.

—An exploration company, Company president

Drilling permits in BC take too long and are a great deterrent for investors.

—Other, Company president

The unpredictability of the Trans Mountain project has made BC a feared investment jurisdiction for investors.

—An exploration company, Company president

Administrative inefficiencies add unnecessary delays to the permitting processes.

—An exploration company, Company president

Manitoba

Indigenous consultation requirements are unclear, which is a deterrent for investors.

—An exploration company, Company president

The process for obtaining drilling permits is far too lengthy.

— A producer company with more than US\$50M, Company manager

Newfoundland & Labrador

High royalty tax on prospectors in Newfoundland deters investment.

— An exploration company, Company consultant

Excellent adherence to permit approval schedule.

— A consulting company, Company president

Nunavut

Failure to coordinate decisions and outcomes by regulators hampers the permitting process.

— An exploration company, Company president

Ontario

While provincial and federal governments remain supportive of the mining industry in theory, regulatory complexity remains a burden and a barrier for investors.

— A producer company with more than US\$50M, Senior Analyst

There is uncertainty with regards to timelines on exploration permits.

—An exploration company, Company president

Quebec

The uranium moratorium continues to drive investment away from the mining industry.

—An exploration company, Company president

Saskatchewan

Recent production tax changes have created uncertainty for investors. Additional consultation was needed.

— A producer company with more than US\$50M, Senior Management

The province has a clear and predictable process for permitting.

—A consulting company, Company president

Yukon

Regulatory duplication and inconsistencies in the Yukon is a major concern for investors.

—An exploration company, Company president

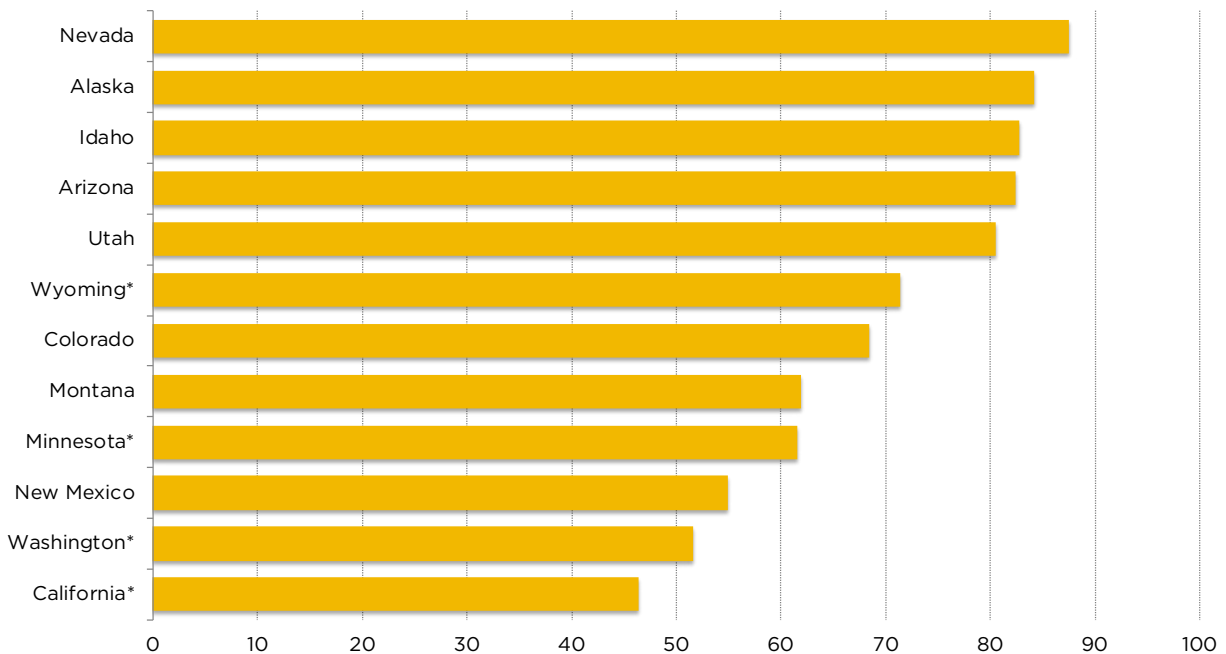
The United States

The United States' median investment attractiveness score decreased this year by 4 points. Based on policy factors and mineral potential, the most attractive state to pursue exploration investment is Nevada, which this year ranked as the 3rd most attractive jurisdiction in the world.

Based on the region's median investment attractiveness score, the United States is the fourth most attractive region in the world for investment, behind Europe, Australia, and Canada. The median PPI score for the United States also decreased in 2019, but the United States continues to be the top ranked jurisdiction based on policy alone. The state with the most attractive policy environment alone is Nevada, which ranked 3rd in the world. This year, four US jurisdictions—Nevada (3rd), Utah (4th), Idaho (7th), and Arizona (10th)—ranked in the global top 10.

With the exception of Alaska, all US states saw declines in their PPI scores this year. Alaska's score was similar to last year, and its rank improved from 26th (of 83) in 2018 to 17th (of 76) in 2019. Respondents expressed decreased concern over uncertainty concerning environmental regulations (-15 points), uncertainty regarding the administration, interpretation, or enforcement of existing regulations (-15 points), and uncertainty concerning protected areas (-14 points).

Arizona saw a slight decrease in its PPI score this year, but its ranking increased from 19th (of 83) last year to 10th (of 76) this year. Miners expressed decreased concern over uncertainty concerning protected areas (-25 points), uncertainty regarding the administration, interpretation, or enforcement of existing regulations (-22 points), and the taxation regime (-10 points).

Figure 7: Investment Attractiveness Index—United States

* Between 5 and 9 responses

California continues to be the least attractive jurisdiction in the US based on policy, decreasing its position in the rankings from 49th (of 83) in 2018 to 52nd (of 76) in 2019. This year, 100 percent of respondents for California expressed concerns over uncertainty concerning environmental regulations. Additionally, miners expressed increased concern over the state's geological database (+40 points), its socioeconomic agreements and community development conditions (+21 points), and its legal system (+17 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

Companies are losing access to mineral resources due to excessive regulations and limited road access.

—A producer company with less than US\$50M, Company president

Arizona

Excessive delays and litigation related to the Rosemont Copper Project is deterring investors.

—An exploration company, Company president

Minnesota

Land issues with regards to the renewal of lease agreements are deterring investors.

—An exploration company, Company president

Montana

Montana's cyanide ban is a deterrent for investors.

—An exploration company, Company president

Wyoming

Trade issues in the United States create uncertainty for investors.

— A producer company with more than US\$50M, Company vice-president

Australia and Oceania

In considering of both policy and mineral potential, Australia retained its position as the second most attractive region in the world for investment. This year, Western Australia was rated to be the most attractive jurisdiction in the region and in the world based on its Investment Attractiveness score. Western Australia (1st) and South Australia (6th) appeared in the global top 10 on the Investment Attractiveness Index in this year's survey.

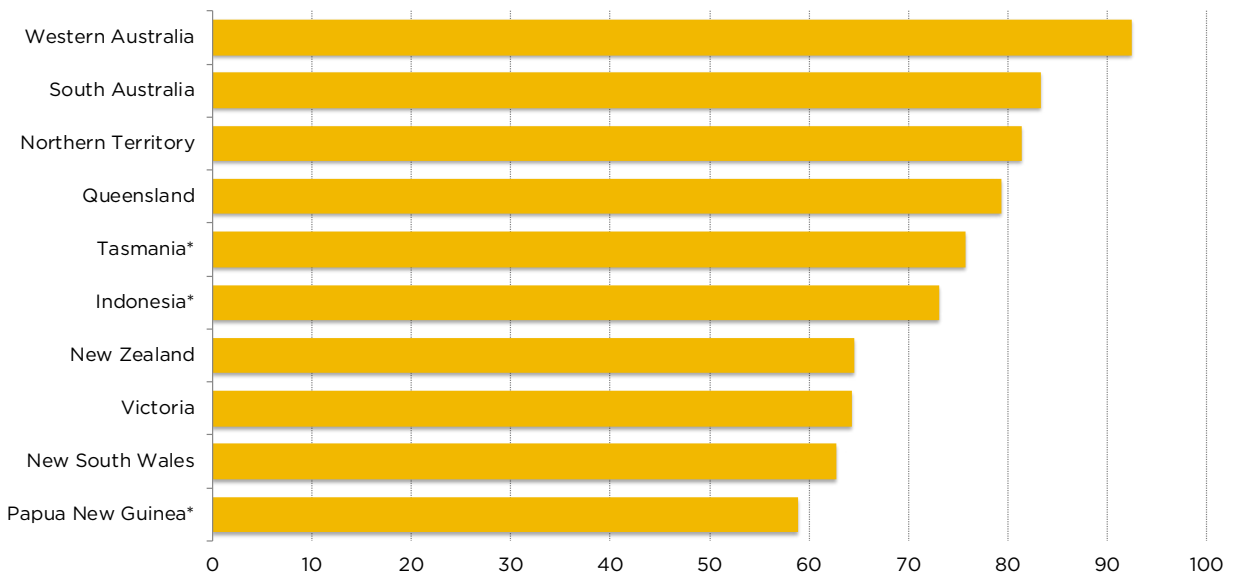
However, all of the Australian jurisdictions saw declines in their PPI scores this year in comparison with 2018 results. Tasmania was the Australian jurisdiction with the highest decrease in its PPI score (-10.8 points) since last year. When evaluating Tasmania, miners expressed increased concern about the uncertainty regarding the administration, interpretation, or enforcement of existing regulations (+34 points), regulatory duplication and inconsistencies (+25 points), and the availability of labour/skills (+20 points). Queensland saw its PPI score decline by almost 8 points this year, and its rank of 31st (of 76) was similar to last year. Respondents cited increased concerns about uncertainty concerning disputed land claims (+10 points), socioeconomic agreements and community development conditions (+6 points), and security (+5 points).

New South Wales continues to be Australia's lowest ranked jurisdiction when considering policy factors alone. New South Wales saw its PPI score decrease by almost 5 points this year, and it ranked 46th (of 76) this year compared to 47th (of 83) last year. This year, miners expressed increased concern over trade barriers (+11 points), and decreased concern over political stability (-19 points). In addition, 81 percent of respondents for New South Wales cited uncertainty regarding the administration and enforcement of existing regulations and uncertainty concerning environmental regulations as deterrents to investment.

This year, only three jurisdictions in Oceania received sufficient responses to be included in this year's survey: Indonesia, New Zealand, and Papua New Guinea. While some jurisdictions in this region struggle when only policy is considered, many perform much better when mineral potential is included, indicating that there is considerable room for improvement on the policy front. For example, this year Indonesia ranked 64th in the PPI with a score of 47.74. However, when considering policy factors and mineral potential, Indonesia ranks 27th in the Investment Attractiveness Index with a score of 73.09. This year, miners expressed increased concern over the quality of Indonesia's geological database (+23 points) but decreased concern over security country (-11 points).

Within Oceania, all three ranked jurisdictions saw declines in their PPI scores this year. In terms of policy, New Zealand, despite seeing its PPI score drop by almost 13 points, is still the best performing jurisdiction in the region ranking 35th (of 76) with a score of 72.8 points. This year, miners expressed

Figure 8: Investment Attractiveness Index—Australia and Oceania



* Between 5 and 9 responses

increase concern over regulatory duplication and inconsistencies (+34 points) and decreased concern over trade barriers (-15 points).

Papua New Guinea's PPI score declined by over 11 points this year, and its rank dropped from 61st (of 83) in 2018 to 63rd in 2019. This year, respondents expressed increased concern over the availability of labor/skills (+30 points), uncertainty concerning protected areas (+30 points), and socioeconomic agreements and community development conditions (+29 points).

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.

New South Wales

Permitting process is onerous and unpredictable, which deters investors.

—An exploration company, Company President

Victoria

The Victorian government introduced a 2.75% royalty tax on gold production without adequate consultation with industry.

— A producer company with more than US\$50M, Senior Management

Western Australia

Western Australia's uncertainty with regards to uranium policies and regulations is a deterrent for investors.

—An exploration company, Company president

The mining department is very forthcoming with information which is encouraging for investors.

—An exploration company, Company President

Indonesia

There is a lack of transparency in the mining department which is a deterrent for investors.

—A producer company with less than US\$50M, Company president

Africa

The median score for Africa on the investment attractiveness index showed a decrease of 5 points this year. In addition, Africa's median PPI score decreased by almost 18 points making it the worst performing region in terms of policy environment for mining activities. In terms of overall investment attractiveness, as a region, Africa ranks as the least attractive jurisdiction for investment with a median score of 51.52.

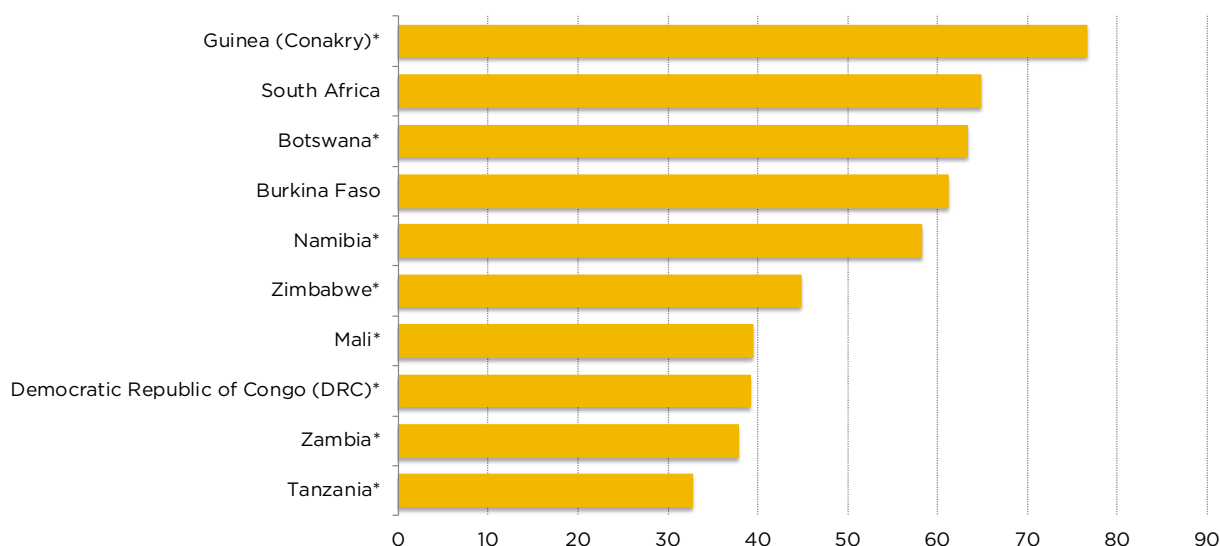
Five African countries—Zimbabwe (75th), Tanzania (74th), the Democratic Republic of Congo (70th), Zambia (69th), and Guinea (68th)—ranked in the bottom 10 of the survey rankings this year based on policy. Zimbabwe was also amongst the bottom 10 in the previous seven years. Three African jurisdictions jurisdiction were ranked in the global bottom 10 based on their overall investment attractiveness: Tanzania, Zambia, and Mali.

Namibia is the highest ranked jurisdiction in Africa on policy, ranking 14th (of 76) in 2019, after ranking 36th (of 83) in 2018. Namibia's increase in its PPI score this year reflects decreased concern over the availability of labor/skills (-53 points), socioeconomic agreements and community development conditions (-49 points), regulatory duplication and inconsistencies (-33 points), and the legal system (-33 points). Botswana is the second most attractive jurisdiction when only policies are considered, ranking 22nd (of 76) this year after ranking 12th (of 83) in 2018. This year, respondents for Botswana expressed increased concern over labor regulations and employment agreements (+43 points), political stability (+29 points), and the availability of labor/skills (+23 points).

Three African countries—Tanzania, Zambia and Zimbabwe—experienced large declines in their PPI scores this year. Tanzania's decrease of almost 30 points resulted in a decline in the rankings from 66th (of 83) last year to 74th (of 76) this year. This year respondents for Tanzania expressed increased concern over the availability of labor/skills (+54 points), uncertainty concerning disputed land claims (+50 points), taxation regime (+31 points), and uncertainty with regards to the administration and enforcement of existing regulations (+31 points).

Zambia PPI score declined by nearly 27 points this year, and its rank dropped from 53rd (of 83) in 2018 to 69th (of 76) in 2019, Zambia's decrease in its PPI score this year reflects increased concern over regulatory duplication and inconsistencies (+33 points), the geological database (+25 points), and security (+25 points). Zimbabwe, the least attractive jurisdiction in Africa and the second to last least attractive jurisdiction in the world in terms of policy, saw its PPI score decline by over 21 points. All respondents in Zimbabwe cited legal system, infrastructure, trade barriers, political stability, labor regulations and employment agreements, the quality of the geological database, and the availability of labor/skills as significant deterrents to investment in this jurisdiction.

Guinea was included in this year's survey for the first time since 2015. When considering only mineral potential practices, Guinea ranks as the most attractive jurisdiction in the world. However,

Figure 9: Investment Attractiveness Index—Africa

* Between 5 and 9 responses

if we consider policy alone, Guinea ranks 68th (of 76) with a PPI score of 41.60. This gap between its mineral potential and its policy environment means that it has room for policy reform.

Comments: Africa

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

Botswana

The government is very approachable and keen to help at all levels with transparency which is encouraging for investors.

—An exploration company, Chairman

Burkina Faso

Concerns over security and the legal system has made companies more wary of exploration activities.

—A producer company with more than US\$50M, Senior Analyst

Democratic Republic of Congo

The DRC's lack of transparency is a serious deterrent for investors.
—A consulting company, Consultant

Zambia

Corruption and excessive delays are having a negative effective on the industry and on the country's competitiveness as a whole.
— A consulting company, Consultant

Zimbabwe

Corruption at all levels is hampering the country's mining industry.
—An exploration company, Chairman

Argentina, Latin America, and the Caribbean Basin

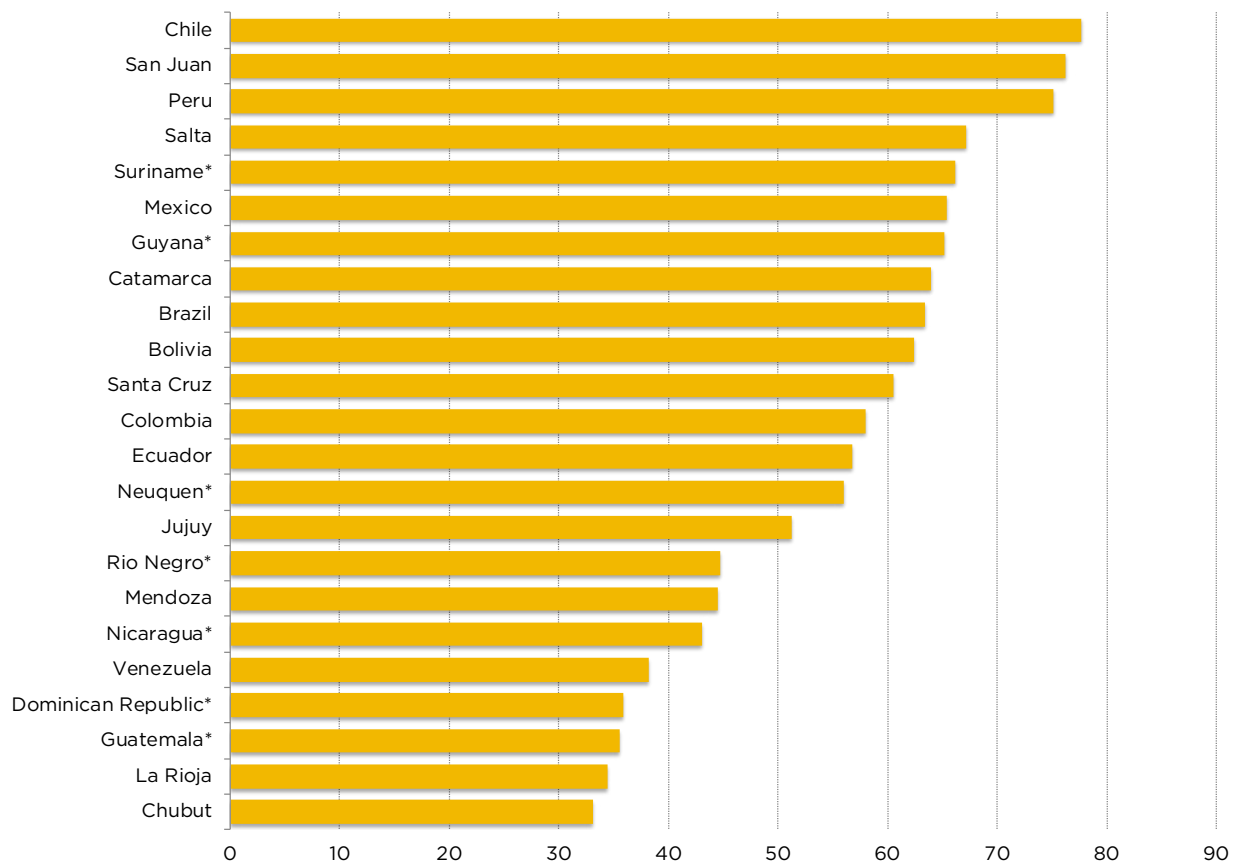
This year, Argentina ranked as the second least attractive region in the world for investment with a median investment attractiveness score of 53.6. However, it was the only regional jurisdiction that improved its PPI score from 56.53 in 2018 to 64.36 in 2019, an increase of nearly 8 points.

This year there was significant variation across provinces when comparing PPI scores to last year. Five jurisdictions saw decreases in their PPI scores since 2018, while four experienced increases. Mendoza had the largest PPI score decrease within Argentina, and the province is now ranked in the bottom 10 least attractive jurisdiction for investment in the world based on perceptions of its policy environment.

Neuquen's 30-point PPI score increase resulted in the province climbing in the rankings from 81st (of 83) in 2018 to 47th (of 76) in 2019, as respondents showed decreased concern over regulatory duplication and inconsistencies (-67 points), taxation regime (-67 points), and political stability (-50 points). San Juan also saw its score and rank improve this year, increasing from 55th (of 83) in 2018 to 27th (of 76) in 2019 based on its policy environment. Investors expressed decreased concern over socioeconomic agreements and community development conditions (-58 points), uncertainty concerning environmental regulations (-53 points), and taxation (-50 points).

Despite improvements in four jurisdictions, some of Argentina's provinces are also among the least attractive jurisdictions in the world based on policy, demonstrating that there is considerable room for improvement in this region. Indeed, Chubut (73rd), Mendoza (72nd), and La Rioja (67th) are the fourth, fifth, and tenth least attractive jurisdictions for investment globally based on their PPI scores.

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



* Between 5 and 9 responses

When considering mineral potential and policy factors, two Argentinian provinces—Chubut (75th) and La Rioja (74th) – are in the bottom 10 jurisdictions globally.

In Latin America and the Caribbean Basin, the median investment attractiveness score increased this year, holding its position as the third least attractive for investment globally. Based on their investment attractiveness scores, four jurisdictions in this region—Dominican Republic, Guatemala, Nicaragua, and Venezuela—ranked in the global bottom 10.

Two Latin American countries—Venezuela and Bolivia—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 dropped by almost 6 points from 2018. Overall, Chile (15th), Brazil (39th), Peru (45th), and Mexico (51st) 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 15th (of 76) this year, after ranking 23rd (of 83) in 2018. Respondents indicated decreased concern over political stability (-12 points), taxation (-7 points), and uncertainty regarding the administration and enforcement of existing regulations (-6 points).

Peru saw a decrease in its PPI score of almost 13 points compared to its 2018 results. Peru's score and rank decreased from 37th (of 83) in 2018 to 45th (of 76) in 2019. This year, respondents expressed increased concern over uncertainty regarding the administration and enforcement of existing regulations (+29 points), uncertainty concerning environmental regulations (+26 points), and its availability of labor/skills (+19 points).

Suriname was the Latin American and Caribbean jurisdiction with the greatest reduction in its PPI score, a decline of 14 points since 2018. Miners expressed increased concerns over regulatory duplication and inconsistencies (+53 points), security (+50 points), and uncertainty regarding the administration and enforcement of existing regulations (+44 points).

Brazil was the Latin American and Caribbean jurisdiction with the highest increase in its PPI score since last year. This year, miners expressed decreased concern over uncertainty concerning disputed land claims (-29 points), uncertainty concerning environmental regulations (-28 points), and socioeconomic agreements and community development conditions (-19 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.

Chubut

Chubut's ban on open pit mining is a deterrent for investors.

—A producer company with more than US\$50M, Company vice-president

Chile

Drilling permits are issued in a timely manner, which is encouraging for investors.

— A producer company with more than US\$50M, Company CEO

Colombia

A new regional policy in Antioquia banned mining from 85% of its territory, which is a deterrent for investors.

—An exploration company, Company president

Ecuador

Constant rewriting of mining regulations creates uncertainty for investors.
— Other, Senior Management

Mexico

Licensing processes in Mexico are subjective and uncertain, which is a deterrent for investors.
— A producer company with more than US\$50M, Company vice-president

Peru

Exploration permit regulations are excessive and unpredictable. They causing significant project delays and cancellations.
—An exploration company, Company president

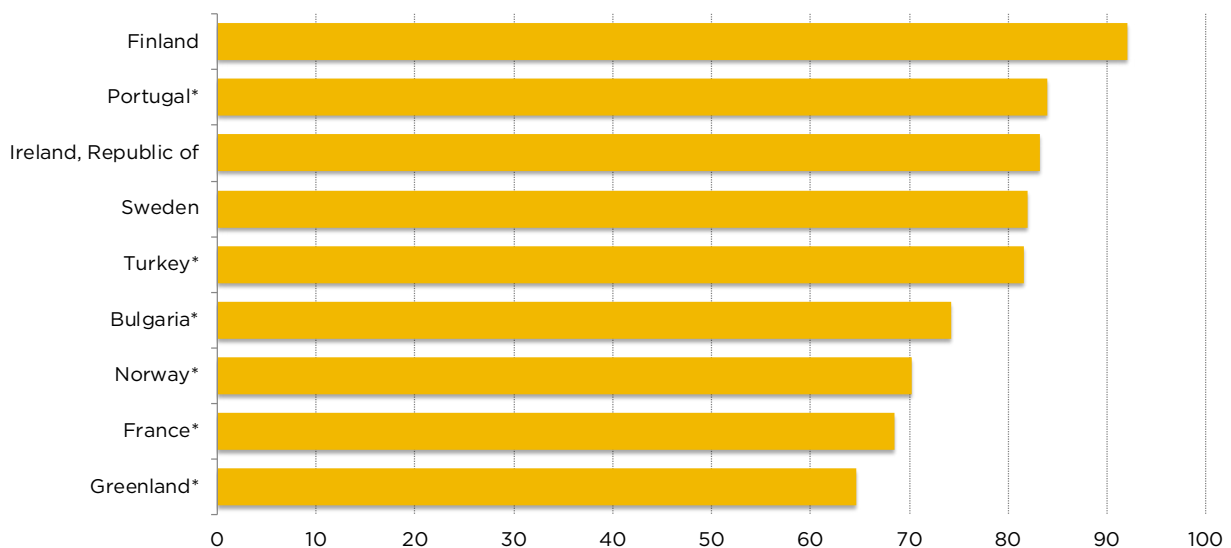
Asia

Asia was not included in the regional analysis this year due to insufficient responses. No jurisdiction from the region received sufficient responses to be included in this year's survey.

Europe

Europe's median investment attractiveness score increased by almost 20 points this year compared to its 2018 results. This year, four jurisdictions—Finland (2nd), Portugal (5th), the Republic of Ireland (7th), and Sweden (10th)—ranked in the global top 10 based on investment attractiveness. All European jurisdictions increased their investment attractiveness score in 2019, Turkey (+25 points), Portugal (+20 points), and Finland (+13 points) saw the most substantial increases. The lowest ranked European jurisdiction in terms of investment attractiveness is Greenland at 41st (of 76).

This year, Finland (1st) and Republic of Ireland (2nd) led the global top 10 on policy, with the highest scores of 100 and 95.54 points, respectively. These two countries have ranked in the PPI top 10 every year over the last eight years. The Republic of Ireland saw its score decrease by 2 points but the country improved in the rankings from 4th (of 83) to 2nd (of 76). Miners expressed decreased concerns over the administration and enforcing of existing regulations (-29 points), the legal system (-20 points), and labor regulations and employment agreements (-15 points).

Figure 11: Investment Attractiveness Index—Europe

* Between 5 and 9 responses

Turkey saw a substantial increase in its PPI score and rank in 2019. This year, the country increased its PPI score by over 19 points and increased its position in the rankings from 64th (of 83) in 2018 to 28th (of 76) in 2019. Miners expressed decreased concern over security (-58 points), political stability (-58 points), and uncertainty concerning disputed land claims (-56 points).

Greenland, despite being the lowest ranked European jurisdiction, increased its PPI score by almost 9 points and improved in the rankings from 69th (of 83) in 2018 to 48th (of 76) in 2019. Miners expressed decreased concern over the availability of labor/skills (-40 points), protected areas (-38 points), and regulatory duplication and inconsistencies (-31 points).

Sweden saw its PPI score decline by almost 7 points this year, and it dropped in the rankings from 7th (of 83) in 2018 to 12th (of 76) in 2019. Investors expressed increased concern over the legal system (+8 points), security (+8 points), and regulatory duplication and inconsistencies (+4 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.

Greenland

There is lack of transparency in the mining department, which creates uncertainty for investors.

—An exploration company, Company president

Republic of Ireland

The Republic of Ireland has made great efforts to coordinate between the different departments and ministries in order improve the permitting process, which is encouraging for investors.

—Other, Senior Management

The creation of Geoscience Ireland and iCRAG Research Centre are encouraging for investors.

—An exploration company, Senior Management

Sweden

Regulatory uncertainties and licensing issues are deterrents for investors.

—An exploration company, Company president

Overview

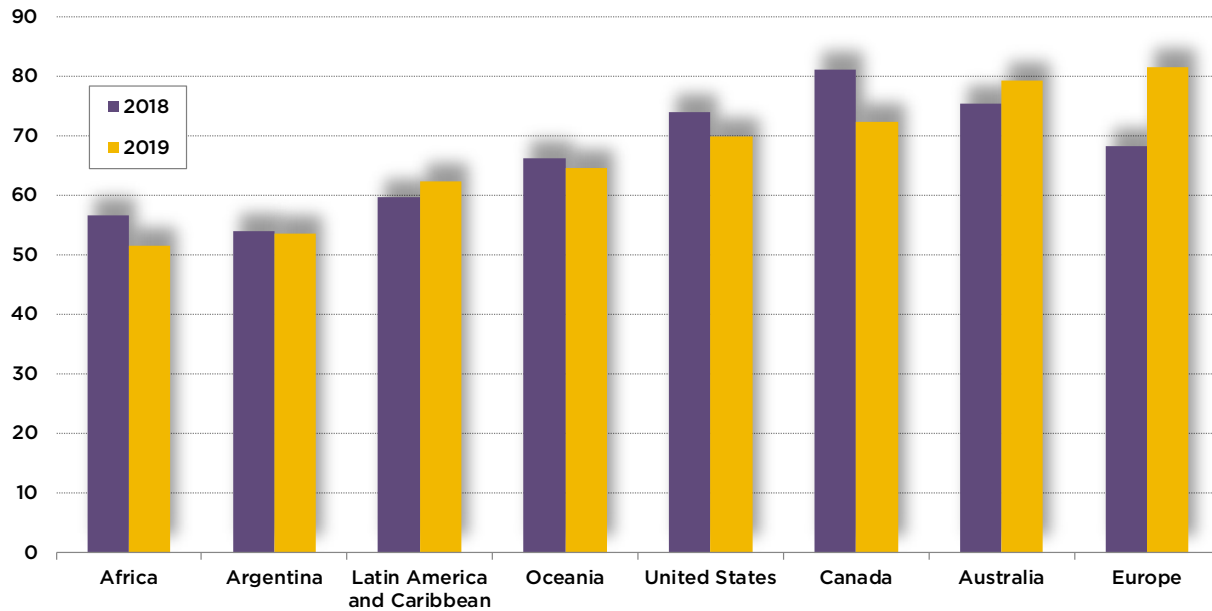
An analysis of the regional trends in the results of the Investment Attractiveness Index (based on both mineral potential and policy factors) from the 2019 mining survey indicates a stark difference between geographical regions. As indicated by Figure 12, Europe is the most attractive region in the world for investment this year, followed by Australia and then Canada. Canada was displaced from the top spot this year, a position it had held since 2017. Three regions—Europe, Australia, and Latin America and Caribbean—saw an increase in their relative investment attractiveness. Europe experienced an increase of almost 20 percent in its regional median score from 2018, while Australia experienced a 5 percent increase. The other six regions saw a decrease in their relative investment attractiveness. Canada saw a decrease of almost 11 percent in its regional median investment attractiveness score, while Africa experienced a decline of 9 percent. In general, investment attractiveness is declining in many of the world’s regions.⁷

The regional trend for policy measures (figure 13) is again dominated by certain regions (the United States, Europe, Canada, and Australia). When considering policy alone, the United States is the top performer for the second consecutive year. America’s position as the top performing region, when only policy is considered (not pure mineral potential), indicates that mineral potential is the factor holding the United States back from being in the same category as the two other most attractive regions in the world. Argentina’s median policy score increased by almost 8 percent this year, although, as a whole, it is still the fourth least attractive region in the survey. Of the regions included in the survey, Africa has the least attractive policy environment.

Also of interest is the difference in results between regional median investment attractiveness and PPI. For example, the United States performs less favorably in terms of its median investment attractiveness score, while performing better as a region on the PPI. This indicates that what are driving the region’s investment attractiveness rank are investors’ views of America’s pure mineral potential and not necessarily policy.

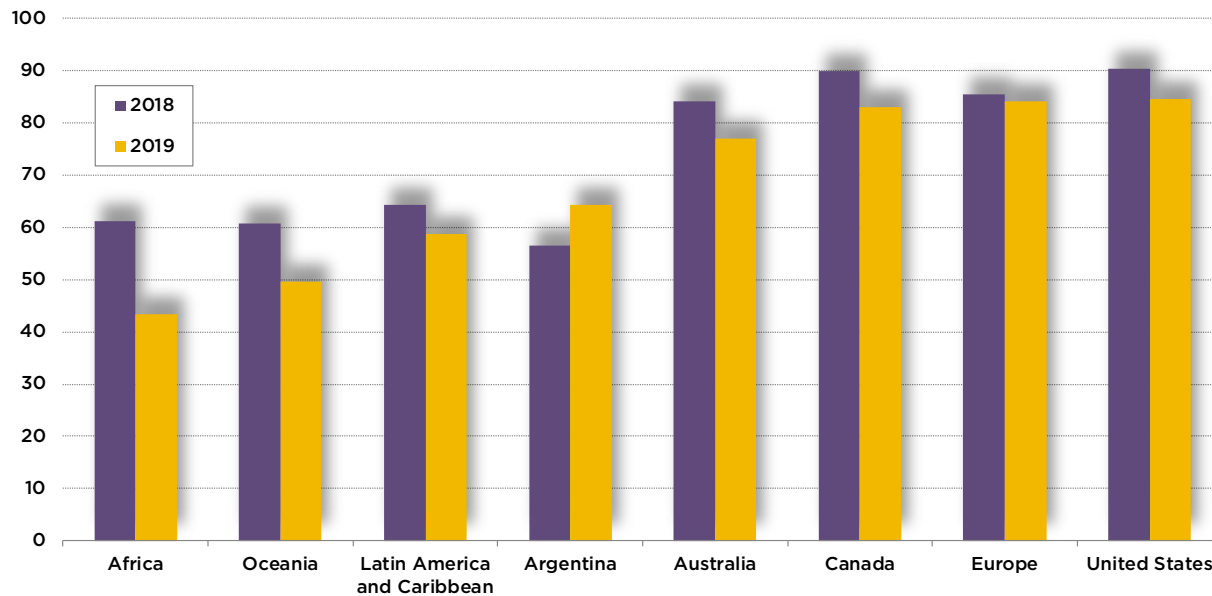
⁷ The regional median investment attractiveness scores are calculated based on the jurisdictions included in each year. As a result, the number of jurisdiction included in the regional score will vary year-over-year depending on the number of survey responses.

Figure 12: Regional Median Investment Attractiveness Scores 2018 and 2019



*Asia was not included this year, as no jurisdiction in this region received sufficient responses.

Figure 13: Regional Median Policy Perception Index Scores 2018 and 2019



*Asia was not included this year, as no jurisdiction in this region received sufficient responses.

Permit Times for Mining Exploration 2019

This year's survey includes and continues the work of the previous editions of the chapter entitled "Permit Times for Mining Exploration in 2018." It is again an early contribution to attempting to assess the exploration permitting process and its possible effects. As with the 2018⁸ chapter, a survey of mining executives who have recently applied for exploration permits in Canada's provinces and territories, as well as in a number of jurisdictions around the world, was undertaken to get a better understanding of how timelines for permit approval, transparency, and other issues in the permit approval process differ within Canada.

The results of this sub-survey will allow for a better understanding of how states, provinces, and territories perform in this area and will serve as a starting point for future research aimed at identifying best practices for exploration permitting. This year's survey adds further data for future research by including jurisdictions in Australia and the United States, all regions where mining, environmental, and other policies are broadly comparable to those in Canada. This will help gauge Canada's performance compared to a number of similar jurisdictions. Scandinavia was not included in this year's report of permit times due to insufficient responses.

To ensure that only individuals knowledgeable about mining exploration in the regions included in the exploration permit survey answered the permit-time component of the survey, only those individuals who provided responses for Canada, the United States, and Australia, in the broader survey were given access to the sub-survey on exploration permits. This screening resulted in approximately 164 eligible respondents. However, only respondents who had applied for an exploration permit, license, notice of work, or similar document within the last two years were asked to respond to the sub-survey to ensure that only those with the most recent and relevant experience were answering the questions; as a result, 116 executives and managers answered the permit-time component of the survey (figures 14 and 15). Only jurisdictions that had a minimum of five responses were included in the exploration permits study. Table 6 shows those jurisdictions that met this criterion. Jurisdictions with between 5 and 9 responses have been noted with an asterisk in subsequent tables to indicate

⁸ Ashley Stedman and Kenneth P. Green (2018). *Permit Times for Mining Exploration in 2018*. *Fraser Institute Annual Survey of Mining Companies 2018*. Fraser Institute.

Figure 14: The Position Permit Times Sub-Survey Respondents Hold in Their Company, 2019

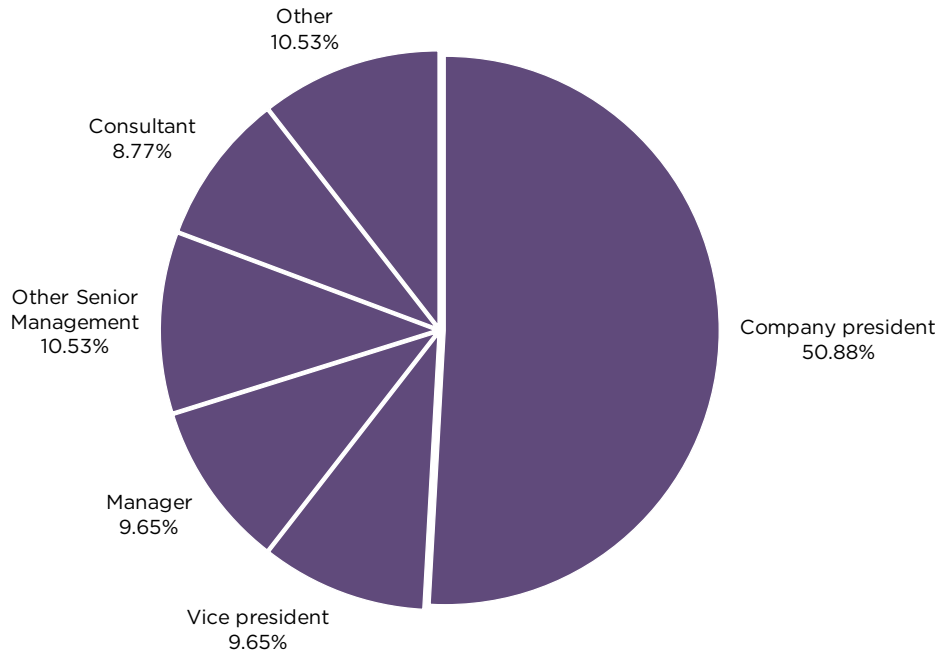


Figure 15: Company Focus as Indicated by Permit Times Sub-Survey Respondents, 2019

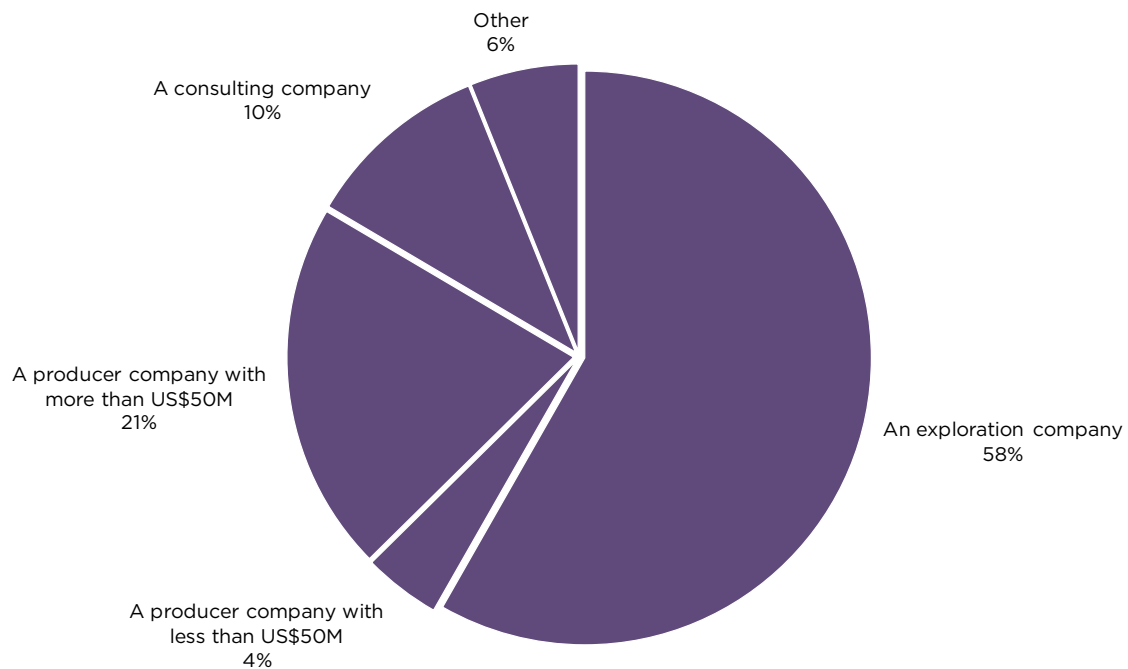


Table 6: Jurisdictions Discussed

Canada	United States	Australia
British Columbia	Alaska*	New South Wales
Manitoba	Arizona*	Northern Territory*
Newfoundland & Labrador*	Idaho*	Queensland*
Northwest Territories*	Nevada	South Australia*
Nunavut*		Victoria*
Ontario		Western Australia
Quebec		
Saskatchewan		
Yukon*		

*Between 5 and 9 responses

that results for these jurisdictions are likely not as robust as those for jurisdictions with 10 or more responses.

Just over half of respondents (51 percent) to the Canadian permit-time component of the *Annual Survey of Mining Companies* were company presidents.⁹ A further 19 percent of respondents were either company vice-presidents or managers. Over half of the respondents, 58 percent, were from exploration companies. An additional 25 percent of responses came from producer companies that are also involved in exploration activities.¹⁰

Results

The results of the survey have been broken into four areas: the length of time it takes to be approved for the necessary permits, changes over time, the transparency of the permitting process, and the certainty of the permitting process. Jurisdictions with less than five responses were dropped from the analysis and those with between five and nine responses have been noted with an asterisk in all the subsequent tables.

⁹ Another 10 percent of respondents came from other senior management roles, 9 percent were consultants, and 10 percent identified as other.

¹⁰ An additional 10 percent of respondents came from consulting companies and 6 percent of respondents identified as other.

Table 7: Amount of Time Respondents Expected to Spend Getting the Permits, Licences, or Notices of Work, etc. to Conduct Exploration Activities

	2 months or less	3 to 6 months	7 to 10 months	11 to 14 months	15 to 18 months	19 to 23 months	24 months or more
British Columbia	13.6%	40.9%	18.2%	13.6%	4.5%	9.1%	0.0%
Manitoba	12.5%	25.0%	6.3%	18.8%	12.5%	0.0%	25.0%
Newfoundland & Labrador*	66.7%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Northwest Territories*	0.0%	20.0%	60.0%	0.0%	0.0%	0.0%	20.0%
Nunavut*	0.0%	57.1%	28.6%	0.0%	0.0%	14.3%	0.0%
Ontario	18.8%	62.5%	0.0%	12.5%	0.0%	0.0%	6.3%
Quebec	28.6%	35.7%	7.1%	21.4%	7.1%	0.0%	0.0%
Saskatchewan	50.0%	30.0%	10.0%	10.0%	0.0%	0.0%	0.0%
Yukon*	0.0%	42.9%	42.9%	0.0%	0.0%	0.0%	14.3%
Alaska*	57.1%	42.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Arizona*	60.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Idaho*	0.0%	0.0%	33.3%	16.7%	16.7%	33.3%	0.0%
Nevada	37.5%	43.8%	0.0%	18.8%	0.0%	0.0%	0.0%
New South Wales	5.6%	61.1%	5.6%	5.6%	5.6%	0.0%	16.7%
Northern Territory*	14.3%	14.3%	28.6%	0.0%	0.0%	14.3%	28.6%
Queensland*	11.1%	22.2%	44.4%	0.0%	0.0%	11.1%	11.1%
South Australia*	16.7%	33.3%	16.7%	0.0%	0.0%	0.0%	33.3%
Victoria*	0.0%	28.6%	28.6%	14.3%	14.3%	0.0%	14.3%
Western Australia	50.0%	41.7%	8.3%	0.0%	0.0%	0.0%	0.0%

*Between 5 and 9 responses

Time

Length of time to receive permits

To assess how the length of the permitting process differs among jurisdictions, we asked the survey respondents three questions. Question 1 asked them to estimate the amount of time that they expected to spend acquiring the necessary permits to conduct exploration activities. Note that these are not permits to develop a mine, but rather permits to explore. In most Canadian provinces and territories, the majority of respondents said they were able to acquire the necessary exploration permits within six months. However, there are some notable differences among the provinces and territories (table 7).

Canada

Many of Canada's provinces and territories perform poorly for the amount of time required for respondents to receive necessary permits. Newfoundland & Labrador was an exception. It performed particularly well this year on this measure: 67 percent of respondents indicated that they were able to acquire the necessary permits for exploration in two months or less in that province. Another top performer in this category was Saskatchewan where half of the respondents noted that they were able to secure permits in two months or less. However, none of the respondents for the territories (Northwest Territories, Nunavut, and Yukon) indicated that they were able to acquire the necessary permits for exploration in two months or less. The Pan-Canadian average for this measure is 21 percent.

Among the territories, the lowest percentage of respondents, 20 percent, were able to acquire permits in six months or less in the Northwest Territories. Nunavut, where 57 percent of respondents indicated that they received their necessary permits in less than six months, performed better than the Yukon, where 43 percent indicated that this was the case. Overall, provinces such as Ontario and Quebec, which attract exploration investment for similar types of commodities, outperform the territories on the time it takes to receive necessary permits. For instance, 81 percent of respondents for Ontario and 64 percent for Quebec acquired the necessary permits for exploration in six months or less. Saskatchewan also performs well in this area, with 80 percent of respondents indicating that they acquired the necessary permits for exploration in 6 months or less.

Amongst the three provinces that attract the majority of Canadian exploration spending on base metals and precious metals—British Columbia, Ontario, and Quebec—the results are mixed. In Quebec (29 percent) and Ontario (19 percent) a higher percentage of respondents indicated that they expected it to take two months or less to acquire the necessary exploration permits than in British Columbia, where only 14 percent of respondents were able to acquire the necessary permits for exploration in two months or less. British Columbia also underperformed compared to its Canadian competitors on the question of timeliness; it has the lowest percentage of respondents (55 percent) among the three provinces indicating that they expected to spend six months or less acquiring the necessary permits. Where 45 percent of respondents for British Columbia indicated that they expected to spend more than 6 months to get their exploration permits, just 36 percent expected to wait that long for Quebec, and only 19 percent for Ontario.

United States

In the United States, Arizona is the jurisdiction with the highest percentage of respondents (60 percent) who indicated that they were able to attain their necessary permits in two months or less. Alaska and Arizona were the two jurisdictions where all respondents secured their permits in less

than six months, followed by Nevada where 81 percent of respondents received permits within this time. The poorest performing of the four American jurisdiction included in the analysis was Idaho, where no respondents indicated that they received their permits in six months or less.

Australia

In Australia, out of the six jurisdictions included in this analysis, only one, Victoria, had no respondents indicate that they were able to receive their permits within two months or less. Additionally, 71 percent of respondents in Victoria and Northern Territory indicated they waited for more than six months to receive permits. Western Australia performed the best on this measure: 50 percent of respondents indicated that they received their permits in two months or less. Western Australia also had the highest percentage of respondents indicating that they received their permits in 6 months or less, at 92 percent.

Of particular concern for Australia are the sizable percentages of respondents in a few of the Australian states that indicated that it was taking 15 months or more to receive their permits. For example, in Northern Territory and South Australia, 43 percent and 33 percent, respectively, of respondents indicated that it took longer than 15 months to receive their permits.

Overall

A comparison of the three regions included in the survey—Canada, the United States, and Australia—indicates that, on average, a higher percentage of respondents indicated that they received their permits in six months or less from US jurisdictions. The average was 70 percent amongst US jurisdictions, 60 percent amongst Canadian jurisdictions, and 50 percent amongst the Australian jurisdictions.

Changes over time

We also tried to determine how the length of time that explorers expected to spend attaining permit approval had changed over the last decade.

Canada

The results indicate that, in general, permit approval times are lengthening in Canada. In six out of nine provinces and territories included in the survey (British Columbia, Manitoba, Northwest Territories, Nunavut, Ontario, and Yukon), 55 percent or more of respondents said that the time to permit approval had lengthened over the last 10 years. In three cases—Newfoundland & Labrador, Quebec, and Saskatchewan—the majority of respondents indicated that permit approval times had shortened or stayed the same (table 8).

Table 8: Changes in the Time to Permit Approval Over the Last 10 Years

	Shortened Considerably	Shortened Somewhat	Stayed the Same	Lengthened Somewhat	Lengthened Considerably
British Columbia	4.5%	0.0%	18.2%	40.9%	36.4%
Manitoba	0.0%	6.3%	12.5%	12.5%	68.8%
Newfoundland & Labrador*	33.3%	0.0%	50.0%	16.7%	0.0%
Northwest Territories*	0.0%	0.0%	0.0%	40.0%	60.0%
Nunavut*	0.0%	0.0%	14.3%	42.9%	42.9%
Ontario	0.0%	12.5%	31.3%	43.8%	12.5%
Quebec	0.0%	0.0%	57.1%	28.6%	14.3%
Saskatchewan	0.0%	20.0%	40.0%	30.0%	10.0%
Yukon*	0.0%	0.0%	0.0%	42.9%	57.1%
Alaska*	14.3%	14.3%	28.6%	42.9%	0.0%
Arizona*	0.0%	0.0%	80.0%	20.0%	0.0%
Idaho*	16.7%	33.3%	16.7%	33.3%	0.0%
Nevada	0.0%	12.5%	68.8%	18.8%	0.0%
New South Wales	0.0%	0.0%	29.4%	41.2%	29.4%
Northern Territory*	0.0%	0.0%	28.6%	28.6%	42.9%
Queensland*	11.1%	0.0%	33.3%	22.2%	33.3%
South Australia*	0.0%	0.0%	60.0%	0.0%	40.0%
Victoria*	0.0%	16.7%	16.7%	16.7%	50.0%
Western Australia	0.0%	15.4%	69.2%	7.7%	7.7%

*Between 5 and 9 responses

The results for Saskatchewan show that 40 percent of respondents indicated that the time to permit approval had either lengthened somewhat or lengthened considerably. Of the three provinces attracting the bulk of Canada's exploration spending discussed above, British Columbia had the highest percentage of respondents (77 percent) indicating that the time to permit approval had either lengthened somewhat or lengthened considerably, compared to 56 percent for Ontario and 43 percent for Quebec. Of these provinces, British Columbia had the highest percentage of respondents (36 percent) indicating that the time to permit approval had lengthened considerably. Indeed, it appears that many of the Canadian jurisdictions included could benefit from stemming or reducing lengthening exploration permit times.

United States

For all of the US states included in the sub-survey, less than 50 percent of respondents indicated that the time needed for permit approval had lengthened. Specifically, while 43 percent of respondents indicated that the time to permit approval had lengthened somewhat or considerably for Alaska, only 19 percent of respondents for Nevada said the same.

Australia

The results for Australia indicate that views on the time for permit approvals varies across jurisdictions. In four of the six Australian jurisdictions 50 percent or more respondents indicated that the time to permit approval had either lengthened somewhat or considerably. Western Australia performed the best on this measure, with just 15 percent of respondents indicating that the time to permit approval had lengthened in some way, while New South Wales and Northern Territory were the worst performers with 71 percent saying so. Victoria had the highest percentage of respondents (50 percent) of any Australian jurisdiction included in this analysis indicating that the time to permit approval had lengthened considerably.

Overall

Overall, Canada is performing poorly relative to other regions due to the on-going lengthening of its permit approval times. The average percentage of respondents for the Canadian jurisdictions indicating that permit approval times had lengthened either somewhat or considerably over the past 10 years was 67 percent, compared to 53 percent for Australia and 29 percent in the United States.

Timeline Certainty

It is also important to those applying for exploration permits that the permit-granting organizations adhere to their advertised timelines. If the organizations do not meet the expected milestones, thereby extending the time it takes to get a permit, it can place additional costs and risks on firms and act as a deterrent to investment (table 9).

Canada

In Canada, Manitoba (88 percent) and Northwest Territories (80 percent) had the highest percentages of respondents indicating that the permitting authority met its own established timelines or milestones only about half the time or less. Newfoundland & Labrador was the top performer in the country for timeline certainty, with all respondents for the province indicating that timelines were met between 80 percent and 100 percent of the time.

Table 9: How Often Did the Jurisdiction Meet its Own Established Timelines/Milestones for Permit Approval Decisions?

	Most of the time (80 to 100%)	Some of the time (60 to 80%)	About half the time (40 to 60%)	Less than half the time (20 to 40%)	Rarely met own timelines (0 to 20%)
British Columbia	14.3%	28.6%	19.0%	14.3%	23.8%
Manitoba	6.3%	6.3%	6.3%	25.0%	56.3%
Newfoundland & Labrador*	100.0%	0.0%	0.0%	0.0%	0.0%
Northwest Territories*	0.0%	20.0%	40.0%	20.0%	20.0%
Nunavut*	0.0%	42.9%	28.6%	14.3%	14.3%
Ontario	25.0%	37.5%	18.8%	12.5%	6.3%
Quebec	50.0%	14.3%	28.6%	7.1%	0.0%
Saskatchewan	60.0%	40.0%	0.0%	0.0%	0.0%
Yukon*	28.6%	14.3%	0.0%	14.3%	42.9%
Alaska*	71.4%	14.3%	0.0%	14.3%	0.0%
Arizona*	80.0%	20.0%	0.0%	0.0%	0.0%
Idaho*	50.0%	33.3%	0.0%	16.7%	0.0%
Nevada	60.0%	33.3%	6.7%	0.0%	0.0%
New South Wales	11.8%	11.8%	23.5%	41.2%	11.8%
Northern Territory*	0.0%	28.6%	0.0%	42.9%	28.6%
Queensland*	11.1%	11.1%	22.2%	44.4%	11.1%
South Australia*	0.0%	33.3%	33.3%	0.0%	33.3%
Victoria*	0.0%	14.3%	14.3%	28.6%	42.9%
Western Australia	63.6%	18.2%	18.2%	0.0%	0.0%

*Between 5 and 9 responses

United States

In the United States, the top performing jurisdiction was Arizona, where 80 percent of respondents indicated that established timelines were met 80 to 100 percent of the time. The poorest performer on this measure was Idaho, where only 50 percent of respondents indicated that the state met its own established timelines most of the time.

Australia

Western Australia was the top performing state in Australia on this measure: 63 percent said that the state met its own established timelines or milestones most or all of the time, while only 18 percent of respondents for the state indicated that the permitting authority met its timelines only about half the time or less. This is in stark comparison to Victoria, where 86 percent of respondents indicated established timelines were met only about half the time or less, and Queensland where 78 percent said the same. Moreover, 43 percent of respondents for Victoria and 33 percent for South Australia said that timelines were rarely met.

Transparency

Another critical issue in the granting of permits for exploration is transparency. When those prospecting for exploitable mineral deposits do not understand what the rules are or how they are applied, political interference and even corruption can enter the process, with the result that investment may be deterred (table 10).

Canada

In this area, Newfoundland & Labrador and Saskatchewan were the top performers in the sub-survey. No respondents in Newfoundland & Labrador reported that a lack of transparency in the permitting process was a deterrent to investment, a performance unmatched by any other Canadian jurisdiction. Just 10 percent of respondents for Saskatchewan indicated that a lack of transparency was a deterrent to investment.

Of the three territories, Nunavut's process was judged more transparent than that of the Northwest Territories or Yukon: 57 percent of respondents for Nunavut indicated that a lack of transparency was a deterrent to investment. The feedback was worse for the Northwest Territories (80 percent deterred) and Yukon (100 percent). In fact, at 100 percent, Yukon had the highest percentage of respondents (out of 19 jurisdictions included in the sub-survey) reporting that transparency in the exploration permit process was a deterrent to investment.

Amongst the three provinces that attract the majority of Canadian exploration spending, Ontario performed the best with 31 percent of respondents indicating that a lack of transparency in the exploration permitting process was a deterrent to investment, followed by Quebec at 36 percent, and then British Columbia at 55 percent. This is an area where many Canadian jurisdictions performed poorly compared to their counterparts in the United States.

Table 10: How Does the Level of Transparency in the Permitting Process Affect Exploration Investment?

	Encourages exploration investment	Not a deterrent to exploration investment	Is a mild deterrent to exploration investment	Is a strong deterrent to exploration investment	Would not pursue exploration investment due to this factor
British Columbia	22.7%	22.7%	31.8%	13.6%	9.1%
Manitoba	6.3%	0.0%	12.5%	50.0%	31.3%
Newfoundland & Labrador*	83.3%	16.7%	0.0%	0.0%	0.0%
Northwest Territories*	20.0%	0.0%	0.0%	80.0%	0.0%
Nunavut*	14.3%	28.6%	42.9%	14.3%	0.0%
Ontario	31.3%	37.5%	18.8%	6.3%	6.3%
Quebec	42.9%	21.4%	28.6%	7.1%	0.0%
Saskatchewan	50.0%	40.0%	10.0%	0.0%	0.0%
Yukon*	0.0%	0.0%	42.9%	57.1%	0.0%
Alaska*	71.4%	28.6%	0.0%	0.0%	0.0%
Arizona*	60.0%	40.0%	0.0%	0.0%	0.0%
Idaho*	33.3%	50.0%	16.7%	0.0%	0.0%
Nevada	29.4%	41.2%	29.4%	0.0%	0.0%
New South Wales	11.1%	11.1%	33.3%	38.9%	5.6%
Northern Territory*	14.3%	42.9%	0.0%	42.9%	0.0%
Queensland*	11.1%	22.2%	33.3%	33.3%	0.0%
South Australia*	16.7%	50.0%	33.3%	0.0%	0.0%
Victoria*	0.0%	42.9%	0.0%	57.1%	0.0%
Western Australia	66.7%	25.0%	8.3%	0.0%	0.0%

*Between 5 and 9 responses

United States

In this category, Alaska and Arizona were the top performers in the United States, with no respondents indicating that the level of transparency was deterring investment. Idaho also performed relatively well with just 17 percent of respondents signaling that transparency was a deterrent for investment. Nevada performed the worst in the United States, with 29 percent of respondents saying that the level of transparency was a deterrent to investment.

Australia

New South Wales had 78 percent of respondents indicate that the level of transparency in the jurisdiction was a deterrent to investment. Victoria and Queensland also had 55 percent or more respondents say that transparency was a deterrent to investment. Western Australia was the top performer as only 8 percent of respondents said that the level of transparency was a deterrent to investment.

Overall

Many Australian and Canadian jurisdictions performed poorly on transparency. For example, five out of nine Canadian jurisdictions in the survey (19 jurisdictions in total) had 55 percent or more respondents indicate that the level of transparency in the permitting process was a deterrent to investment. An average of 51 percent of respondents for Canadian jurisdictions indicated that a lack of transparency was a deterrent to investment. This compares to an average of 48 percent for Australia, and only 12 percent for the United States.

Confidence

We also asked our survey respondents how confident they were that they would eventually be granted a permit. When firms are not confident that they will be able to acquire the necessary permits to carry out their exploration activities once they have met the regulatory requirements, it is less likely that they will consider investing in the given jurisdiction (table 11).

Canada

When asked about how confident they were that the necessary permits will eventually be granted, respondents rated many Canadian jurisdictions as lagging behind other regions. However, Newfoundland & Labrador and Saskatchewan performed the best; all respondents were highly confident or confident they would be granted the necessary permits in those provinces. Further, 93 percent of respondents for Quebec and 88 percent for Ontario reported that they were confident or highly confident that they would receive their permits. In British Columbia, 41 percent of respondents were confident and 32 percent were highly confident that they would be granted the necessary permits.

In the Yukon and Nunavut, 57 percent of respondents indicated that they were either highly confident or confident that they would receive the necessary permits. For Manitoba and the Northwest Territories less than 45 percent of respondents indicated that they were highly confident or confident that they would be granted the necessary permits.

Table 11: Confidence Level of Respondents that They Will Eventually be Granted the Necessary Permit(s)

	Not at all Confident	Low Confidence	Confident	High Confidence
British Columbia	4.5%	22.7%	40.9%	31.8%
Manitoba	25.0%	43.8%	18.8%	12.5%
Newfoundland & Labrador*	0.0%	0.0%	16.7%	83.3%
Northwest Territories*	20.0%	40.0%	20.0%	20.0%
Nunavut*	14.3%	28.6%	42.9%	14.3%
Ontario	0.0%	12.5%	62.5%	25.0%
Quebec	0.0%	7.1%	42.9%	50.0%
Saskatchewan	0.0%	0.0%	50.0%	50.0%
Yukon*	0.0%	42.9%	57.1%	0.0%
Alaska*	0.0%	0.0%	14.3%	85.7%
Arizona*	0.0%	0.0%	0.0%	100.0%
Idaho*	0.0%	0.0%	66.7%	33.3%
Nevada	0.0%	0.0%	50.0%	50.0%
New South Wales	5.6%	11.1%	77.8%	5.6%
Northern Territory*	0.0%	25.0%	62.5%	12.5%
Queensland*	0.0%	30.0%	40.0%	30.0%
South Australia*	0.0%	14.3%	57.1%	28.6%
Victoria*	28.6%	14.3%	57.1%	0.0%
Western Australia	0.0%	0.0%	23.1%	76.9%

*Between 5 and 9 responses

United States

For all four US jurisdictions—Alaska, Arizona, Idaho, and Nevada—all respondents reported that they were either highly confident or confident that they would receive their necessary permits. Over 85 percent of respondents for Alaska and Arizona indicated that they were highly confident that they would receive their necessary permits.

Australia

Two Australian jurisdictions—Victoria and Western Australia—performed quite well for confidence in the permitting process, with 86 percent and 100 percent of respondents respectively indicating that they were either highly confident or confident that they would receive their permits. New South Wales also performed well, with 83 percent of respondents indicating that they were confident or highly

confident that they would receive their permits. In Northern Territory, Queensland, and Victoria less than 80 percent of respondents were positive, which demonstrates a need for improvement.

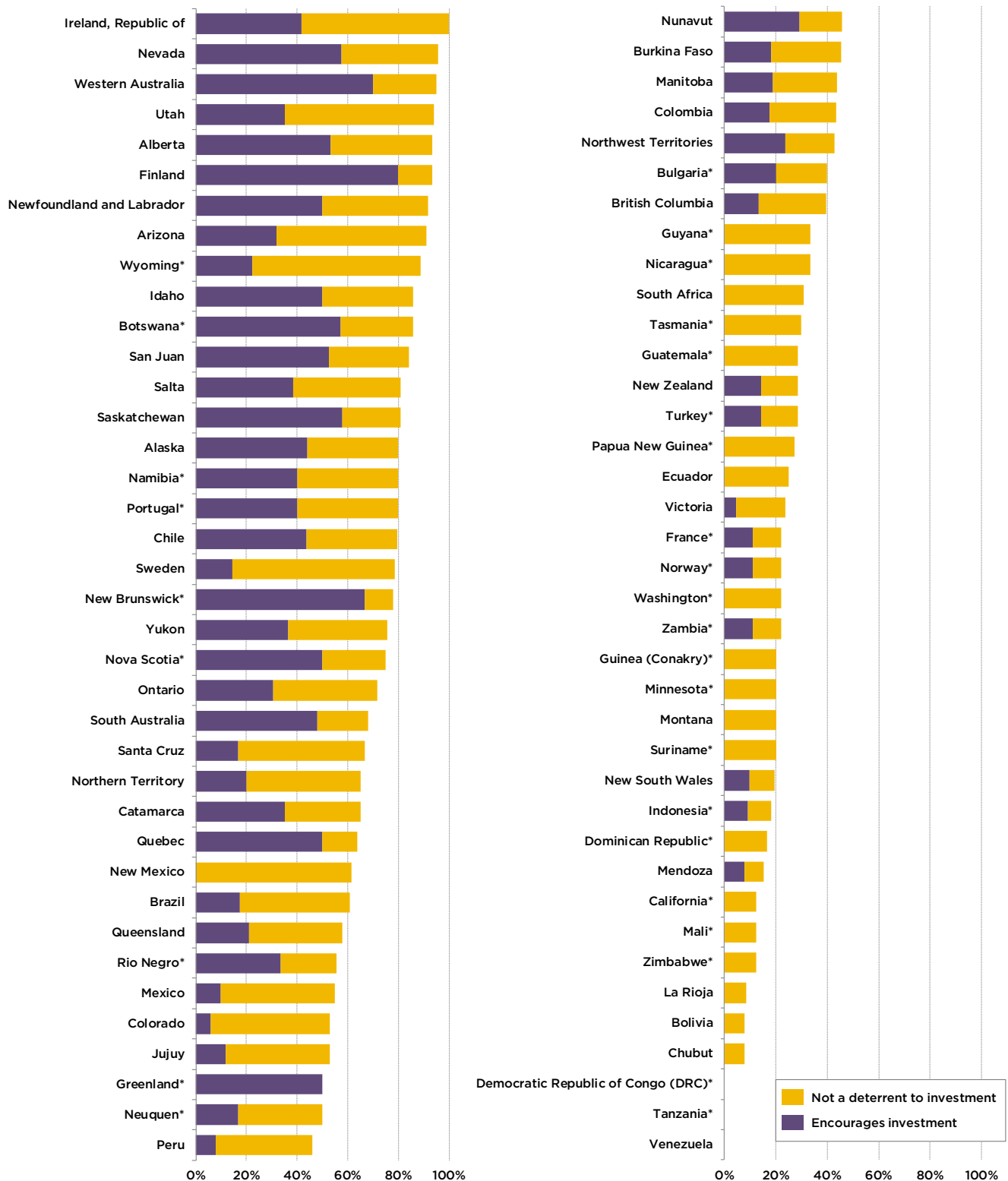
Overall

When comparing the three regions included in the survey—Canada, the United States, and Australia—respondents are less confident, on average, that Canadian jurisdictions would eventually grant the necessary permits. This average confidence rate was 100 percent amongst US jurisdictions, 79 percent amongst the Australian jurisdictions, and 71 percent amongst Canadian jurisdictions.

Explanation of the figures

Figures 16 through 30 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 16: Uncertainty Concerning the Administration, Interpretation and Enforcement of Existing Regulations



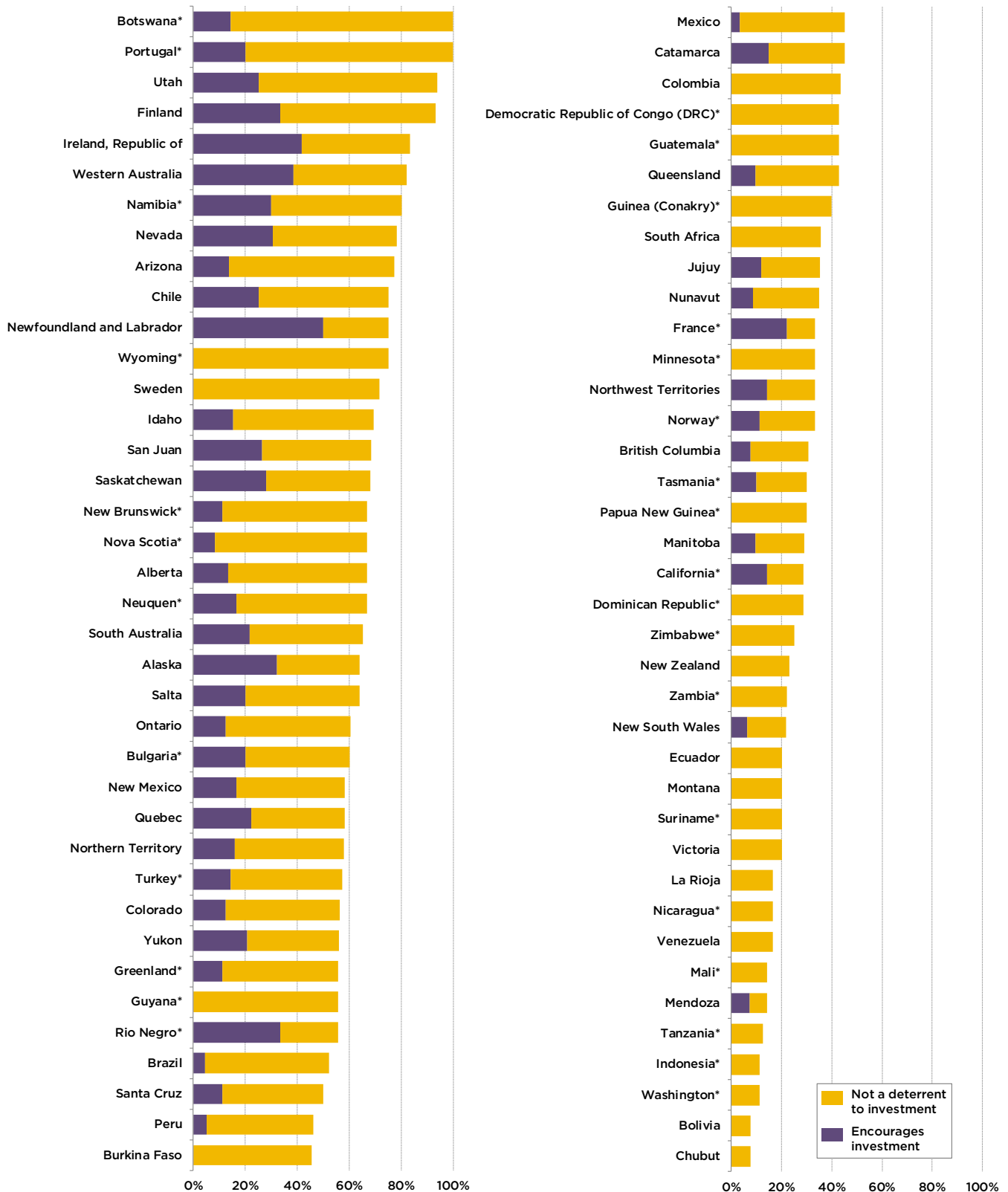
* Between 5 and 9 responses

Figure 17: Uncertainty Concerning Environmental Regulations



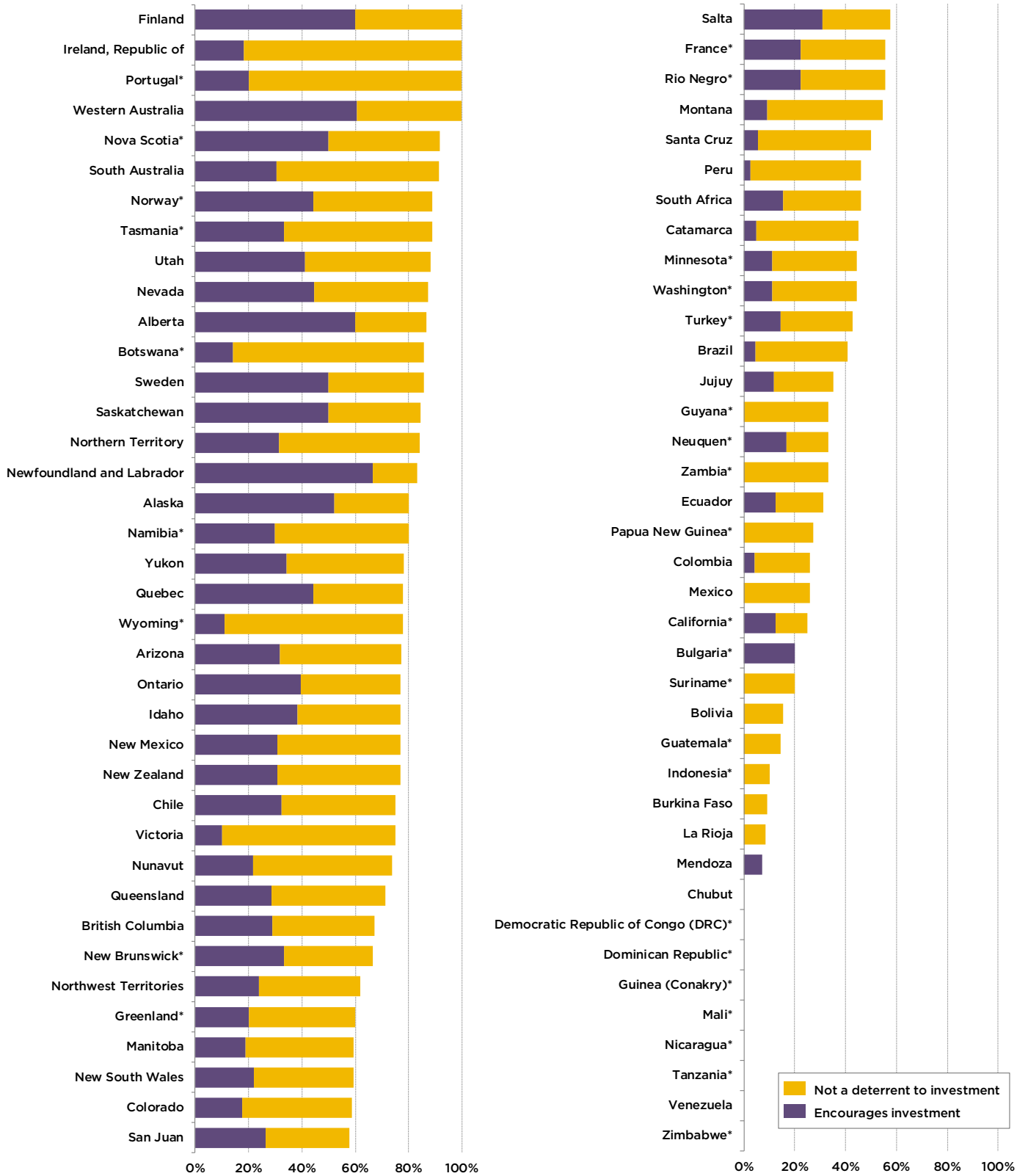
* Between 5 and 9 responses

Figure 18: Regulatory Duplication and Inconsistencies



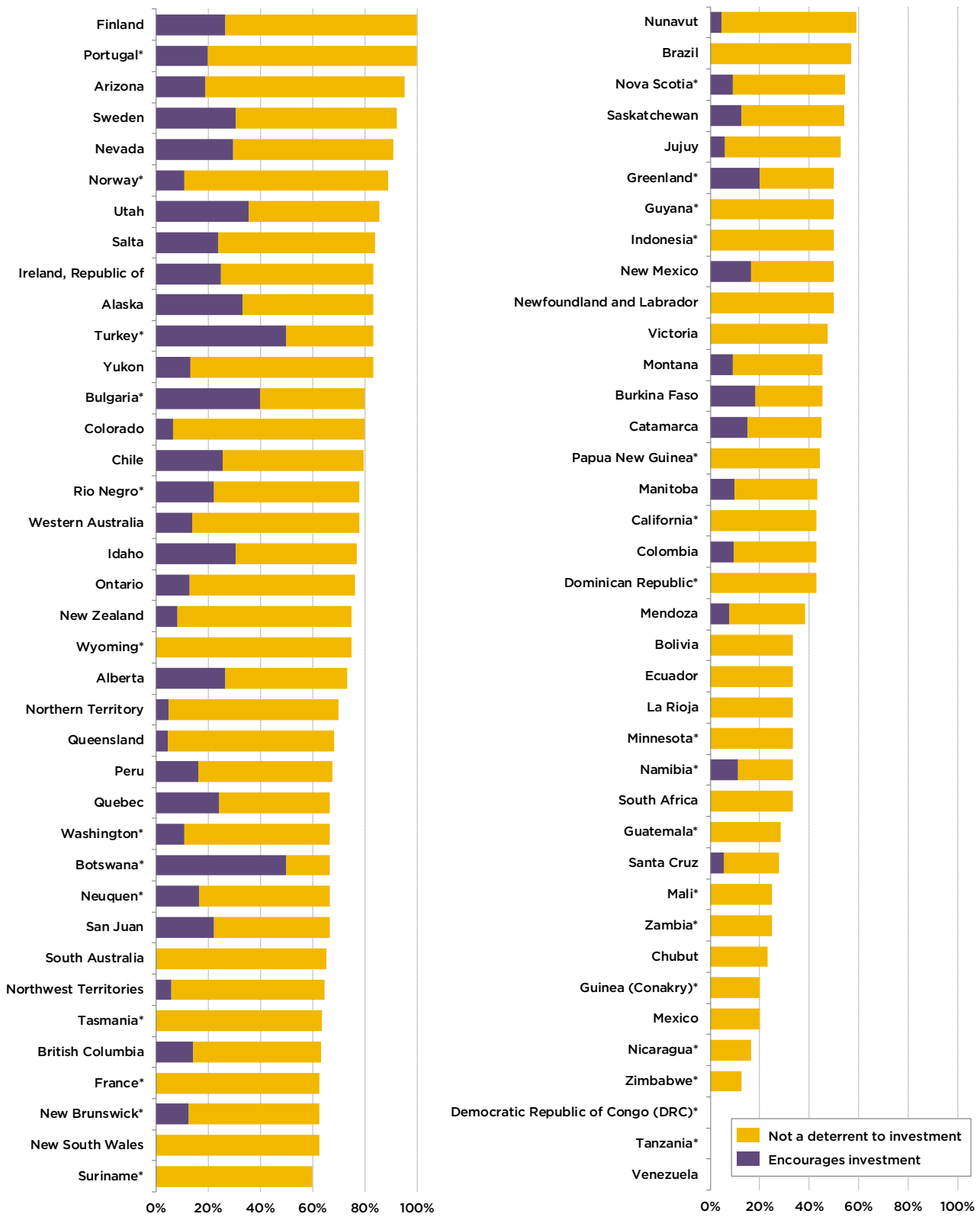
* Between 5 and 9 responses

Figure 19: Legal System



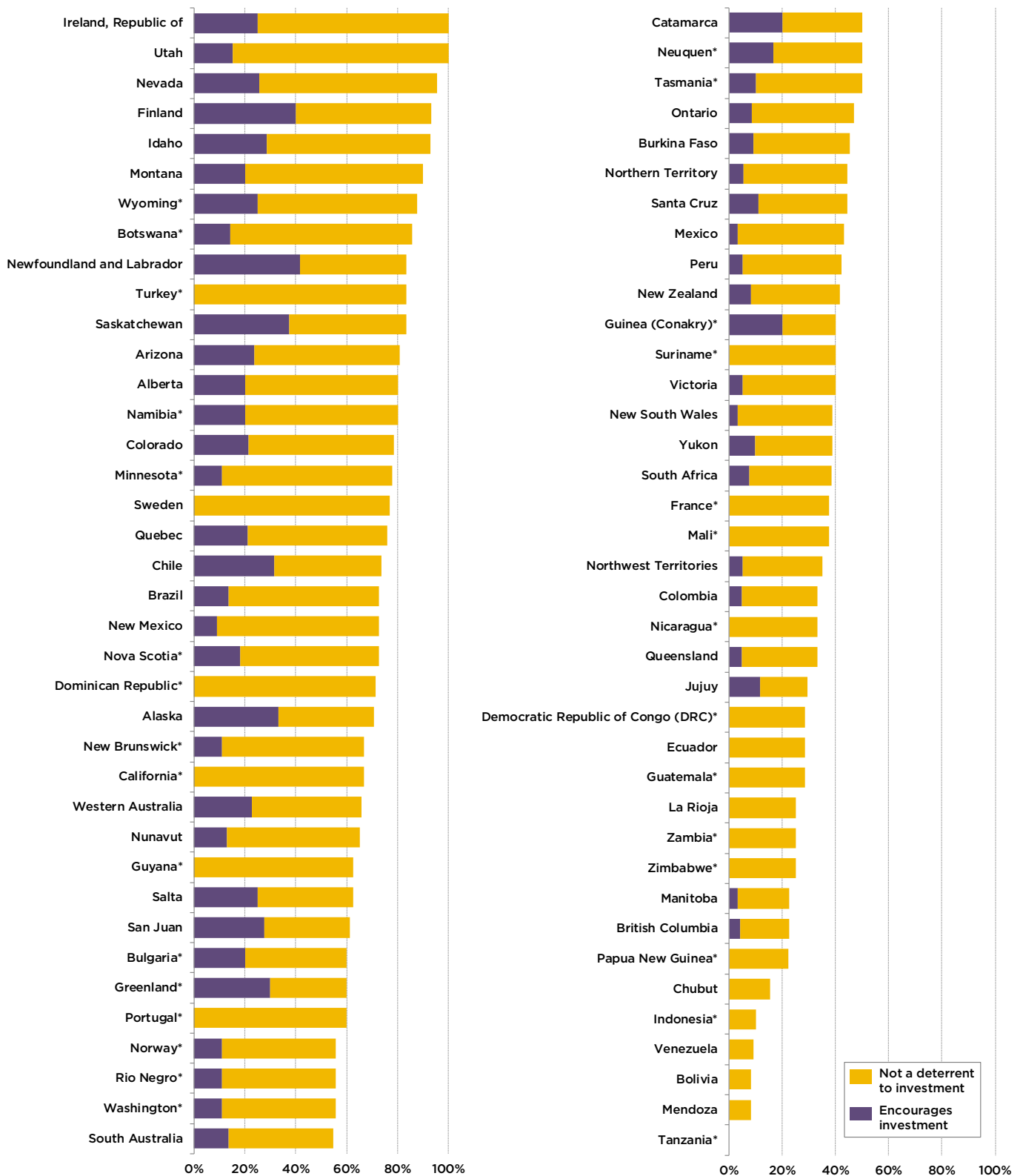
* Between 5 and 9 responses

Figure 20: Taxation Regime



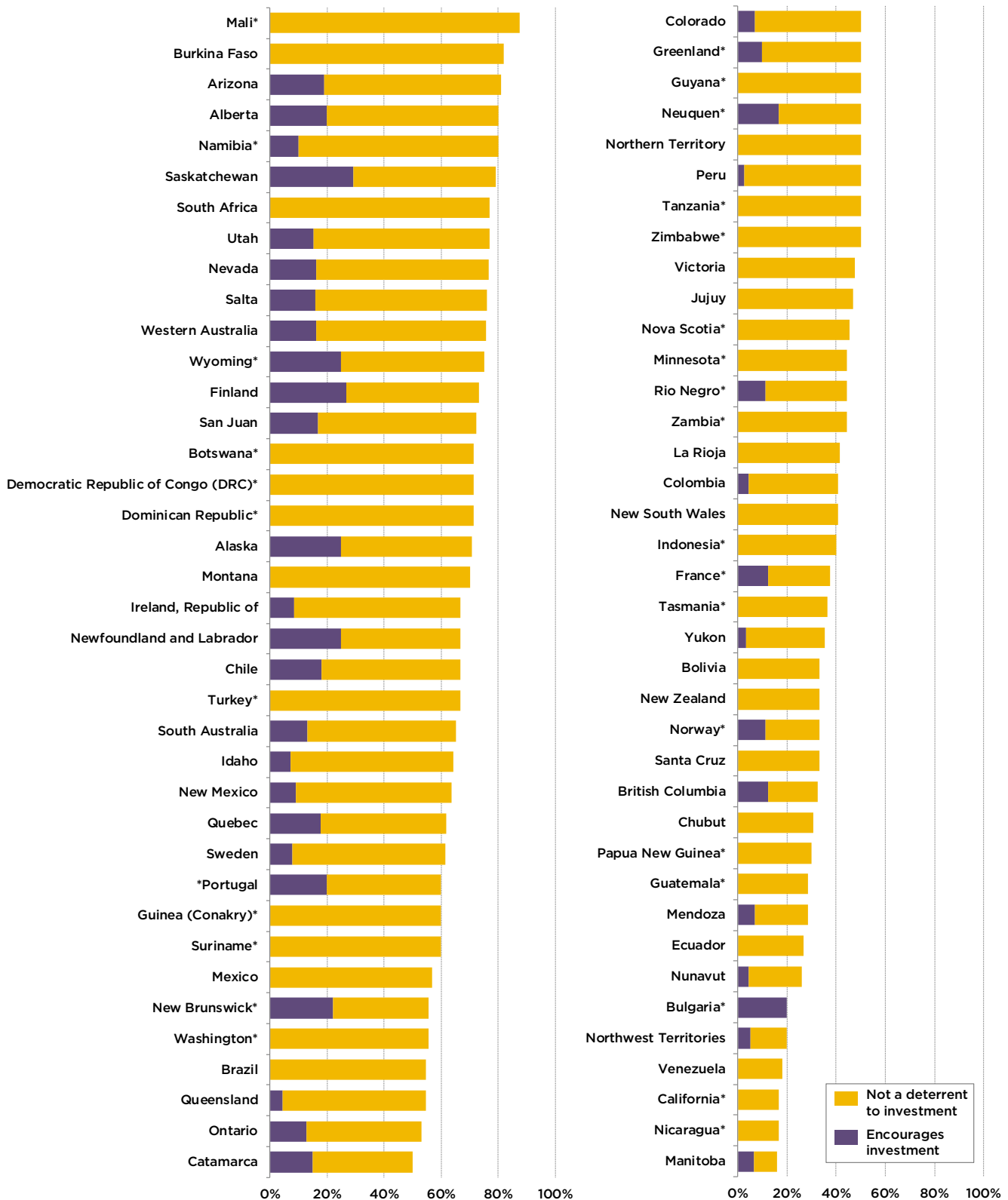
* Between 5 and 9 responses

Figure 21: Uncertainty Concerning Disputed Land Claims



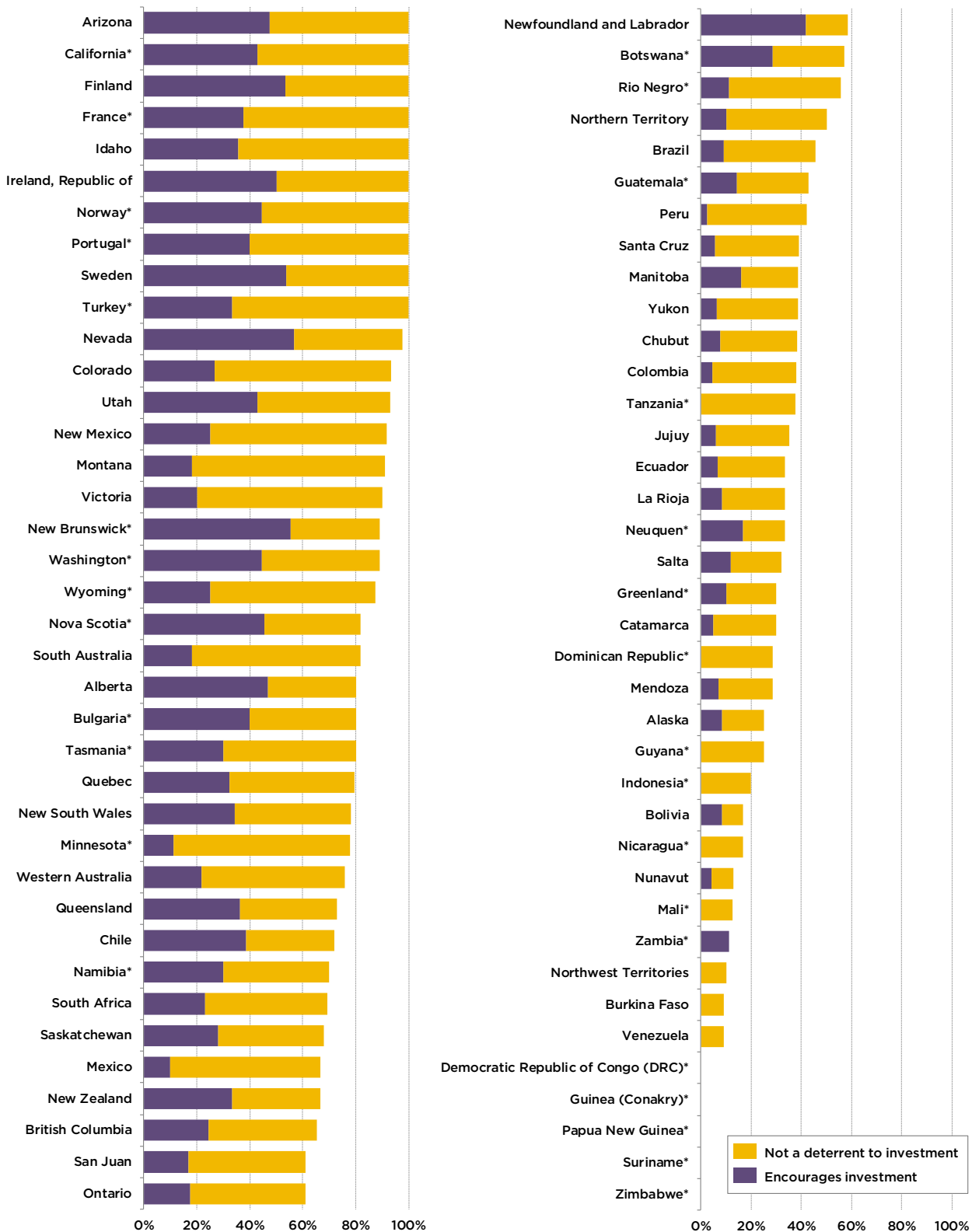
* Between 5 and 9 responses

Figure 22: Uncertainty Concerning Protected Areas



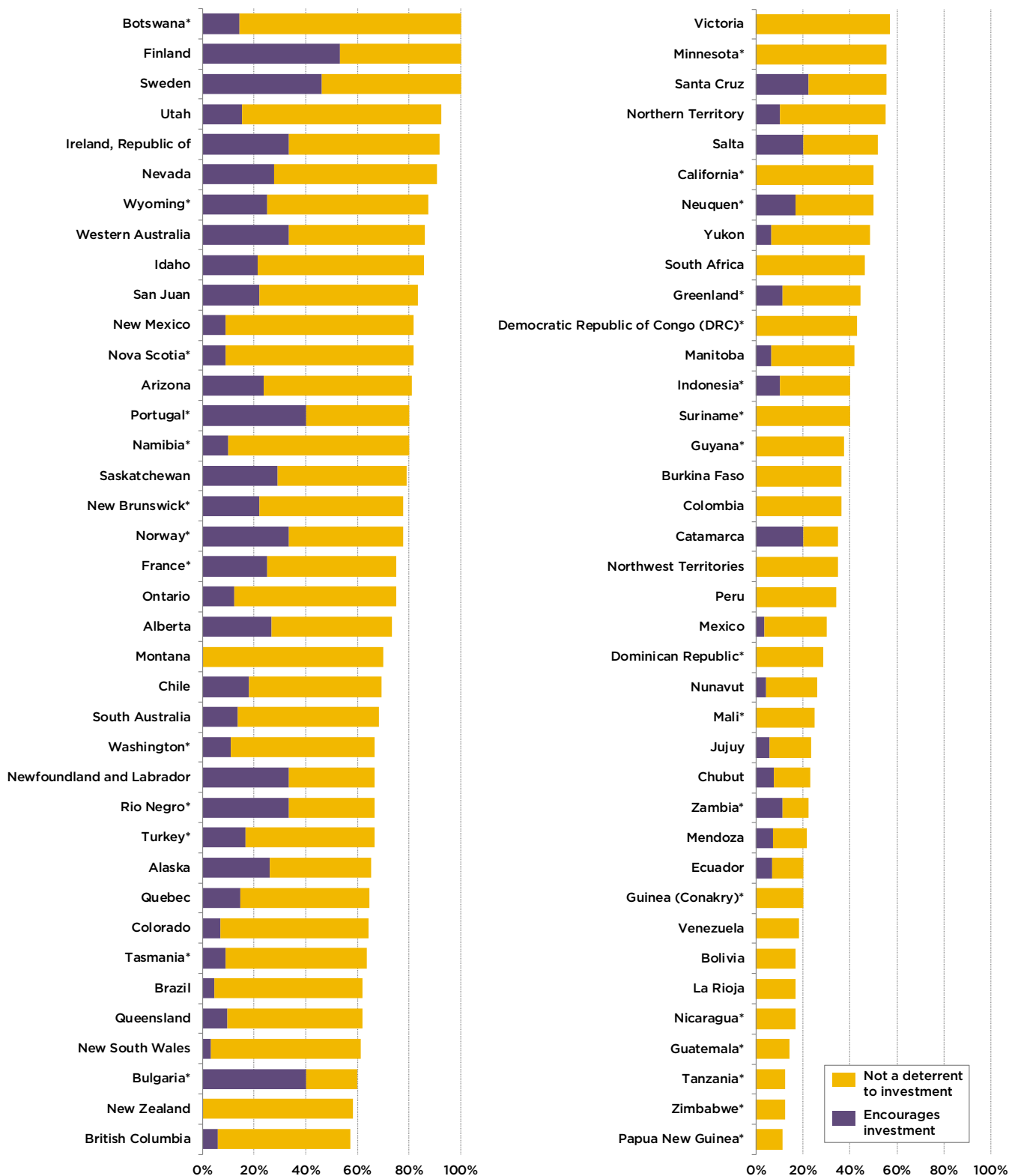
* Between 5 and 9 responses

Figure 23: Quality of Infrastructure



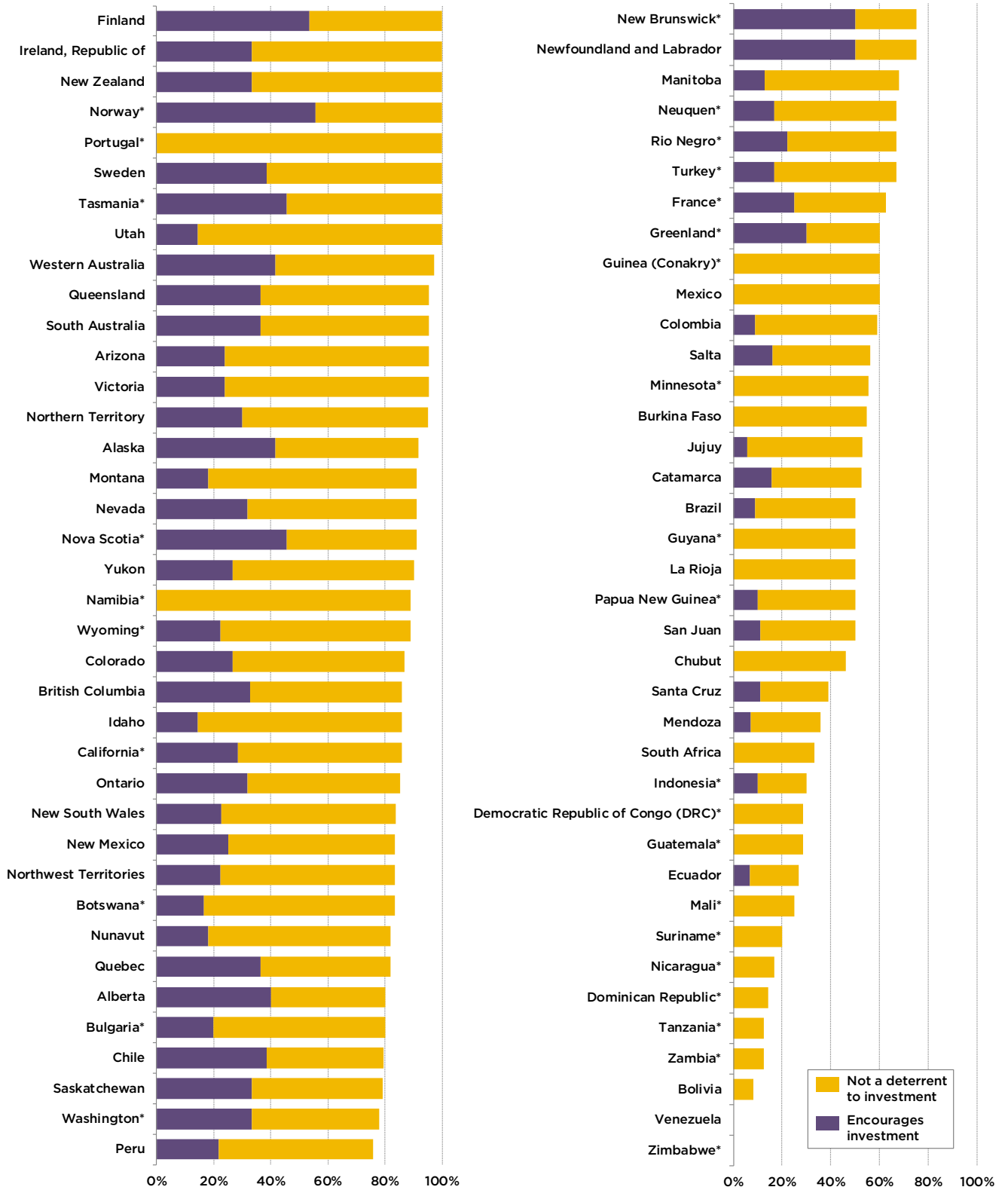
* Between 5 and 9 responses

Figure 24: Socioeconomic Agreements/ Community Development Conditions



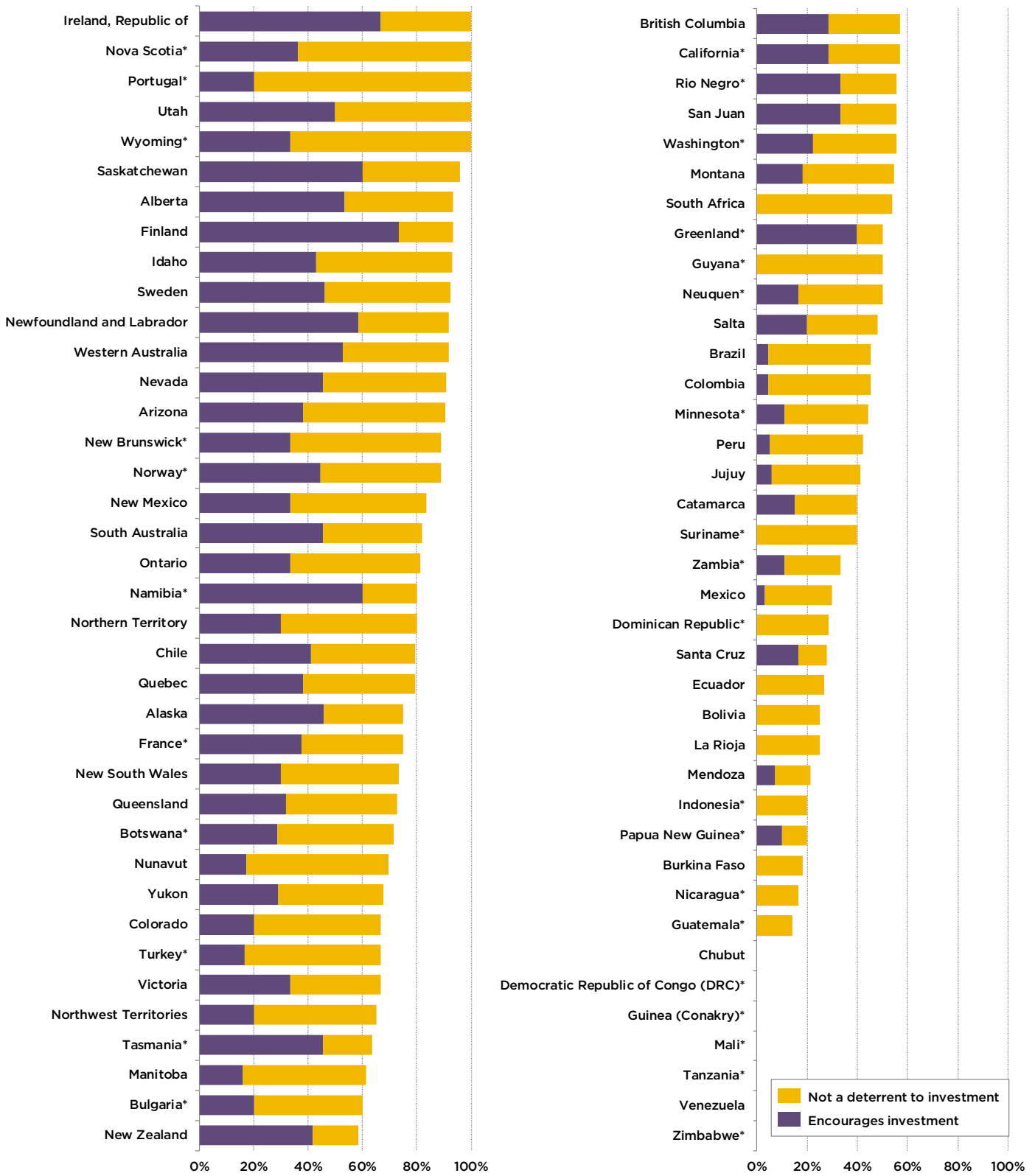
* Between 5 and 9 responses

Figure 25: Trade Barriers



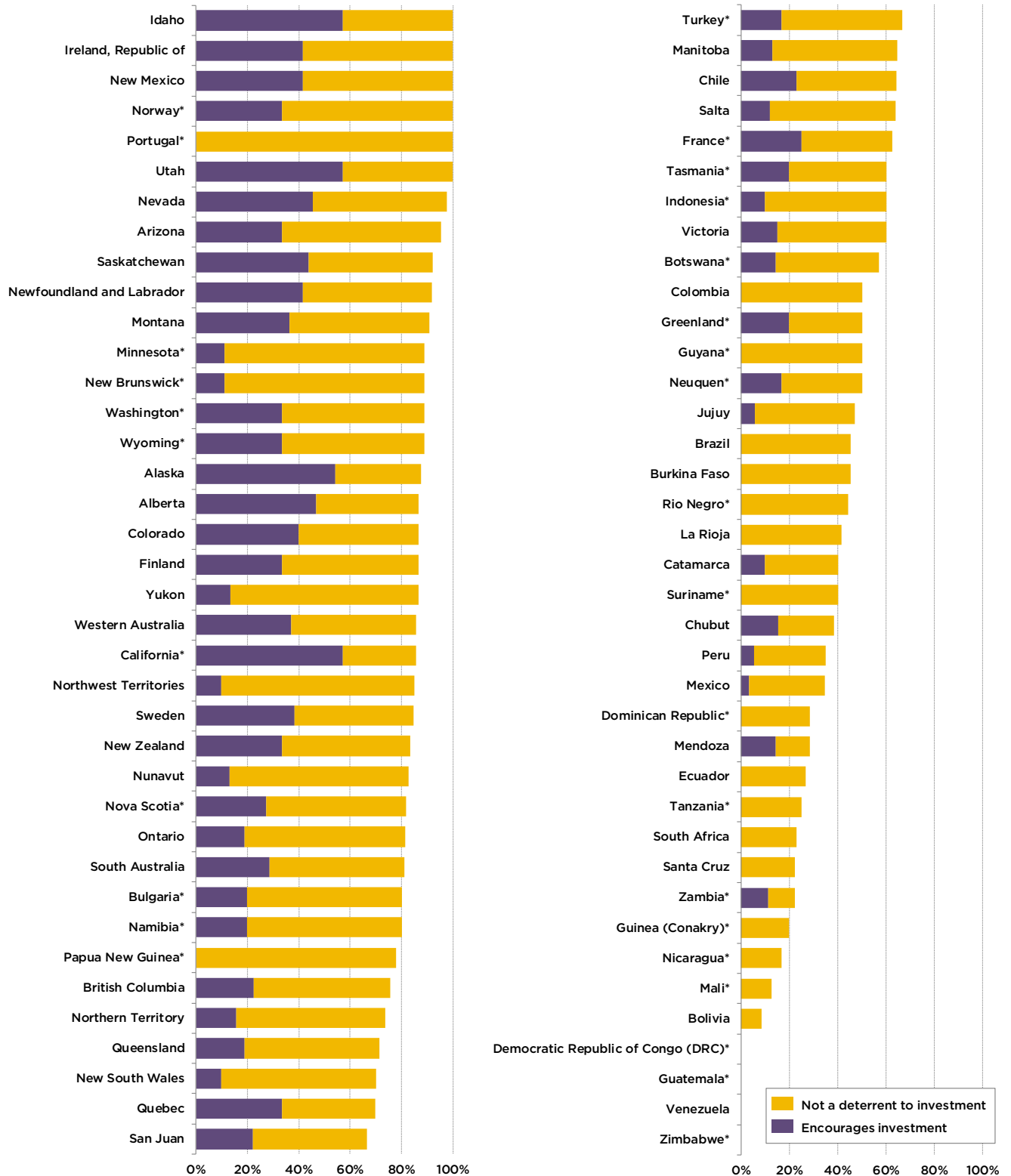
* Between 5 and 9 responses

Figure 26: Political Stability



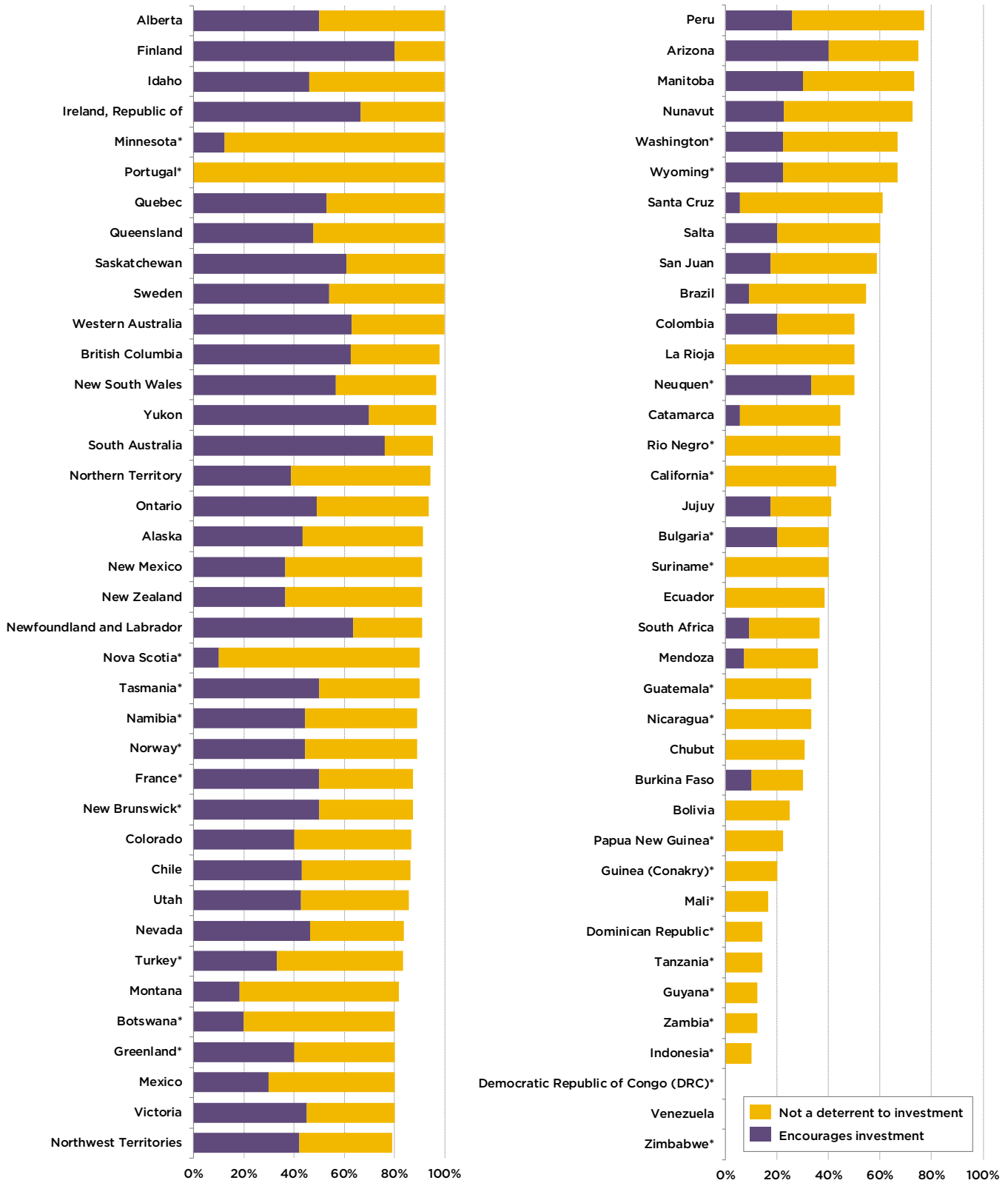
* Between 5 and 9 responses

Figure 27: Labor Regulations/Employment Agreements and Labour Militancy/Work Disruptions



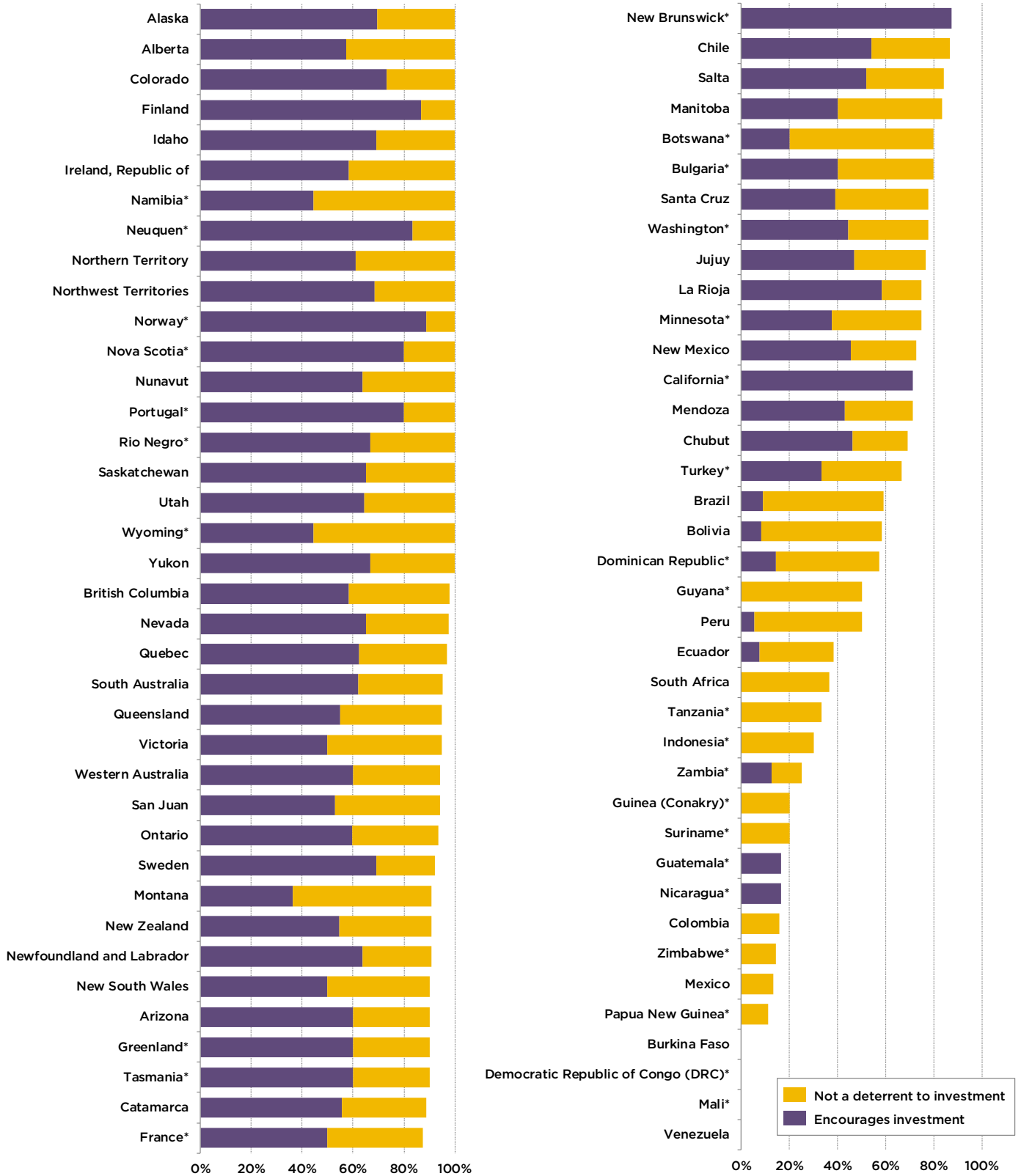
* Between 5 and 9 responses

Figure 28: Geological Database



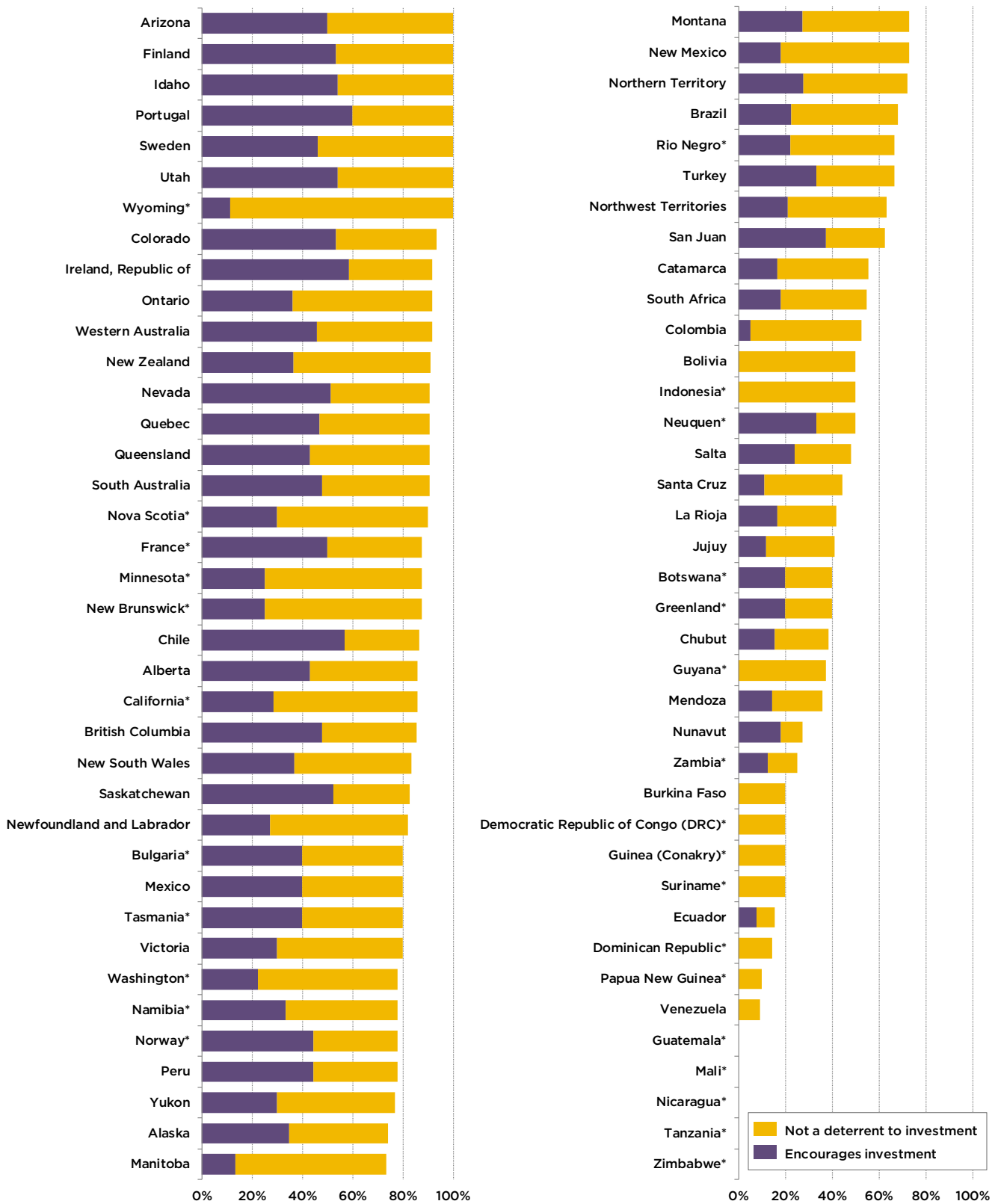
* Between 5 and 9 responses

Figure 29: Security



* Between 5 and 9 responses

Figure 30: Availability of Labor/Skills



* Between 5 and 9 responses

Acknowledgments

We would like to thank the hundreds of members of the mining community who have responded to the survey this year and in previous years. You do a service to your industry by providing such valuable information.

We would also like to thank a number of mining associations that generously helped inform their readers and members of the opportunity to participate in the survey. We would also like to thank then Executive Director Michael Walker and Laura Jones for conceptualizing this project over 20 years ago.

About the Authors



Ashley Stedman

Ashley Stedman is a senior policy analyst working in the Centre for Natural Resources. She holds a B.A. (Honours) from Carleton University and a Master of Public Policy from the University of Calgary. Ms. Stedman is the co-author of a number of Fraser Institute studies, including the annual *Global Petroleum Survey* and *Survey of Mining Companies*. Ms. Stedman's research has been covered by various prominent media outlets including the Wall Street Journal, and her commentaries have appeared in major Canadian and American newspapers such as the *National Post*, *Financial Post*, *Vancouver Sun*, and *Edmonton Journal*.



Jairo Yunis

Jairo Yunis is a Junior Policy Analyst at the Fraser Institute. He holds a Bachelor of Political Science and International Relations from the Pontifical Xaverian University of Colombia and a Master's degree in Public Policy from the University of Calgary. Jairo has previously worked for government in Colombia in policy issues related to local economic development and competitiveness. He specializes in energy policy, with a focus on carbon pricing and electricity markets.



Elmira Aliakbari

Elmira Aliakbari is Associate Director of Natural Resource Studies at the Fraser Institute. She received a Ph.D. in Economics from the University of Guelph, and M.A. and B.S. degrees in Economics, both from the University of Tehran in Iran. She has studied public policy involving energy and the environment for nearly eight years. Prior to joining the Fraser Institute, Ms. Aliakbari was Director of Research, Energy, Ecology and Prosperity with the Frontier Center for Public Policy. She has presented her work at many academic conferences and has been published in the prestigious academic journal *Energy Economics*. Ms. Aliakbari's research has been discussed in prominent media outlets including the *Wall Street Journal*, and her commentaries have appeared in major Canadian and American newspapers such as the *Globe and Mail*, *Washington Times*, *National Post*, and *Financial Post*.

Publishing Information

Distribution

These publications are available from <<http://www.fraserinstitute.org>> in Portable Document Format (PDF) and can be read with Adobe Acrobat® or Adobe Reader®, versions 8 or later. Adobe Reader® DC, the most recent version, is available free of charge from Adobe Systems Inc. at <<http://get.adobe.com/reader/>>. Readers having trouble viewing or printing our PDF files using applications from other manufacturers (e.g., Apple's Preview) should use Reader® or Acrobat®.

Ordering publications

To order printed publications from the Fraser Institute, please contact:

- e-mail: sales@fraserinstitute.org
- telephone: 604.688.0221 ext. 580 or, toll free, 1.800.665.3558 ext. 580
- fax: 604.688.8539.

Media

For media enquiries, please contact our communications department via e-mail: communications@fraserinstitute.org; telephone: 604.714.4582. In Toronto, contact our media specialist via telephone at 416.363.6575, ext. 238.

Copyright

Copyright © 2020 by the Fraser Institute. All rights reserved. No part of this publication may be reproduced in any manner whatsoever without written permission except in the case of brief passages quoted in critical articles and reviews.

Date of issue

February 2020

ISBN

978-0-88975-592-5

Citation

Stedman, Ashley, Jairo Yunis, and Elmira Aliakbari (2020). *Fraser Institute Annual Survey of Mining Companies 2019*. Fraser Institute. <<http://www.fraserinstitute.org>>.

Supporting the Fraser Institute

To learn how to support the Fraser Institute, please contact

- Development Department, Fraser Institute
Fourth Floor, 1770 Burrard Street
Vancouver, British Columbia, V6J 3G7 Canada
- telephone, toll-free: 1.800.665.3558 ext. 548
- e-mail: development@fraserinstitute.org
- website: <http://www.fraserinstitute.org/donate>

Purpose, funding, and independence

The Fraser Institute provides a useful public service. We report objective information about the economic and social effects of current public policies, and we offer evidence-based research and education about policy options that can improve the quality of life.

The Institute is a non-profit organization. Our activities are funded by charitable donations, unrestricted grants, ticket sales, and sponsorships from events, the licensing of products for public distribution, and the sale of publications.

All research is subject to rigorous review by external experts, and is conducted and published separately from the Institute's Board of Trustees and its donors.

The opinions expressed by authors are their own, and do not necessarily reflect those of the Institute, its Board of Trustees, its donors and supporters, or its staff. This publication in no way implies that the Fraser Institute, its trustees, or staff are in favour of, or oppose the passage of, any bill; or that they support or oppose any particular political party or candidate.

As a healthy part of public discussion among fellow citizens who desire to improve the lives of people through better public policy, the Institute welcomes evidence-focused scrutiny of the research we publish, including verification of data sources, replication of analytical methods, and intelligent debate about the practical effects of policy recommendations.

About the Fraser Institute

Our mission is to improve the quality of life for Canadians, their families, and future generations by studying, measuring, and broadly communicating the effects of government policies, entrepreneurship, and choice on their well-being.

Notre mission consiste à améliorer la qualité de vie des Canadiens et des générations à venir en étudiant, en mesurant et en diffusant les effets des politiques gouvernementales, de l'entrepreneuriat et des choix sur leur bien-être.

Peer review—validating the accuracy of our research

The Fraser Institute maintains a rigorous peer review process for its research. New research, major research projects, and substantively modified research conducted by the Fraser Institute are reviewed by experts with a recognized expertise in the topic area being addressed. Whenever possible, external review is a blind process. Updates to previously reviewed research or new editions of previously reviewed research are not reviewed unless the update includes substantive or material changes in the methodology.

The review process is overseen by the directors of the Institute's research departments who are responsible for ensuring all research published by the Institute passes through the appropriate peer review. If a dispute about the recommendations of the reviewers should arise during the Institute's peer review process, the Institute has an Editorial Advisory Board, a panel of scholars from Canada, the United States, and Europe to whom it can turn for help in resolving the dispute.

Editorial Advisory Board

Members

Prof. Terry L. Anderson	Prof. Herbert G. Grubel
Prof. Robert Barro	Prof. James Gwartney
Prof. Jean-Pierre Centi	Prof. Ronald W. Jones
Prof. John Chant	Dr. Jerry Jordan
Prof. Bev Dahlby	Prof. Ross McKittrick
Prof. Erwin Diewert	Prof. Michael Parkin
Prof. Stephen Easton	Prof. Friedrich Schneider
Prof. J.C. Herbert Emery	Prof. Lawrence B. Smith
Prof. Jack L. Granatstein	Dr. Vito Tanzi

Past members

Prof. Armen Alchian*	Prof. F.G. Pennance*
Prof. Michael Bliss	Prof. George Stigler*†
Prof. James M. Buchanan*†	Sir Alan Walters*
Prof. Friedrich A. Hayek*†	Prof. Edwin G. West*
Prof. H.G. Johnson*	

* deceased; † Nobel Laureate