

Fraser Institute Annual

SURVEY OF MINING COMPANIES 2020

FRASER
INSTITUTE

Jairo Yunis and Elmira Aliakbari



Table of Contents

Survey information	iv
Executive Summary—2020 Mining Survey	1
Survey Methodology	3
Summary Indexes	8
Global Survey Rankings	20
Global Results	22
Overview	40
Permit Times for Mining Exploration 2020	43
Explanation of the figures	57
Acknowledgments	73
About the Authors	74
Publishing Information	75
Supporting the Fraser Institute	76
Purpose, Funding, and Independence	76
About the Fraser Institute	77
Editorial Advisory Board	78

Survey Information

The Fraser Institute Annual Survey of Mining Companies was sent to approximately 2,200 explorations, development, and other mining-related companies around the world. The survey was conducted from August 6th to November 6th, 2020. The companies that participated in the survey reported exploration spending of US\$1.51 billion in 2020 and US\$1.53 billion in 2019. The 2020 results from the *Permit Times for Mining Exploration* publication are included in this year's survey.

2020 Mining Survey—Executive Summary

This report presents the results of the Fraser Institute’s 2020 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 2,200 individuals between August 6th to November 6th, 2020. 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 276 responses for the survey, providing sufficient data to evaluate 77 jurisdictions. By way of comparison, 76 jurisdictions were evaluated in 2019, 83 in 2018, 91 in 2017, and 104 in 2016. 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 Nevada, which moved up from 3rd place in 2019. Arizona, which ranked 9th in 2019, moved into 2nd place this year. Saskatchewan climbed eight spots from 11th in 2019 to 3rd in 2020. Western Australia

ranked 4th this year after topping the ranking last year, and Alaska dropped a spot from 4th in 2019 to 5th in 2020. Rounding out the top 10 are Quebec, South Australia, Newfoundland & Labrador, Idaho, and Finland.

The bottom

When considering both policy and mineral potential in the Investment Attractiveness Index, Venezuela ranks as the least attractive jurisdiction in the world for investment followed by Argentina: Chubut, and Tanzania. Also, in the bottom 10 (beginning with the worst) are Indonesia, Argentina: La Rioja, Bolivia, Argentina: Mendoza, Zimbabwe, Spain, and Michigan.

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 77 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

Idaho displaced Finland from the top spot this year with the highest PPI score of 100. Idaho was followed by Wyoming in the second place, which moved from 16th in the previous year. Along with Idaho and Wyoming the top 10 ranked jurisdictions are Finland, the Republic of Ireland, Nevada, Utah, Arizona, Newfoundland & Labrador, Saskatchewan, and New Mexico.

The bottom

The 10 least attractive jurisdictions for investment based on the PPI rankings (starting with the worst) are Venezuela, Argentina: Chubut, Zimbabwe, Bolivia, Argentina: Mendoza, Tanzania, Papua New Guinea, the Democratic Republic of Congo (DRC), Indonesia, 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 77 jurisdictions from all continents except Antarctica and Asia. The 2020 questionnaire included a number of jurisdictions that had insufficient responses to enable them to be included in the report. The minimum threshold for inclusion this year was five responses. Jurisdictions with between 5 and 9 responses were included but have been noted accordingly. Any jurisdiction with fewer than 5 responses was dropped. This year’s dropped jurisdictions include Afghanistan, Albania, Angola, Argentina: Neuquen, Armenia, Belarus, Bulgaria, Burundi, Cambodia, Central African Republic, China, Cyprus, Egypt, Eritrea, Estonia, Ethiopia, Fiji, France, French Guiana, Gabon, Greece, Guatemala, Honduras, Hungary, India, Iraq, Israel, Ivory Coast, Jordan, Kazakhstan,

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.

Kenya, Kyrgyzstan, Laos, Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mongolia, Morocco, Myanmar, New Caledonia, Nicaragua, Niger, Nigeria, Oman, Pakistan, Panama, Philippines, Poland, Republic of the Congo (Brazzaville), Romania, Saudi Arabia, Senegal, Serbia, Sierra Leone, Slovakia, Solomon Islands, South Dakota, South Korea, South Sudan, Sudan, Suriname, 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 2020 survey was distributed to approximately 2,200 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 6th to November 6th, 2020. We received a total of 276 responses from individuals, of whom 245 completed the full survey and 31 completed part of the survey. As figure 1 illustrates, well over half of the respondents (57 percent) are either the company

Figure 1: The Position Survey Respondents Hold in Their Company, 2020

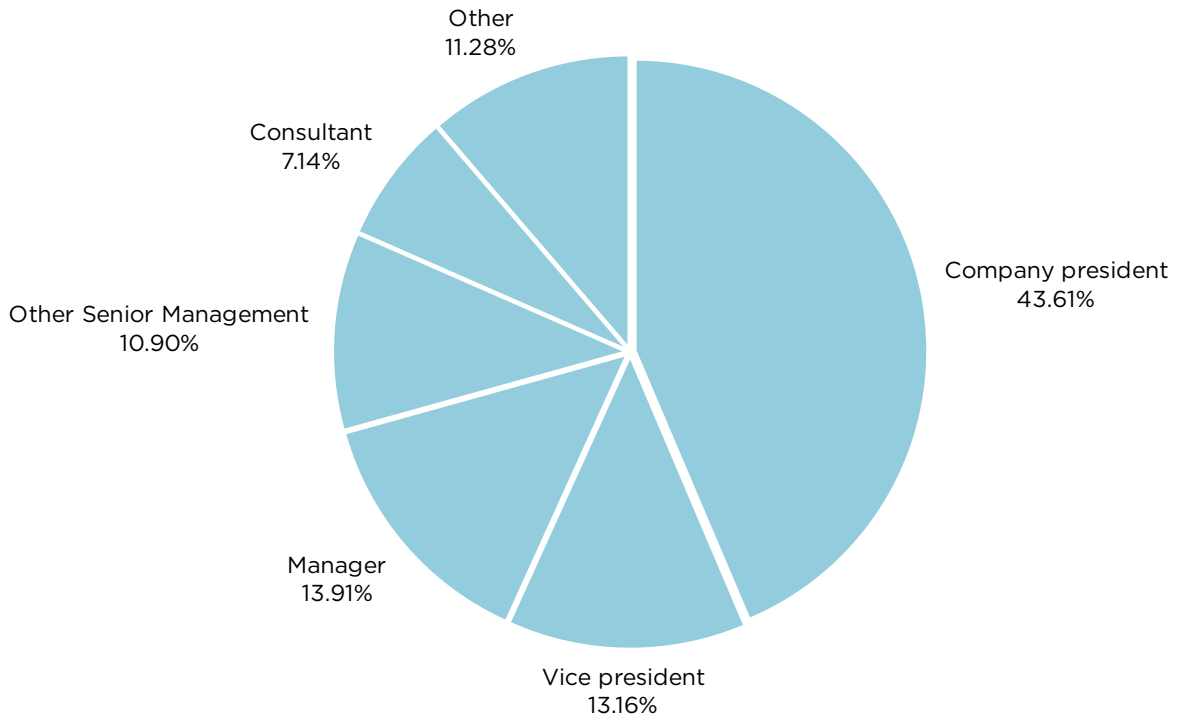
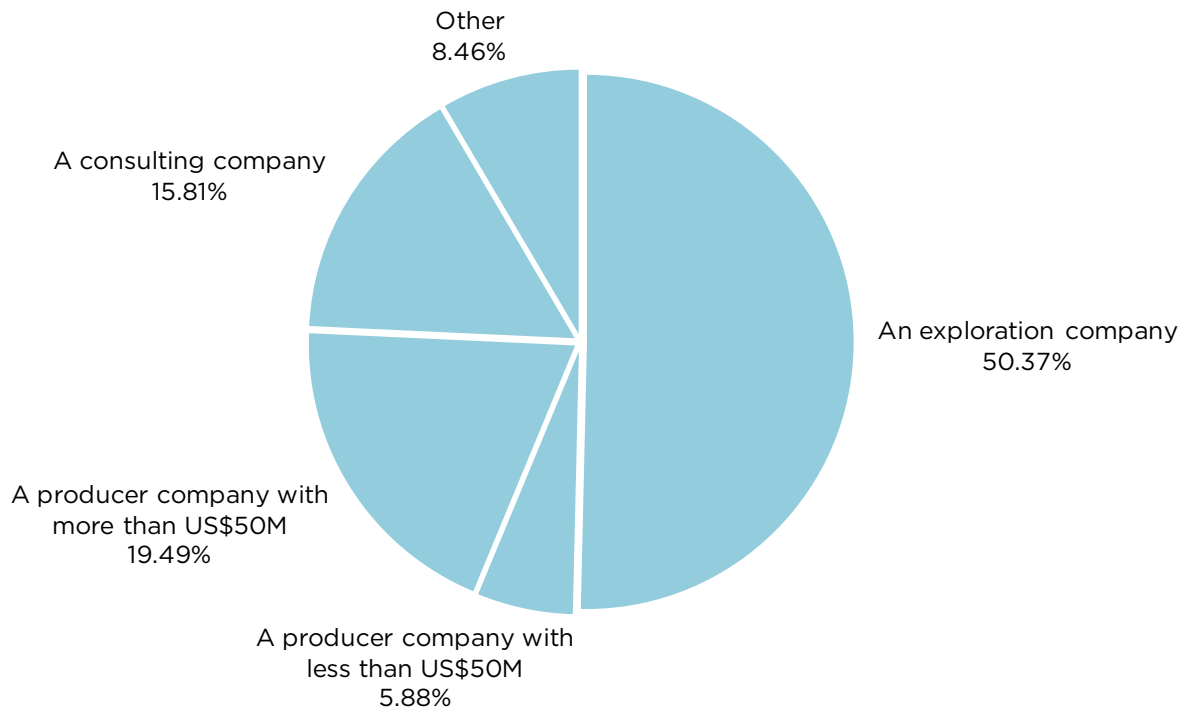


Figure 2: Company Focus as Indicated by Respondents, 2020



president or vice-president, and 25 percent are either managers or senior managers. The companies that participated in the survey reported exploration spending of US\$1.51 billion in 2020 and US\$1.53 billion in 2019.

Figure 2 shows that half of the 2020 survey respondents represent an exploration company. Twenty-five percent of the respondents represent producer companies, and the final 25 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.

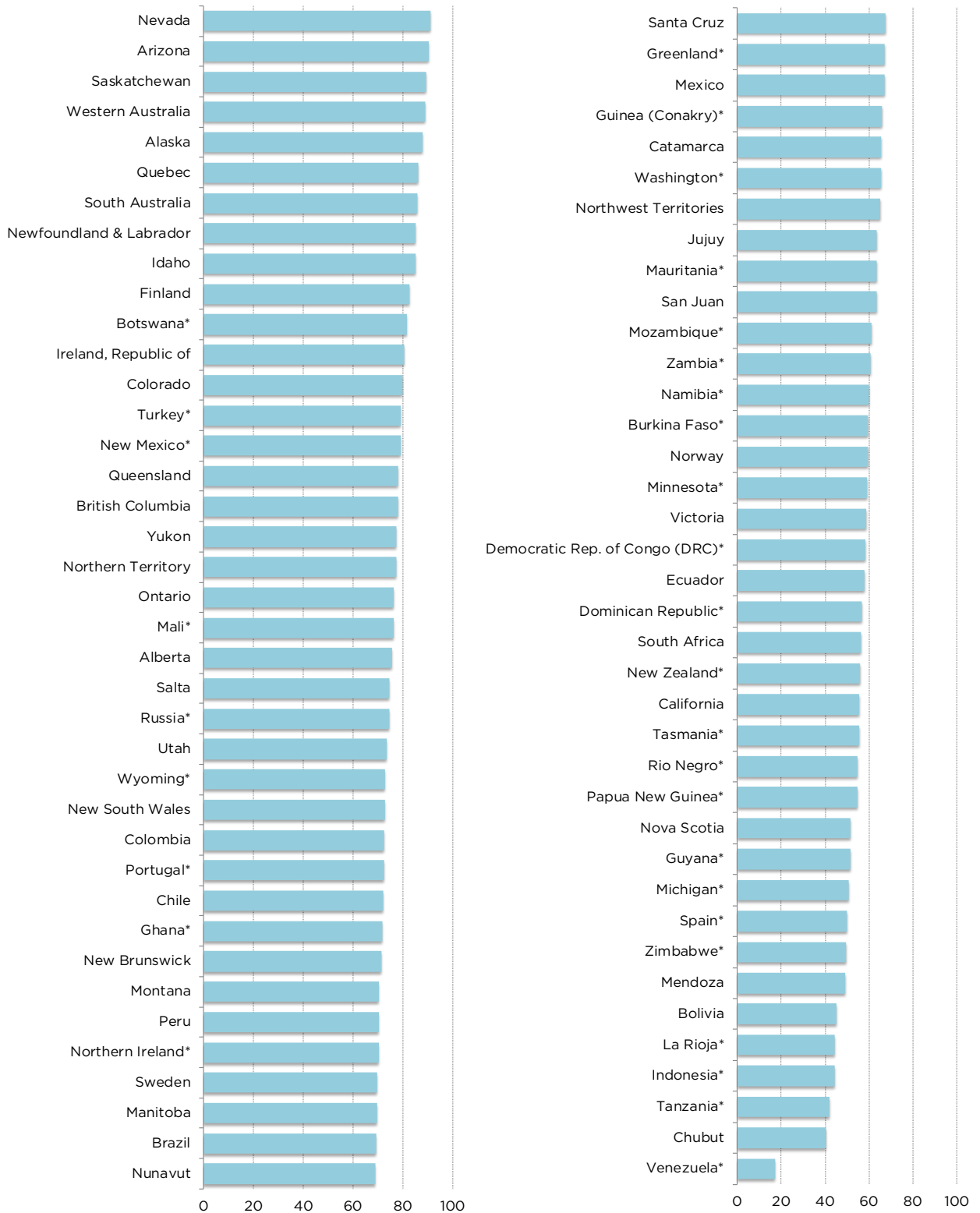
This year, as in other years, the index was weighted 40 percent by policy and 60 percent by mineral potential. These ratios are determined from a survey question that asks respondents to rate the relative importance of each factor. In most years, the split is nearly exactly 60 percent mineral and 40 percent policy. This year, the answer was 57.25 percent mineral potential and 42.75 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				
		2020	2019	2018	2017	2016	2020	2019	2018	2017	2016
Canada	Alberta	75.47	71.11	62.12	61.77	68.55	22/77	30/76	51/83	49/91	47/104
	British Columbia	77.94	77.47	78.09	74.01	74.15	17/77	19/76	18/83	20/91	27/104
	Manitoba	69.61	68.01	81.78	74.50	89.05	37/77	34/76	12/83	18/91	2/104
	New Brunswick*	71.42	53.65	73.42	68.87	69.45	32/77	60/76	30/83	30/91	40/104
	Newfoundland & Labrador	85.17	71.73	82.14	80.58	78.94	8/77	28/76	11/83	11/91	16/104
	Northwest Territories	65.10	67.93	82.46	73.20	75.77	46/77	35/76	10/83	21/91	21/104
	Nova Scotia*	51.56	61.01	59.38	60.41	66.80	66/77	52/76	57/83	56/91	52/104
	Nunavut	68.93	73.24	80.59	70.58	72.52	39/77	26/76	15/83	26/91	31/104
	Ontario	76.43	79.29	78.07	82.15	78.65	20/77	16/76	20/83	7/91	18/104
	Quebec	85.97	77.49	88.38	83.08	85.02	6/77	18/76	4/83	6/91	6/104
	Saskatchewan	89.38	81.75	90.00	87.18	89.91	3/77	11/76	3/83	2/91	1/104
Yukon	77.30	75.56	83.35	79.67	79.61	18/77	23/76	9/83	13/91	15/104	
United States	Alaska	88.06	84.17	86.08	80.74	80.27	5/77	4/76	5/83	10/91	14/104
	Arizona	90.45	82.43	83.94	81.11	84.91	2/77	9/76	8/83	9/91	7/104
	California	55.47	46.44	56.59	56.84	67.81	62/77	63/76	61/83	62/91	49/104
	Colorado	79.82	68.46	69.28	71.38	68.85	13/77	32/76	35/83	23/91	46/104
	Idaho	85.00	82.78	79.89	70.12	81.34	9/77	8/76	16/83	28/91	12/104
	Michigan*	50.91	**	70.70	75.67	74.38	68/77	**	33/83	17/91	25/104
	Minnesota*	59.29	61.52	70.41	68.89	74.18	55/77	50/76	34/83	29/91	26/104
	Montana	70.51	61.87	72.50	65.90	71.16	33/77	49/76	31/83	38/91	35/104
	Nevada	91.05	87.54	92.99	85.45	87.48	1/77	3/76	1/83	3/91	4/104
	New Mexico*	79.24	54.89	73.98	66.38	75.03	15/77	59/76	28/83	37/91	24/104
	Utah	73.41	80.51	84.29	78.19	81.39	25/77	14/76	7/83	15/91	11/104
	Washington*	65.37	51.55	52.93	49.88	48.58	45/77	61/76	71/83	76/91	84/104
Wyoming*	72.82	71.41	74.45	58.35	75.26	26/77	29/76	26/83	60/91	23/104	
Australia	New South Wales	72.64	62.78	65.56	62.31	61.84	27/77	47/76	42/83	46/91	62/104
	Northern Territory	77.27	81.43	75.93	70.47	77.61	19/77	13/76	23/83	27/91	20/104
	Queensland	78.00	79.33	81.67	80.53	81.40	16/77	15/76	13/83	12/91	10/104
	South Australia	85.64	83.31	75.46	79.30	81.03	7/77	6/76	24/83	14/91	13/104
	Tasmania*	55.46	75.70	60.31	61.69	64.27	63/77	22/76	55/83	50/91	56/104
	Victoria	58.82	64.27	60.74	51.82	63.96	56/77	43/76	54/83	71/91	57/104
	Western Australia	88.82	92.45	91.47	83.56	88.88	4/77	1/76	2/83	5/91	3/104
Oceania	Indonesia*	44.32	73.09	63.10	66.84	50.16	74/77	27/76	47/83	35/91	78/104
	New Zealand	56.12	64.59	66.47	60.51	57.47	61/77	42/76	40/83	55/91	67/104
	Papua New Guinea*	54.67	58.84	66.32	63.91	63.48	65/77	54/76	41/83	40/91	59/104
Africa	Botswana*	81.48	63.39	71.66	63.14	77.62	11/77	45/76	32/83	43/91	19/104
	Burkina Faso*	59.68	61.19	**	52.64	68.18	53/77	51/76	**	68/91	48/104
	Democratic Republic of Congo (DRC)*	58.12	39.20	54.92	61.51	72.80	57/77	69/76	67/83	51/91	29/104
	Ghana*	71.85	**	54.91	72.13	75.56	31/77	**	68/83	22/91	22/104
	Guinea (Conakry)*	65.92	76.64	**	**	**	43/77	20/76	**	**	**

Table 1 (continued)

		Score					Rank				
		2020	2019	2018	2017	2016	2020	2019	2018	2017	2016
	Mali*	76.27	39.53	62.18	70.74	69.32	21/77	68/76	50/83	25/91	42/104
	Mauritania*	63.39	**	**	**	**	48/77	**	**	**	**
	Mozambique*	61.24	**	**	30.78	41.87	50/77	**	**	87/91	95/104
	Namibia*	59.72	58.22	56.66	60.67	66.11	52/77	55/76	60/83	54/91	53/104
	South Africa	56.33	64.79	65.30	62.06	53.62	60/77	40/76	43/83	48/91	74/104
	Tanzania*	42.08	32.82	55.04	46.79	60.45	75/77	76/76	66/83	79/91	64/104
	Zambia*	60.83	37.90	63.60	59.34	72.78	51/77	71/76	45/83	58/91	30/104
	Zimbabwe*	49.52	44.81	56.57	54.32	41.84	70/77	64/76	62/83	66/91	96/104
Argentina	Catamarca	65.49	63.93	68.39	53.91	50.38	44/77	44/76	37/83	67/91	77/104
	Chubut	40.58	33.13	54.83	30.54	31.47	76/77	75/76	69/83	88/91	101/104
	Jujuy	63.55	51.21	52.61	58.57	24.83	47/77	62/76	72/83	59/91	104/104
	La Rioja*	44.44	34.48	48.70	46.06	33.94	73/77	74/76	75/83	80/91	99/104
	Mendoza	48.98	44.46	50.15	29.29	35.51	71/77	66/76	73/83	89/91	98/104
	Rio Negro*	54.79	44.76	**	**	**	64/77	65/76	**	**	**
	Salta	74.69	67.19	54.09	62.51	69.25	23/77	36/76	70/83	45/91	43/104
	San Juan	63.35	76.20	55.90	63.21	63.69	49/77	21/76	64/83	42/91	58/104
	Santa Cruz	67.39	60.49	62.46	60.98	54.80	40/77	53/76	49/83	52/91	72/104
Latin America and the Caribbean Basin	Bolivia	45.16	62.36	49.53	33.68	48.74	72/77	48/76	74/83	86/91	83/104
	Brazil	69.29	63.36	58.63	55.12	62.51	38/77	46/76	58/83	65/91	61/104
	Chile	72.11	77.72	84.90	81.51	69.66	30/77	17/76	6/83	8/91	39/104
	Colombia	72.29	57.99	62.58	56.10	59.52	28/77	56/76	48/83	64/91	65/104
	Dominican Republic*	56.54	35.85	45.77	51.33	42.82	59/77	72/76	76/83	72/91	92/104
	Ecuador	57.95	56.80	59.79	52.09	50.38	58/77	57/76	56/83	70/91	76/104
	Guyana*	51.54	65.17	67.27	50.42	68.97	67/77	39/76	39/83	74/91	45/104
	Mexico	66.87	65.43	73.91	63.03	67.06	42/77	38/76	29/83	44/91	50/104
	Peru	70.41	75.14	81.55	74.26	73.47	34/77	24/76	14/83	19/91	28/104
	Venezuela*	17.14	38.18	27.69	36.43	27.86	77/77	70/76	83/83	85/91	102/104
Europe	Finland	82.75	92.00	79.04	89.04	85.56	10/77	2/76	17/83	1/91	5/104
	Greenland*	66.91	64.68	55.93	66.97	64.63	41/77	41/76	63/83	34/91	55/104
	Ireland, Republic of	80.40	83.22	78.07	84.40	83.13	12/77	7/76	19/83	4/91	9/104
	Northern Ireland*	70.23	**	75.28	62.29	72.41	35/77	**	25/83	47/91	32/104
	Norway	59.65	70.26	61.65	63.24	70.59	54/77	31/76	53/83	41/91	37/104
	Portugal*	72.26	83.92	63.12	67.80	70.86	29/77	5/76	46/83	32/91	36/104
	Russia*	74.53	**	74.23	67.51	69.02	24/77	**	27/83	33/91	44/104
	Spain*	49.76	**	64.99	66.69	70.39	69/77	**	44/83	36/91	38/104
	Sweden	69.66	82.00	77.89	76.88	84.26	36/77	10/76	21/83	16/91	8/104
	Turkey*	79.27	81.60	56.72	52.60	60.67	14/77	12/76	59/83	69/91	63/104

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.

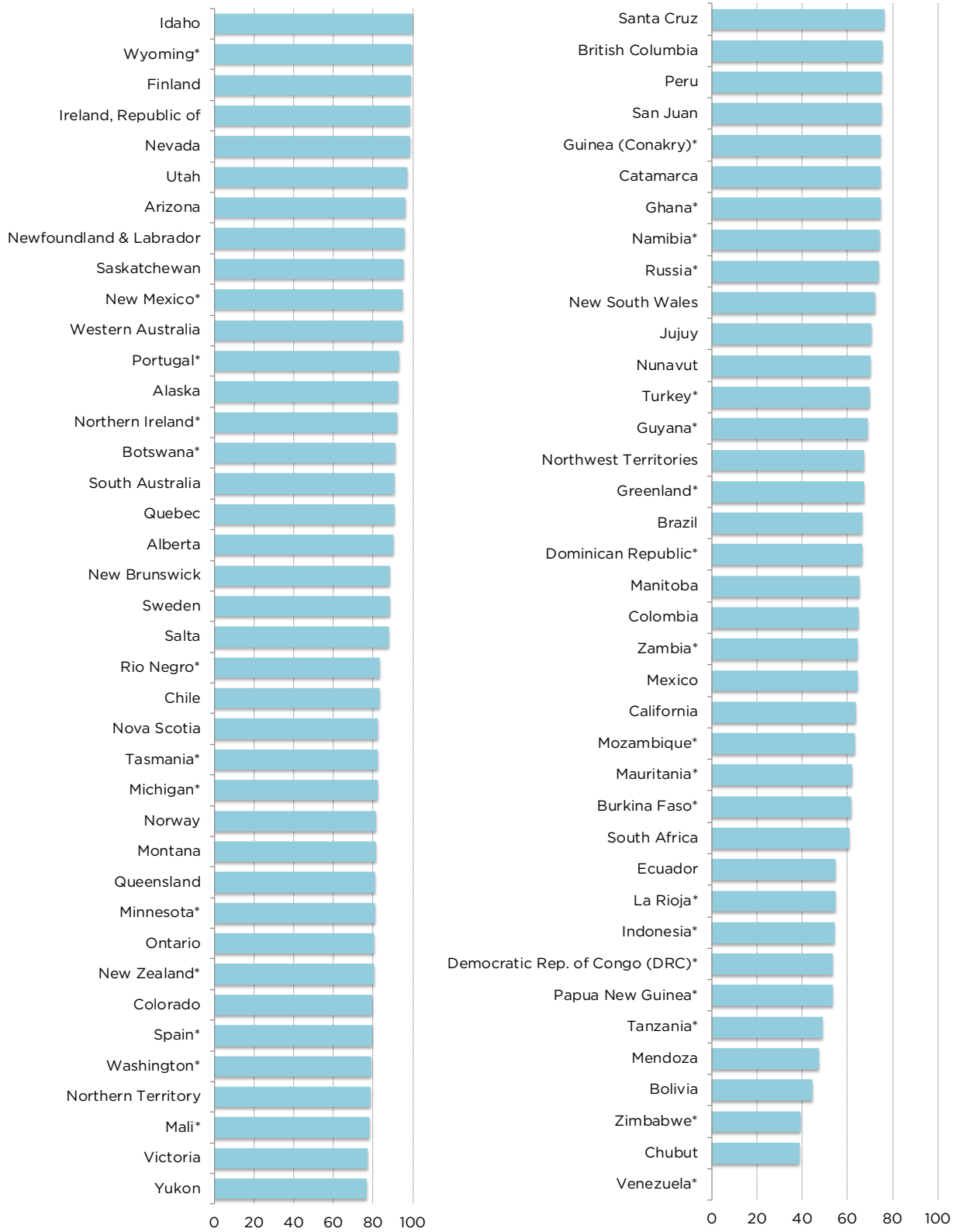
The Policy Perception Index is a composite index that captures the opinions of managers and executives on the effects of policies in jurisdictions with which they are familiar. All survey policy questions (i.e., uncertainty concerning the administration, interpretation, and enforcement of existing regulations; 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				
		2020	2019	2018	2017	2016	2020	2019	2018	2017	2016
Canada	Alberta	90.24	92.05	94.37	84.42	83.89	18/77	6/76	14/83	16/91	28/104
	British Columbia	75.36	71.80	75.98	73.80	76.57	41/77	36/76	44/83	36/91	41/104
	Manitoba	65.40	61.42	83.29	78.76	96.62	58/77	53/76	33/83	27/91	6/104
	New Brunswick*	88.55	87.24	96.04	86.47	94.21	19/77	13/76	9/83	13/91	8/104
	Newfoundland & Labrador	95.93	90.69	92.85	87.46	89.01	8/77	8/76	18/83	10/91	18/104
	Northwest Territories	67.55	63.24	77.16	69.37	72.77	54/77	50/76	42/83	42/91	48/104
	Nova Scotia*	82.48	85.87	94.89	82.28	91.99	24/77	18/76	11/83	24/91	11/104
	Nunavut	70.33	67.19	74.55	67.58	68.80	51/77	44/76	45/83	44/91	58/104
	Ontario	80.70	82.46	84.87	82.96	84.69	31/77	24/76	30/83	20/91	26/104
	Quebec	90.50	83.57	95.11	87.47	89.82	17/77	21/76	10/83	9/91	17/104
	Saskatchewan	95.24	90.25	100.00	91.81	98.87	9/77	9/76	1/83	3/91	2/104
Yukon	76.80	76.40	86.87	82.69	84.81	39/77	32/76	24/83	22/91	25/104	
United States	Alaska	92.65	86.52	85.48	76.85	85.42	13/77	17/76	26/83	29/91	23/104
	Arizona	96.33	89.83	91.67	85.28	90.64	7/77	10/76	19/83	14/91	14/104
	California	63.67	62.52	69.60	59.61	57.04	62/77	52/76	49/83	61/91	74/104
	Colorado	79.56	81.16	85.16	74.87	73.02	33/77	25/76	29/83	35/91	47/104
	Idaho	100.00	91.57	94.72	84.52	90.86	1/77	7/76	13/83	15/91	13/104
	Michigan*	82.26	**	90.20	89.18	90.49	26/77	**	21/83	7/91	15/104
	Minnesota*	80.71	69.43	90.31	76.77	78.31	30/77	40/76	20/83	30/91	37/104
	Montana	81.27	72.87	81.24	66.06	71.16	28/77	34/76	35/83	47/91	52/104
	Nevada	98.64	95.00	99.31	90.50	97.64	5/77	3/76	2/83	5/91	5/104
	New Mexico*	94.97	82.68	93.87	82.61	81.89	10/77	23/76	15/83	23/91	30/104
	Utah	97.00	94.14	96.25	86.73	88.09	6/77	4/76	8/83	12/91	20/104
	Washington*	79.05	70.54	77.77	69.71	63.13	35/77	37/76	40/83	41/91	67/104
Wyoming*	99.54	86.85	93.83	87.55	94.40	2/77	16/76	16/83	8/91	7/104	
Australia	New South Wales	72.13	66.96	71.60	63.21	63.91	49/77	46/76	47/83	53/91	66/104
	Northern Territory	78.48	77.26	77.32	75.31	85.70	36/77	30/76	41/83	33/91	22/104
	Queensland	81.12	76.91	84.64	75.78	78.50	29/77	31/76	31/83	31/91	36/104
	South Australia	90.88	85.55	89.65	80.39	87.05	16/77	19/76	22/83	26/91	21/104
	Tasmania*	82.40	73.33	84.11	75.65	81.51	25/77	33/76	32/83	32/91	32/104
	Victoria	77.40	67.81	76.85	63.93	73.80	38/77	43/76	43/83	52/91	42/104
	Western Australia	94.77	93.99	96.68	83.51	93.20	11/77	5/76	5/83	17/91	9/104
Oceania	Indonesia*	54.54	47.74	54.64	39.92	29.93	69/77	64/76	70/83	84/91	99/104
	New Zealand	80.29	72.83	85.40	64.43	77.51	32/77	35/76	27/83	50/91	39/104
	Papua New Guinea*	53.35	49.60	60.81	47.27	47.99	71/77	63/76	61/83	77/91	83/104
Africa	Botswana*	91.20	83.48	94.77	82.84	91.79	15/77	22/76	12/83	21/91	12/104
	Burkina Faso*	61.70	55.48	**	62.84	72.37	65/77	60/76	**	55/91	51/104
	Democratic Republic of Congo (DRC)*	53.64	38.00	34.18	35.03	60.58	70/77	70/76	82/83	87/91	70/104
	Ghana*	74.62	**	62.27	64.42	81.76	46/77	**	60/83	51/91	31/104
	Guinea (Conakry)*	74.81	41.60	**	**	**	44/77	68/76	**	**	**

Table 2 continued

		Score					Rank				
		2020	2019	2018	2017	2016	2020	2019	2018	2017	2016
	Mali*	78.18	45.27	60.00	66.86	65.48	37/77	65/76	63/83	46/91	61/104
	Mauritania*	62.03	**	**	**	**	64/77	**	**	**	**
	Mozambique*	63.11	**	**	51.96	59.66	63/77	**	**	74/91	72/104
	Namibia*	74.30	87.22	80.71	71.11	77.77	47/77	14/76	36/83	39/91	38/104
	South Africa	60.81	59.71	64.57	42.66	47.50	66/77	56/76	56/83	81/91	84/104
	Tanzania*	48.94	28.47	56.83	45.11	66.13	72/77	74/76	66/83	78/91	59/104
	Zambia*	64.56	38.50	65.25	53.34	73.61	60/77	69/76	53/83	71/91	43/104
	Zimbabwe*	39.42	26.31	47.68	29.54	18.06	75/77	75/76	76/83	89/91	102/104
Argentina	Catamarca	74.67	68.17	79.31	70.50	59.28	45/77	41/76	38/83	40/91	73/104
	Chubut	38.94	30.89	37.07	26.34	31.79	76/77	73/76	80/83	90/91	98/104
	Jujuy	70.63	57.44	56.53	54.75	37.07	50/77	59/76	67/83	69/91	93/104
	La Rioja*	54.84	42.44	46.76	52.66	37.96	68/77	67/76	77/83	73/91	92/104
	Mendoza	47.45	36.14	50.37	43.22	34.23	73/77	72/76	73/83	80/91	96/104
	Rio Negro*	83.40	70.23	**	**	**	22/77	38/76	**	**	**
	Salta	87.87	77.97	67.72	71.89	83.13	21/77	29/76	51/83	38/91	29/104
	San Juan	75.04	80.21	64.76	66.96	73.50	43/77	27/76	55/83	45/91	46/104
	Santa Cruz	76.17	63.73	65.09	61.38	62.00	40/77	49/76	54/83	58/91	69/104
Latin America and the Caribbean Basin	Bolivia	44.73	37.15	48.81	40.45	42.16	74/77	71/76	75/83	83/91	87/104
	Brazil	66.65	69.75	64.43	55.66	64.97	56/77	39/76	57/83	66/91	64/104
	Chile	83.06	86.86	88.61	80.55	78.68	23/77	15/76	23/83	25/91	35/104
	Colombia	64.83	58.73	58.96	44.80	45.68	59/77	57/76	65/83	79/91	86/104
	Dominican Republic*	66.35	57.48	64.42	61.66	62.04	57/77	58/76	58/83	57/91	68/104
	Ecuador	54.87	49.69	51.64	42.18	34.28	67/77	62/76	72/83	82/91	95/104
	Guyana*	68.84	59.80	68.18	61.76	72.44	53/77	55/76	50/83	56/91	50/104
	Mexico	64.41	62.72	71.32	65.13	69.97	61/77	51/76	48/83	49/91	53/104
	Peru	75.16	67.02	79.66	68.99	69.54	42/77	45/76	37/83	43/91	54/104
	Venezuela*	0.00	0.00	0.00	0.00	0.00	77/77	76/76	83/83	91/91	104/104
Europe	Finland	99.07	100.00	99.16	98.84	97.64	3/77	1/76	3/83	2/91	4/104
	Greenland*	67.27	64.20	55.46	63.07	65.14	55/77	48/76	69/83	54/91	63/104
	Ireland, Republic of	98.72	95.54	97.68	100.00	100.00	4/77	2/76	4/83	1/91	1/104
	Northern Ireland*	92.24	**	96.55	89.56	92.97	14/77	**	6/83	6/91	10/104
	Norway	81.61	84.00	85.38	77.75	88.98	27/77	20/76	28/83	28/91	19/104
	Portugal*	93.16	89.81	93.50	87.01	90.30	12/77	11/76	17/83	11/91	16/104
	Russia*	73.83	**	67.71	60.44	64.22	48/77	**	52/83	60/91	65/104
	Spain*	79.40	**	79.13	83.39	85.18	34/77	**	39/83	18/91	24/104
	Sweden	88.42	89.62	96.28	91.11	98.15	20/77	12/76	7/83	4/91	3/104
	Turkey*	69.60	78.99	59.98	52.74	54.61	52/77	28/76	64/83	72/91	78/104

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.

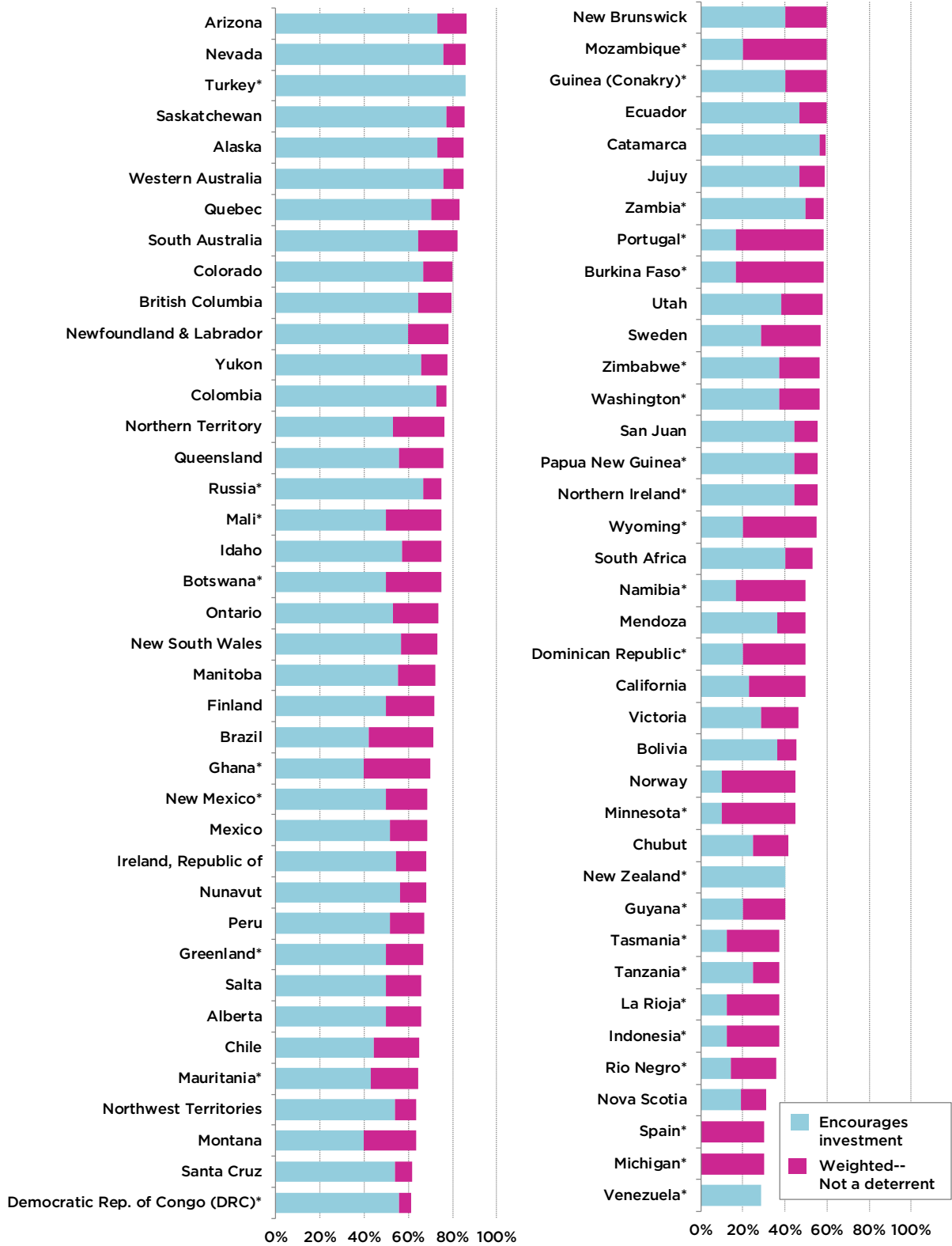
The “Best Practices Mineral Potential” index ranks the jurisdictions based on which region’s geology “encourages exploration investment” or is “not a deterrent to investment.” Since the “Encourages” response expresses a much more positive attitude to investment than “Not a Deterrent,” in calculating 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” (77 percent) with the 16 percent who responded “Not a Deterrent to Investment,” which was half weighted at 8 percent. Thus, in the 2020 survey Saskatchewan has a score of 85, 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				
		2020	2019	2018	2017	2016	2020	2019	2018	2017	2016
Canada	Alberta	65.63	57.14	40.63	46.67	58.33	33/77	54/76	74/83	69/91	61/104
	British Columbia	79.66	81.25	79.49	74.16	72.53	10/77	10/76	13/83	22/91	24/104
	Manitoba	72.41	72.41	80.77	71.67	84.00	22/77	26/76	11/83	28/91	2/104
	New Brunswick*	60.00	31.25	58.33	57.14	52.94	42/77	72/76	49/83	52/91	74/104
	Newfoundland & Labrador	78.00	59.09	75.00	76.00	72.22	11/77	50/76	18/83	18/91	25/104
	Northwest Territories	63.46	71.05	86.00	75.76	77.78	36/77	29/76	4/83	19/91	11/104
	Nova Scotia*	30.95	44.44	35.71	45.83	50.00	74/77	61/76	79/83	70/91	76/104
	Nunavut	68.00	77.27	84.62	72.58	75.00	29/77	16/76	5/83	25/91	18/104
	Ontario	73.58	77.17	73.53	81.62	74.62	20/77	18/76	20/83	9/91	22/104
	Quebec	82.95	73.44	83.90	80.16	81.82	7/77	25/76	6/83	10/91	5/104
	Saskatchewan	85.48	76.09	83.33	84.09	83.93	4/77	21/76	7/83	2/91	3/104
	Yukon	77.63	75.00	81.00	77.66	76.14	12/77	22/76	10/83	16/91	16/104
United States	Alaska	85.00	82.61	86.49	83.33	76.83	5/77	7/76	3/83	5/91	15/104
	Arizona	86.54	77.50	78.79	78.33	81.08	1/77	15/76	14/83	13/91	6/104
	California	50.00	35.71	47.92	55.00	75.00	58/77	69/76	67/83	57/91	19/104
	Colorado	80.00	60.00	58.70	69.05	66.07	9/77	45/76	48/83	31/91	41/104
	Idaho	75.00	76.92	70.00	60.53	75.00	17/77	19/76	21/83	46/91	20/104
	Michigan*	30.00	**	57.69	66.67	63.64	75/77	**	51/83	34/91	47/104
	Minnesota*	45.00	56.25	57.14	63.64	71.43	64/77	55/76	52/83	37/91	31/104
	Montana	63.33	54.55	66.67	65.79	71.15	37/77	56/76	28/83	35/91	34/104
	Nevada	86.00	82.56	88.78	82.08	80.70	2/77	8/76	1/83	8/91	8/104
	New Mexico*	68.75	36.36	60.71	55.56	70.45	26/77	67/76	45/83	55/91	35/104
	Utah	57.69	71.43	76.32	72.50	76.92	49/77	28/76	16/83	26/91	14/104
	Washington*	56.25	38.89	36.36	36.67	38.89	51/77	65/76	78/83	82/91	93/104
	Wyoming*	55.00	61.11	61.54	38.89	62.50	56/77	43/76	42/83	81/91	51/104
Australia	New South Wales	72.97	60.00	61.54	61.70	60.47	21/77	47/76	41/83	40/91	56/104
	Northern Territory	76.47	84.21	75.00	67.24	72.22	14/77	5/76	19/83	33/91	26/104
	Queensland	75.93	80.95	79.69	83.70	83.33	15/77	11/76	12/83	3/91	4/104
	South Australia	82.14	81.82	66.00	78.57	77.03	8/77	9/76	29/83	12/91	13/104
	Tasmania*	37.50	77.27	44.44	52.38	52.78	72/77	17/76	71/83	63/91	75/104
	Victoria	46.43	61.90	50.00	43.75	57.41	62/77	40/76	66/83	77/91	68/104
	Western Australia	84.85	91.43	88.00	83.59	86.00	6/77	2/76	2/83	4/91	1/104
Oceania	Indonesia*	37.50	90.00	68.75	84.78	63.64	69/77	3/76	25/83	1/91	48/104
	New Zealand	40.00	59.09	53.85	57.89	44.12	68/77	49/76	58/83	51/91	86/104
	Papua New Guinea*	55.56	65.00	70.00	75.00	73.81	54/77	38/76	23/83	20/91	23/104
Africa	Botswana*	75.00	50.00	56.25	50.00	68.18	16/77	59/76	53/83	64/91	38/104
	Burkina Faso*	58.33	65.00	**	45.83	65.38	46/77	37/76	**	71/91	42/104
	Democratic Republic of Congo (DRC)*	61.11	40.00	68.75	79.17	80.95	39/77	63/76	24/83	11/91	7/104
	Ghana*	70.00	**	50.00	77.27	71.43	25/77	**	61/83	17/91	33/104
	Guinea (Conakry)*	60.00	100.00	**	**	**	40/77	1/76	**	**	**

Table 3 continued

		Score					Rank				
		2020	2019	2018	2017	2016	2020	2019	2018	2017	2016
	Mali*	75.00	35.71	63.64	73.33	71.88	18/77	70/76	38/83	24/91	29/104
	Mauritania*	64.29	**	**	**	**	35/77	**	**	**	**
	Mozambique*	60.00	**	**	16.67	30.00	41/77	**	**	90/91	99/104
	Namibia*	50.00	38.89	40.63	53.70	58.33	61/77	64/76	75/83	60/91	62/104
	South Africa	53.33	68.18	65.79	75.00	57.69	57/77	34/76	30/83	21/91	66/104
	Tanzania*	37.50	35.71	53.85	47.92	56.67	71/77	68/76	59/83	68/91	71/104
	Zambia*	58.33	37.50	62.50	63.33	72.22	48/77	66/76	39/83	39/91	27/104
	Zimbabwe*	56.25	57.14	62.50	70.83	57.69	52/77	53/76	40/83	29/91	67/104
Argentina	Catamarca	59.38	61.11	61.11	42.86	44.44	44/77	44/76	43/83	78/91	85/104
	Chubut	41.67	34.62	66.67	33.33	31.25	66/77	71/76	26/83	85/91	97/104
	Jujuy	58.82	47.06	50.00	61.11	16.67	45/77	60/76	62/83	42/91	103/104
	La Rioja*	37.50	29.17	50.00	41.67	31.25	70/77	73/76	63/83	80/91	98/104
	Mendoza	50.00	50.00	50.00	20.00	36.36	60/77	58/76	64/83	89/91	95/104
	Rio Negro*	35.71	27.78	**	**	**	73/77	74/76	**	**	**
	Salta	65.91	60.00	45.00	56.25	60.00	32/77	46/76	70/83	54/91	59/104
	San Juan	55.56	73.53	50.00	60.71	57.14	55/77	24/76	65/83	43/91	69/104
	Santa Cruz	61.54	58.33	60.71	60.71	50.00	38/77	51/76	46/83	44/91	78/104
Latin America and the Caribbean Basin	Bolivia	45.45	79.17	50.00	29.17	53.13	63/77	14/76	60/83	87/91	73/104
	Brazil	71.05	59.09	54.76	54.76	60.87	24/77	48/76	56/83	59/91	54/104
	Chile	64.81	71.62	82.43	82.14	63.64	34/77	27/76	9/83	7/91	49/104
	Colombia	77.27	57.50	65.00	63.64	68.75	13/77	52/76	34/83	38/91	36/104
	Dominican Republic*	50.00	21.43	33.33	44.44	30.00	59/77	76/76	80/83	74/91	100/104
	Ecuador	60.00	61.54	65.22	58.70	61.11	43/77	41/76	33/83	47/91	53/104
	Guyana*	40.00	68.75	66.67	42.86	66.67	67/77	32/76	27/83	79/91	40/104
	Mexico	68.52	67.24	75.64	61.63	65.12	27/77	35/76	17/83	41/91	43/104
	Peru	67.24	80.56	82.81	77.78	76.09	30/77	12/76	8/83	14/91	17/104
	Venezuela*	28.57	63.64	46.15	60.71	46.43	77/77	39/76	68/83	45/91	83/104
Europe	Finland	71.88	86.67	65.63	82.50	77.50	23/77	4/76	31/83	6/91	12/104
	Greenland*	66.67	65.00	56.25	69.57	64.29	31/77	36/76	54/83	30/91	46/104
	Ireland, Republic of	68.18	75.00	65.00	74.00	71.88	28/77	23/76	35/83	23/91	30/104
	Northern Ireland*	55.56	**	61.11	44.12	58.70	53/77	**	44/83	76/91	60/104
	Norway	45.00	61.11	45.83	53.57	58.33	65/77	42/76	69/83	61/91	64/104
	Portugal*	58.33	80.00	42.86	55.00	57.89	47/77	13/76	72/83	58/91	65/104
	Russia*	75.00	**	78.57	72.22	72.22	19/77	**	15/83	27/91	28/104
	Spain*	30.00	**	55.56	55.56	60.53	76/77	**	55/83	56/91	55/104
	Sweden	57.14	76.92	65.63	67.39	75.00	50/77	20/76	32/83	32/91	21/104
	Turkey*	85.71	83.33	54.55	52.50	64.71	3/77	6/76	57/83	62/91	44/104

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 Nevada, which moved up from 3rd place in 2019 (see table 1). Arizona moved into 2nd place after ranking 9th in the previous year. Saskatchewan climbed eight spots from 11th in 2019 to 3rd in 2020. Western Australia's rank decreased from 1st last year to 4th this year, and Alaska dropped a spot from 4th in 2019 to 5th in 2020. Rounding out the top 10 are Quebec, South Australia, Newfoundland & Labrador, Idaho, and Finland. Three jurisdictions—Saskatchewan, Quebec, and Newfoundland & Labrador—were outside of the top 10 in 2019 and this year displaced Portugal, the Republic of Ireland, and Sweden.

Idaho had the highest PPI score of 100 this year, displacing Finland as the most attractive jurisdiction in terms of policy (see table 2). Wyoming, which ranked 16th last year, climbed fourteen spots and now ranks 2nd. Finland ranks 3rd, after leading the ranking in the previous year. Along with Idaho, Wyoming, and Finland the top 10 ranked jurisdictions based on PPI scores are the Republic of Ireland, Nevada, Utah, Arizona, Newfoundland & Labrador, Saskatchewan, and New Mexico.

All were in the top 10 last year with the exceptions of Wyoming and New Mexico, which ranked 16th and 23rd in 2019, respectively. Displaced from the top 10 this year were Alberta and Western Australia.

Finland, the Republic of Ireland, Nevada, and Saskatchewan have ranked consistently in the top 10 over the last eight 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, Venezuela ranks as the least attractive jurisdiction in the world for investment. This year, Venezuela replaced Tanzania as the least attractive jurisdiction in the world. Also, in the bottom 10 (beginning with the worst) are Argentina: Chubut, Tanzania, Indonesia, Argentina: La Rioja, Bolivia, Argentina: Mendoza, Zimbabwe, Spain, and Michigan.

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

Venezuela, Chubut, Zimbabwe, Bolivia, Mendoza, Tanzania, DRC, and La Rioja were all in the bottom 10 jurisdictions last year. Displaced from the bottom 10 in 2020 were Zambia and Guinea (Conakry).

Global Results

Canada

Canada's median PPI score decreased by 1 point this year and two Canadian jurisdictions - Newfoundland & 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 second most attractive region in the world for investment after Australia. This year, Saskatchewan (3rd), Quebec (6th), and Newfoundland & Labrador (8th) ranked in the top 10 in terms of investment attractiveness, a significant increase compared to last year when no Canadian jurisdiction featured in the top 10.

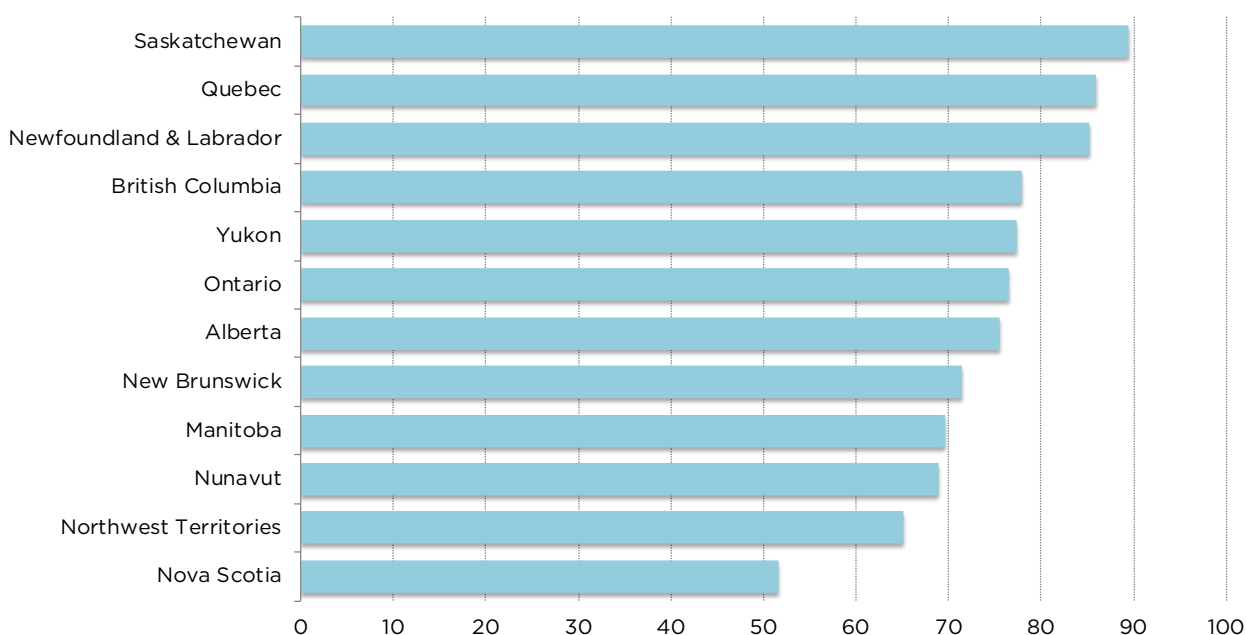
However, the improvement of Canada's overall investment attractiveness was largely driven by improvements in investors' perceptions on mineral potential (which has a weight of 60 percent on the investment attractiveness index). For example, Newfoundland & Labrador went from ranking 50th (out of 76), in terms of mineral potential, to 11th (out of 77) this year. Similar case with Saskatchewan, which ranked 21st in mineral potential in 2019, and now ranks 4th.

Focusing on policy alone (and not overall investment attractiveness), British Columbia's PPI score increased by almost 4 points this year. However, British Columbia's relative rank declined this year, coming in at an overall ranking of 41st (out of 77) after ranking 36th (out of 76) last year.⁴ This year respondents expressed increased concern over the uncertainty around protected areas (+8 points)⁵ and decreased concern over its legal system (-16 points).

Particularly, the two policy factors that continue to significantly hamper British Columbia's mining competitiveness are uncertainty concerning disputed land claims and protected areas. The sum of negative responses citing these two areas as deterrents to investment was 78 percent and 75 percent, respectively. In addition, 69 percent of respondents for British Columbia were deterred by

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 2019 to 2020 (i.e., the change in percentage points).

Figure 6: Investment Attractiveness Index—Canada

* Between 5 and 9 responses

the uncertainty concerning environmental regulations. Investor concerns related to disputed land claims and protected areas likely reflect the ongoing tensions in the province over land title issues.⁶

Alberta's PPI score decreased by almost 2 points this year and went from ranking 6th in 2019 to 18th in 2020. This year, respondents for Alberta expressed increased concern over uncertainty concerning disputed land claims (+30 points), uncertainty regarding the administration, interpretation, or enforcement of existing regulations (+21 points), and its geological database (+13 points).

Although its position in the ranking remained the same (9th), Saskatchewan saw a 5-point increase in its PPI score this year. Respondents expressed decreased concerns over the taxation regime (-24 points), regulatory duplication and inconsistencies (-16 points), and trade barriers (-14 points).

Manitoba's PPI score increased 4 points this year, but its rank dropped from 53rd in 2019 to 58th in 2020 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).

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.

In particular, uncertainty concerning disputed land claims (74 percent of respondents cited this factor as a deterrent to investment), protected areas (74 percent of respondents), and socioeconomic agreements (63 percent of respondents) are the three policy areas that continue to hinder Manitoba's PPI score.

Ontario's PPI score declined by almost 2 points this year and its rank declined from 24th in 2019 to 31st in 2020. This year, respondents expressed increased concern over uncertainty concerning environmental regulations (+17 points), socioeconomic agreements and community development conditions (+16 points), and uncertainty regarding the administration, interpretation, or enforcement of existing regulations (+13 points). In addition, miners expressed decreased concern over trade barriers (-9 points) and legal system (-4 points).

Quebec's PPI score increased by nearly 7 points this year, improving its ranking from the 21st spot (of 76) in 2019 to 17th (of 77) in 2020. This year, miners expressed decreased concern over the administration and enforcement of existing regulations (-15 points), environmental regulations (-15 points), and socioeconomic agreements and community development conditions (-13 points).

Newfoundland & Labrador saw its PPI score increase by 5 points this year, but its rank remained the same as last year's (8th). This year, miners expressed decreased concern over its taxation regime (-39 points), socioeconomic agreements and community development conditions (-26 points), and trade barriers (-17 points). Respondents expressed increased concern over the administration and enforcement of existing regulations (+7 points).

New Brunswick improved its PPI score by a little over 1 point but dropped in the ranking from 13th in 2019 to 19th in 2020. Respondents expressed decreased concern over its legal system (-24 points), regulatory duplication and inconsistencies (-20 points), and trade barriers (-15 points).

Comments: Canada

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

Alberta

Failure to consult with industry and existing mineral disposition holders about disputed land claims is a strong deterrent to investment.

—An exploration company, Company president

British Columbia

The lack of coordination between the provincial and federal processes brought by Bill C-69 scares away investment.

—An exploration company, Company vice-president

Rules around First Nation consulting are unclear and encourage delays in the permit approval process.

—An exploration company, Senior Management

Policy uncertainty and the lack of qualified staff in BC's permitting offices are a strong deterrent for exploration investment.

—An exploration company, Company president

The release of updated geological mapping is a strong encouragement for investment in the province.

—An exploration company, Company president

Manitoba

Manitoba's mineral exploration incentive program encourages investment.

—An exploration company, Company president

Extreme delays and uncertainty around the permitting process continue to be an issue.

—A consulting company, Company president

Newfoundland & Labrador

Clear rules and regulations in the permitting process.

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

Very efficient and user-friendly permitting user system and mineral claims management program.

—A consulting company, Company president

Nunavut

Lack of land use plans creates uncertainty for mineral exploration permitting.

—An exploration company, Company vice-president

Ontario

The lack of coordination and communication between government departments makes the permitting process unnecessarily extensive.

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

Relief granted for assessment reporting due to COVID-19 helped the sector remain competitive.

—An exploration company, Company president

Quebec

The province strongly supports and encourages mining exploration and investment.

—An exploration company, Company president

Saskatchewan

Flawless adherence to permit approval schedule.

—An exploration company, Company president

The new potash resource tax regime scares away investment.

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

Yukon

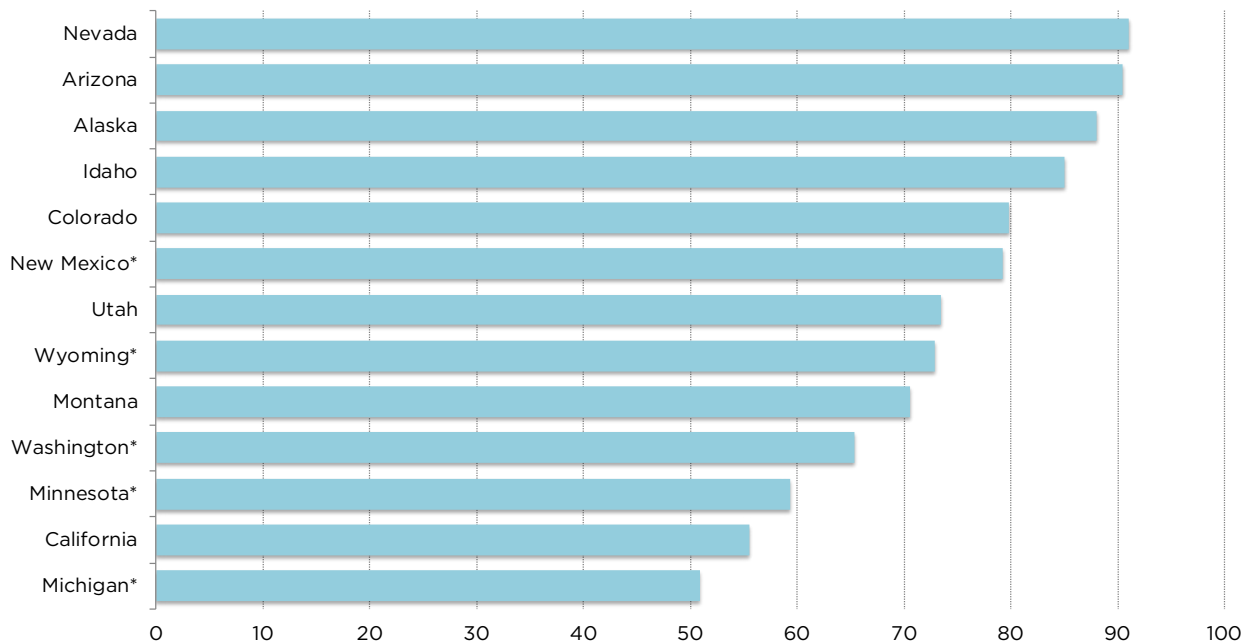
Permitting approval processes in the Yukon are a major concern for investors.

—An exploration company, Company president

The United States

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

Based on the region's median investment attractiveness score, the United States is the third most attractive region in the world for mining investment, behind Canada and Australia. The median PPI score for the United States also increased in 2020 (+8 points) and continues to be the top ranked region based on policy alone. The state with the most attractive policy environment is Idaho, which also ranked 1st in the world. This year, six US jurisdictions—Idaho (1st), Wyoming (2nd), Nevada (5th), Utah (6th), Arizona (7th), and New Mexico (10th)—ranked in the global top 10.

Figure 7: Investment Attractiveness Index—United States

* Between 5 and 9 responses

With the exception of Colorado, all US states saw improvements in their PPI scores this year. Colorado's score was similar to last year (an almost 2-point decrease), and its rank went from 25th (out of 76) to 33rd (out of 77). Respondents expressed increased concern over labour regulations and employment agreements (+24 points), uncertainty regarding the administration, interpretation, or enforcement of existing regulations (+18 points), and its taxation regime (+18 points).

Arizona saw a 6-point increase in its PPI score this year, and its ranking improved from 10th (of 76) in 2019 to 7th (out of 77) in 2020. Miners expressed decreased concern over uncertainty concerning disputed land claims (-15 points), socioeconomic agreements and community development conditions (-15 points), and its legal system (-12 points). Arizona is also the most attractive jurisdiction in the world when considering only mineral potential.

California continues to be the least attractive jurisdiction in the US based on policy alone, decreasing its position in the rankings from 52nd (of 76) in 2019 to 62nd (of 77) in 2020. This year, all respondents for California expressed concerns over the administration, interpretation, and enforcement of existing regulations and over environmental regulations. Additionally, miners expressed increased concern over the state's labour regulations and employment agreements (+21 points), the availability of labour/skills (+21 points), and its regulatory duplication and inconsistencies (+15 points).

Idaho, the most attractive jurisdiction in the world for investment when considering policy alone, increased its PPI score by 8 points. No respondents expressed concerns over the state's infrastructure, its socioeconomic agreements and community developments, its labour regulations, and security.

Wyoming had an almost 13-point increase in its PPI score this year improving its ranking considerably from 16th in 2019 to 2nd this year. Respondents expressed decreased concerns about its geological database (-23 points), the uncertainty concerning protected areas (-15 points), and its taxation regime (-15 points).

No respondents expressed concerns over Wyoming's political stability, socioeconomic agreements, or security.

Comments: United States

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

Arizona

Inconsistent practices on mineral rights are deterring investors.

—A consulting company, Company president

Idaho

Idaho has timely and efficient approval processes for drilling explorations.

—An exploration company, Company president

Montana

Montana's cyanide ban continues to deter investment.

—An exploration company, Company president

Nevada

Nevada continues to be a premier mining jurisdiction.

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

Utah

Assistance of government officials is exceptional.

— An exploration company, Other Senior Management

Australia and Oceania

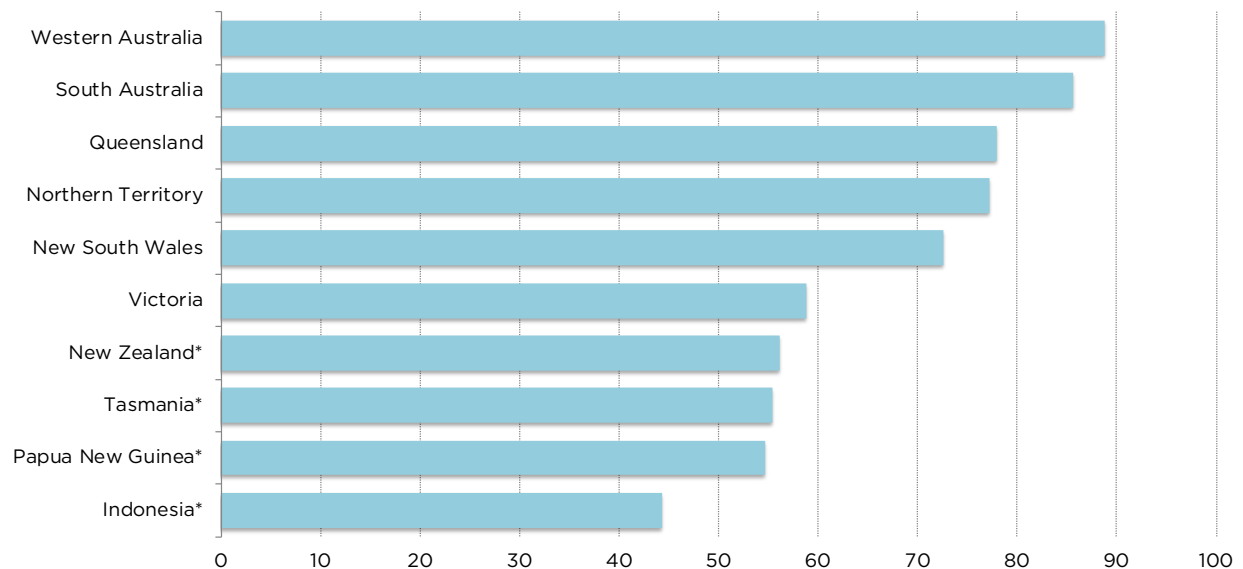
Considering both policy and mineral potential, Australia is the most attractive region in the world for mining investment. Western Australia (4th) and South Australia (7th) appeared in the global top 10 on the Investment Attractiveness Index in this year's survey.

All Australian jurisdictions saw improvements in their PPI scores this year over 2019. Victoria was the Australian jurisdiction with the highest increase in its PPI score (+10 points) since last year. When evaluating Victoria, miners expressed decreased concern about the uncertainty regarding the administration, interpretation, or enforcement of existing regulations (-33 points), environmental regulations (-27 points), and regulatory duplication and inconsistencies (-27 points).

Tasmania, which also saw a 9-point increase in its PPI score, improved its ranking by going from 33rd (out of 76) in 2019 to 25th (out of 77) in 2020. Respondents expressed decreased concerns over the uncertainty regarding the administration, interpretation, or enforcement of existing regulations (-59 points), political stability (-36 points), and regulatory duplication and inconsistencies (-30 points).

New South Wales continues to be Australia's lowest ranked jurisdiction when considering policy factors alone. New South Wales saw its PPI score increase by a little over 5 points this year, but its rank decreased from 46th (of 76) in 2019 to 49th (of 77) in 2020. This year, miners expressed increased concern over protected areas (+14 points) and decreased concern over the administration and enforcement of

Figure 8: Investment Attractiveness Index—Australia and Oceania



* Between 5 and 9 responses

existing regulations (-10 points). However, regulatory factors continue to hinder New South Wales's competitiveness as 89 and 81 percent of respondents pointed to environmental regulations and regulatory duplications and inconsistencies, respectively, as factors deterring 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. According to respondents, Oceania is the lowest ranked region in both overall investment attractiveness and policy perception.

However, within Oceania, all three ranked jurisdictions saw improvements in their PPI scores this year. In terms of policy, New Zealand is still the best performing jurisdiction in the region ranking 32nd (of 77) with a score of 80.3. This year, miners expressed decreased concerns over New Zealand's political stability (-42 points), its socioeconomic agreements and community developments (-22 points), and the uncertainty concerning disputed land claims (-18 points).

Papua New Guinea's PPI score improved by almost 4 points this year, but its rank dropped from 63rd in 2019 to 71st in 2020 and it continues to be the lowest ranking jurisdiction in Oceania when considering policy alone. Eighty-nine percent of respondents indicated that the country's infrastructure and security are the two main policy factors deterring investment.

Despite seeing an almost 7-point increase in its PPI score, Indonesia's rank dropped from 64th in 2019 to 69th in 2020. Respondents expressed decreased concerns over the uncertainty around disputed land claims (-40 points), protected areas (-35 points), and regulatory duplication and inconsistencies (-19 points). Ninety percent of respondents cited the country's legal system as a main deterrent to investment.

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

Onerous regulations and costly license fees are deterring investors.
—An exploration company, Consultant

Northern Territory

The new environmental protection bill is an investment and job killer.
— An exploration company, Company president

Victoria

The Victorian government's decision to ban fracking is deterring investment.
— A producer company with more than US\$50M, Senior Management

Western Australia

Western Australia has an excellent process to settle disputes between claimants.
—An exploration company, Senior Management

New Zealand

The regulatory process is unclear and often unjust.
—An exploration company, Company president

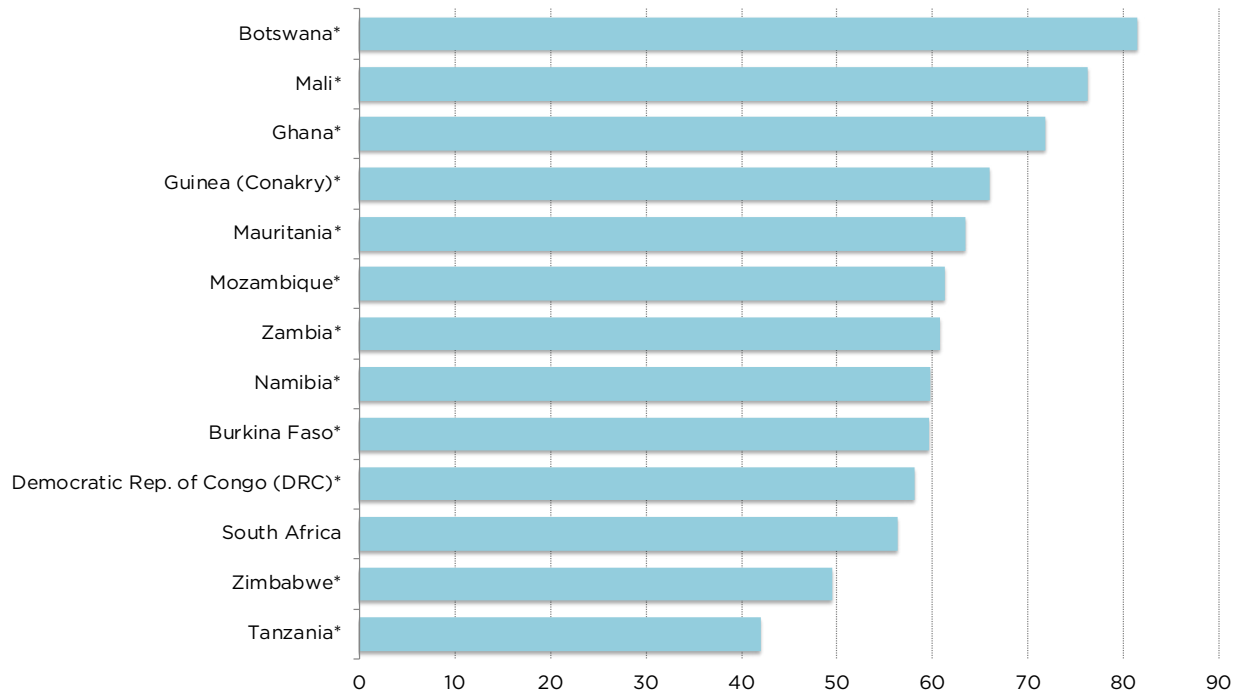
Africa

The median score for Africa on the investment attractiveness index showed an increase of 9 points this year. In addition, Africa's median PPI score increased by almost 20 points and is no longer the worst performing region in terms of policy environment for mining activities. In fact, all African jurisdictions, with the exception of Namibia, increased their policy scores. In terms of overall investment attractiveness, as a region, Africa ranks as the second least attractive jurisdiction for investment with a median score of 60.83.

Three African countries—Zimbabwe (75th), Tanzania (72nd), and the Democratic Republic of Congo (70th)—ranked in the bottom 10 of the survey rankings this year based on policy. Zimbabwe was also amongst the bottom 10 in the previous eight years. Based on their overall investment attractiveness two African jurisdictions were ranked in the global bottom 10: Tanzania (75th) and Zimbabwe (70th).

Botswana is the highest ranked jurisdiction in Africa on policy, ranking 15th (of 77) in 2020, after ranking 22nd (of 76) in 2019. Botswana's increase in its PPI score (almost 8 points) reflects decreased concerns over labour regulations and employment agreements (-43 points), its taxation regime (-33 points), and uncertainty concerning protected areas (-29 points). Botswana is also the most attractive jurisdiction in Africa when considering both policy and mineral potential ranking 11th out of 77 in overall investment attractiveness.

Mali is the second most attractive jurisdiction when only policies are considered, ranking 37th (of 77) this year after ranking 65th (of 76) in 2019. Mali's PPI score increased considerably by almost 33

Figure 9: Investment Attractiveness Index—Africa

* Between 5 and 9 responses

points. Investors expressed decreased concerns over the availability of labour and skills (-75 points), regulatory duplication and inconsistencies (-73 points), and its geological database (-71 points). In terms of overall attractiveness, Mali ranks 21st (of 77) after ranking 68th (of 76) in 2019.

Guinea increased its policy score by 33 points—the single-largest increase among all African jurisdictions—and went from ranking 68th (of 76) in 2019 to 44th (of 77) in 2020. Investors indicated decreased concerns over the country's legal system (-60 points), its labour regulations and employment agreements (-60 points), and its socioeconomic agreements (-40 points).

Namibia, the only African jurisdiction which did not improve its PPI score, experienced a 13-point decline in its policy score making it drop in the overall policy ranking from 14th (of 76) in 2019 to 47th (of 77) in 2020. Investors expressed increased concerns over the availability of labour/skills (+44 points), regulatory duplication and inconsistencies (+43 points), and infrastructure (+37 points).

Comments: Africa

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

Democratic Republic of Congo

The lack of transparency in the renegotiation of mining agreements hurts the DRC's mining competitiveness.

—An exploration company, Company president

Mauritania

Overall unclear governance, predatory tax behaviour, and uncertainty about the clarity of license approvals and application of regulations.

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

Namibia

Dropping the New Equitable Economic Empowerment framework for exploration companies is good news for the mining industry.

—An exploration company, Company president

The unilateral withdrawal of VAT exemption for exploration companies hurts Namibia's competitiveness.

—An exploration company, Company president

Tanzania

The new mining code is completely hostile to foreign investment.

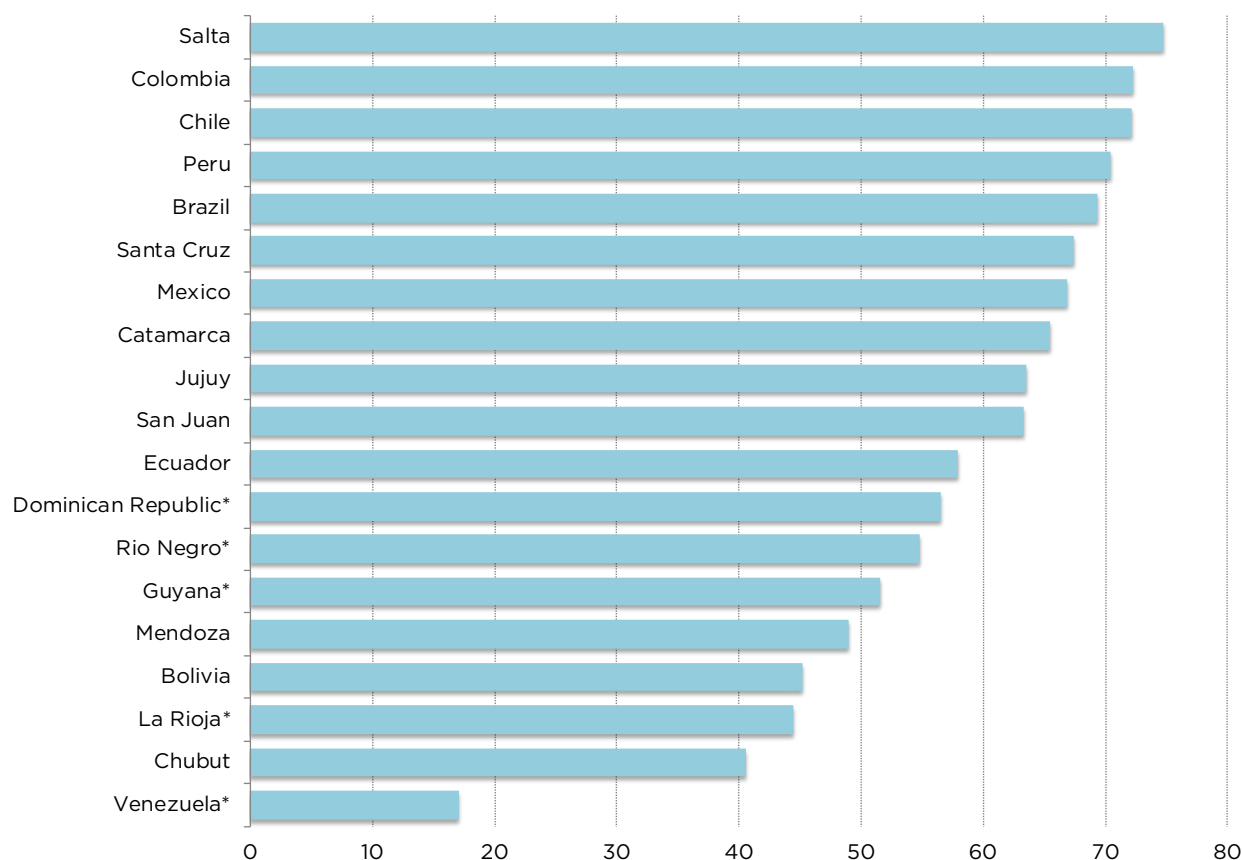
—A producer company with less than US\$50M, Company president

Zambia

Political corruption permeates the approval permits processes.

—A consulting company, Consultant

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



* Between 5 and 9 responses

Argentina, Latin America, and the Caribbean Basin

This year, Argentina ranked as the 5th most attractive region in the world for investment with a median investment attractiveness score of 63.35. It improved its PPI score from 64.36 in 2019 to 74.67 in 2020, a 10-point increase. This year, all Argentinian provinces increased their PPI scores with the exception of San Juan.

Salta (21st of 77) is the best ranked Argentinian province when considering policy alone with a score of 87.87. Respondents this year showed decreased concerns over the availability of labour and skills (-34 points), its geological database (-31 points), and its socioeconomic agreements and community development conditions (-21 points).

Jujuy saw the largest PPI score increase among Argentinian provinces going from 57.44 in 2019 to 70.63 in 2020. Investors pointed out improvements in the availability of labour and skills (-35 points), the uncertainty around disputed land claims (-32 points), and its geological database (-29 points).

Despite improvements in almost all 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 (76th), Mendoza (73rd), and La Rioja (68th) are the second, fifth, and tenth least attractive jurisdictions for investment globally based on their PPI scores. When considering mineral potential and policy factors, the same Argentinian provinces—Chubut (76th), La Rioja (73rd), and Mendoza (71st)—are in the bottom ten jurisdictions globally.

In Latin America and the Caribbean Basin, the median investment attractiveness score increased by 0.05 this year, holding its position as the third least attractive region for mining investment globally. The most attractive Latin American and Caribbean jurisdictions for mining investment in 2020 were Colombia (28th), followed by Chile (30th), and Peru (34th). Based on their investment attractiveness scores, two jurisdictions in this region—Venezuela and Bolivia—ranked in the global bottom 10.

The same two 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 for the 10th year in a row.

The median PPI score for Latin America and the Caribbean Basin increased by almost 7 points since 2019. Overall, Chile (23rd), Peru (42nd), Guyana (53rd), and Brazil (56th) are the most attractive jurisdictions in the region for investment, based on policy.

However, Chile and Brazil were the only Latin American and Caribbean jurisdictions that saw reductions in their PPI scores, with declines of 3.8 and 3.1 points respectively since 2019. Miners in Chile expressed increased concerns over the country's political stability (+20 points) possibly reflecting the 2019-2020's "social outbreak" protests, its taxation regime (+14 points), and security (+9 points). Respondents familiar with Brazil's mining activities also expressed increased concerns over its socioeconomic agreements and community developments (+25 points), security (+22 points), and its taxation regime (+15 points).

Peru saw an increase in its PPI score of 8 points compared to its 2019 results. Peru's rank increased from 45th (of 76) in 2019 to 42nd (of 77) in 2020. This year, respondents expressed decreased concern over uncertainty concerning environmental regulations (-33 points), uncertainty regarding the administration and enforcement of existing regulations (-21 points), and regulatory duplication and inconsistencies (-21 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.

Chile

The creation of an office to centralize the coordination of major projects is good news for the mining sector.

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

Colombia

Stakeholder consultations are unnecessarily lengthy and hinder the permit approval process.

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

Ecuador

Water permits take over a year or two to obtain.

—An exploration company, Senior Management

Jujuy

Constant political intervention scares away investment in Jujuy.

—An exploration company, Senior Management

Mexico

The federal government is hostile towards the mining industry and is actively not issuing any new permits.

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

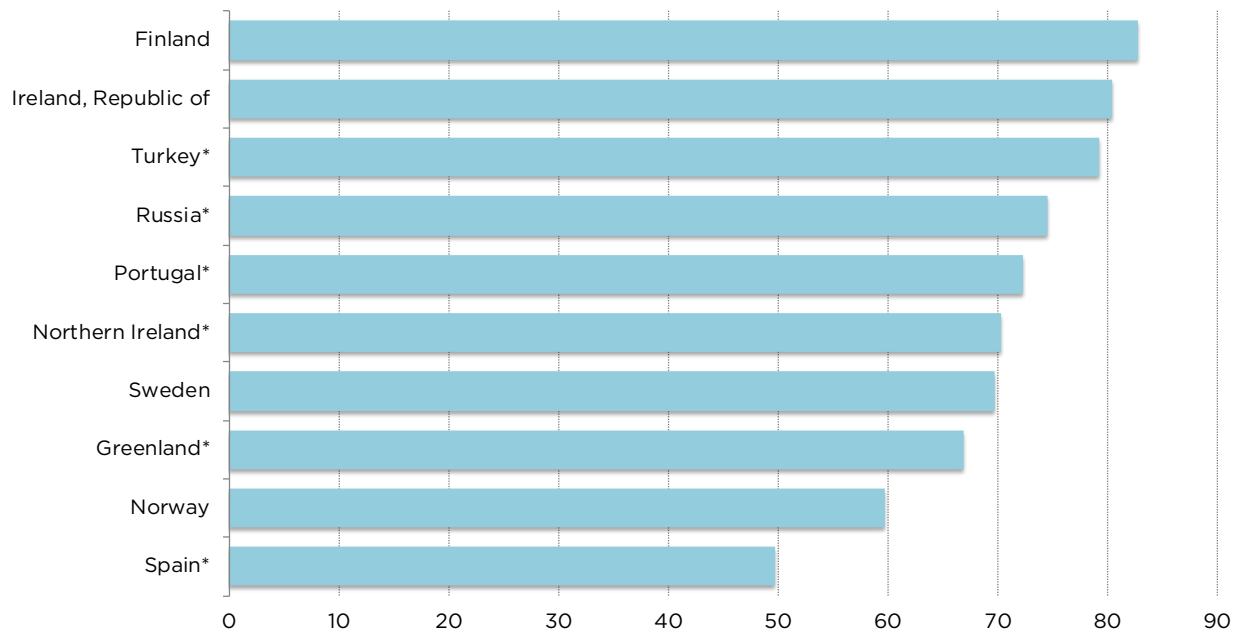
Peru

Regulatory inconsistencies make the drilling permit application interminable.

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

Figure 11: Investment Attractiveness Index—Europe

* Between 5 and 9 responses

Europe

Europe's median investment attractiveness score decreased by 10 points this year compared to its 2019 results. This year, only Finland (10th) ranked in the global top 10 based on investment attractiveness. All European jurisdictions saw declines in their investment attractiveness score in 2020 with the exception of Greenland (+2 points) and the countries which didn't feature in last year's survey (Northern Ireland, Russia, and Spain). Sweden (-12 points), Portugal (-12 points), and Norway (-11 points) saw the most substantial decreases. The lowest ranked European jurisdiction in terms of investment attractiveness is Spain (69th).

This year, Finland (3rd) and the Republic of Ireland (4th) featured in the global top 10 on policy, with scores of 99.07 and 98.72 points, respectively. These two countries have consistently ranked in the PPI top 10 every year over the last nine years. The Republic of Ireland saw its PPI score increase by 3 points, but the country experienced a decline in its position in the policy ranking from 2nd (of 76) in 2019 to 4th (of 77) in 2020. Miners expressed increased concerns over the administration, interpretation, and enforcement of existing regulations (+25 points), its labour regulations (+18 points), and its environmental regulations (+17 points).

Despite being a top jurisdiction worldwide, Finland saw a decrease of almost 1 point in its PPI score. Investors expressed increased concerns over its taxation regime (+24 points), regulatory duplication and inconsistencies (+20 points), and disputed land claims (+11 points).

Turkey saw a considerable decline in its PPI score and rank in 2020. This year, the country decreased its PPI score by over 9 points and decreased its position in the rankings from 28th (of 76) in 2019 to 52nd (of 77) in 2020. Miners expressed increased concern over disputed land claims (+40 points), its infrastructure (+29 points), and its taxation regime (+26 points).

Greenland, despite being the lowest ranked European jurisdiction when considering policy alone, increased its PPI score by 3 points but experienced a decline in the policy ranking from 48th (of 76) in 2019 to 55th (of 77). Miners expressed decreased concern over protected areas (-23 points), its socioeconomic agreements and community developments (-22 points), and its labour regulations and employment agreements (-17 points).

Sweden saw its PPI score decline by 1 point this year, and it dropped in the rankings from 12th (of 76) in 2019 to 20th (of 77) in 2020. Investors expressed increased concern over regulatory enforcement (+14 points), geological database (+14 points), and regulatory duplication and inconsistencies (+13 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

Political instability and the lack of qualified officials create uncertainty for investors.
—A consulting company, Consultant

Republic of Ireland

The government is currently carrying out regional geophysical surveys and is actively working with exploration companies to fast track areas of interest.
—A consulting company, Company manager

Russia

Institutionalized dialogue between government and mining companies encourages investment.
—A producer company with more than US\$50M, Company vice president

Sweden

Permitting processes continue to be extremely slow and uncertain.

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

Turkey

Political interference in the permitting process scares away foreign investment.

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

Overview

An analysis of the regional trends⁷ in the results of the Investment Attractiveness Index (based on both mineral potential and policy factors) from the 2020 mining survey indicates a stark difference between geographical regions. As indicated by figure 12, Australia is the most attractive region in the world for investment this year, followed by Canada and then the United States. Europe was displaced from the top spot this year, a position it held in 2019.

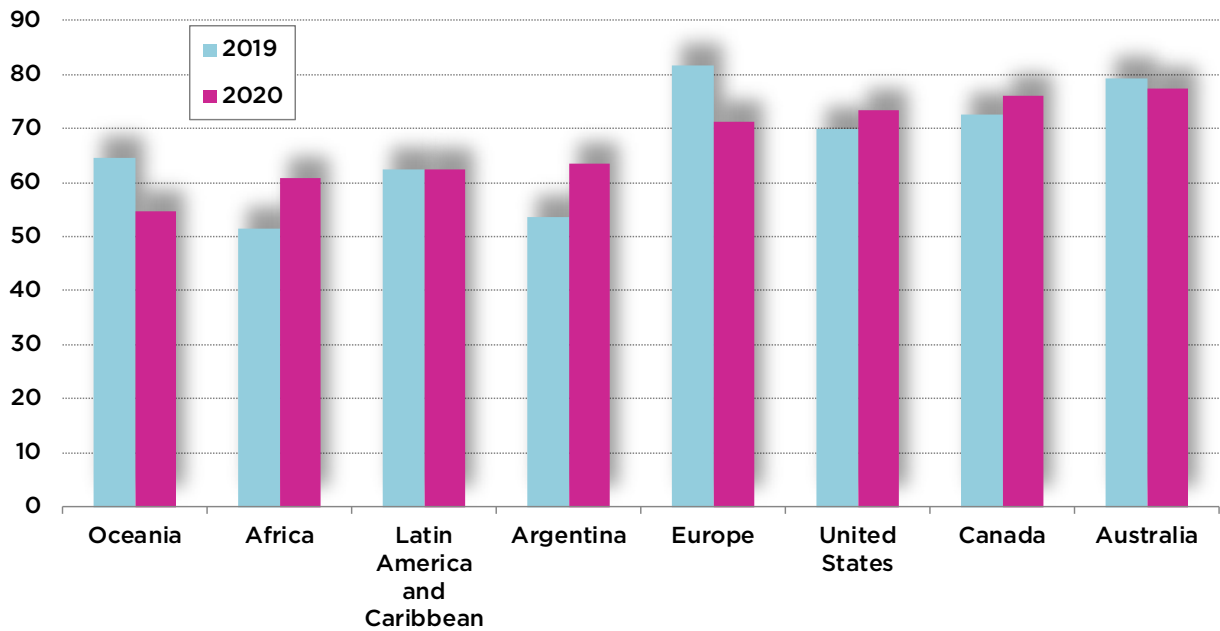
Five regions—Canada, the United States, Argentina, Latin America and the Caribbean, and Africa—saw an increase in their relative investment attractiveness. Africa and Argentina experienced an increase of 18 percent in their regional median score from 2019, while both Canada and the United States experienced a 5 percent increase. Three regions saw a decrease in their relative investment attractiveness. Oceania saw a decrease of 15 percent in its regional median investment attractiveness score, while Europe experienced a considerable decline of 13 percent. Australia, the world’s most attractive region in the world for mining investment, saw a decline of 3 percent in its investment attractiveness score.

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 third 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.

All regions saw increases in their regional median policy scores with the notable exception of Canada (-2 percent). Africa’s median policy score increased considerably by 45 percent this year, although, as a whole, it is still the second least attractive region in the survey. Of the regions included in the survey, Oceania has the least attractive policy environment.

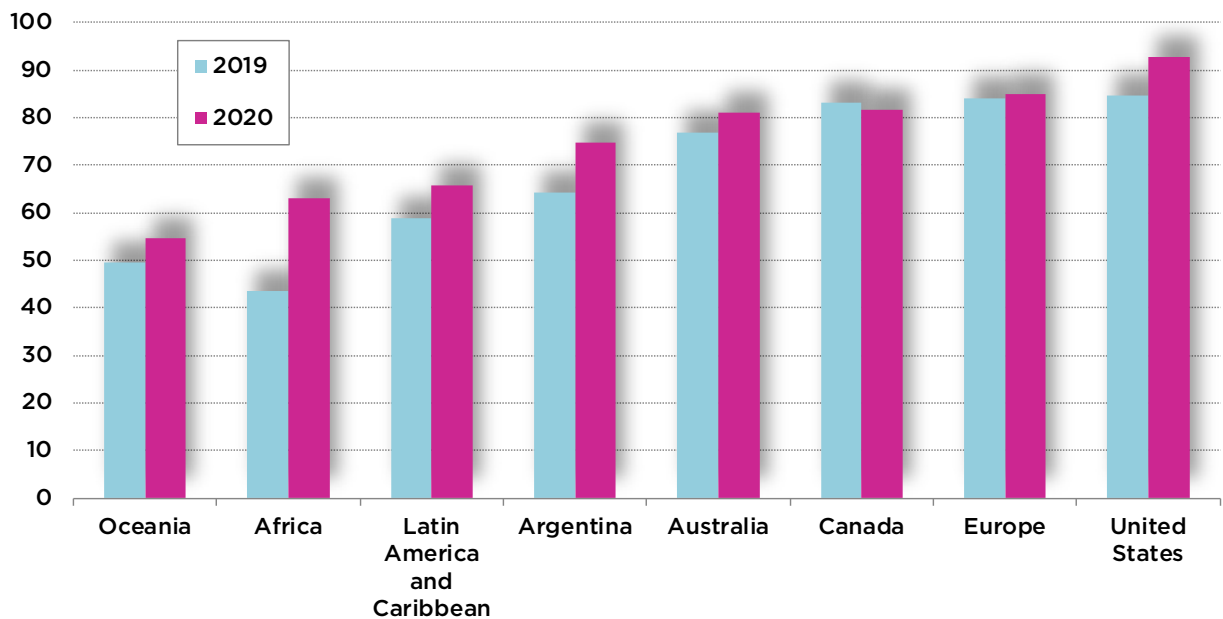
⁷ The regional median investment attractiveness scores are calculated based on the jurisdictions included in each year. As a result, the number of jurisdictions included in the regional score will vary year-over-year depending on the number of survey responses.

Figure 12: Regional Median Investment Attractiveness Scores 2019 and 2020



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

Figure 13: Regional Median Policy Perception Index Scores 2019 and 2020



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

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 is driving the region's investment attractiveness rank is investors' views of America's pure mineral potential and not necessarily policy. In contrast, Australia ranks as the most attractive region for mining investment but ranks 4th when considering policy alone, indicating that what is driving Australia's investment attractiveness is its mineral potential.

Permit Times for Mining Exploration 2020

This year's sub-survey includes and continues the work of the previous editions of the chapter entitled *Permit Times for Mining Exploration in 2018* and *Permit Times for Mining Exploration in 2019*. It is again an early contribution to attempting to assess the exploration permitting process and its possible effects. As with the 2018⁸ and 2019⁹ reports, we undertook a survey of mining executives who recently applied for exploration permits in Canada's provinces and territories, as well as in a number of jurisdictions around the world, to get a better understanding of how timelines for permit approval, transparency, and other issues in the permit approval process differ around Canada and abroad.

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—regions where mining, environmental, and other policies are broadly comparable to those in Canada. This will help gauge Canada's performance in comparison to a number of similar jurisdictions.

To ensure that only individuals with knowledge of 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 allowed access to the sub-survey on exploration permits. This resulted in approximately 172 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, 137 executives and managers answered the permit-time component of the survey. 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

⁸ Ashley Stedman and Kenneth P. Green (2019). *Permit Times for Mining Exploration in 2018*. *Fraser Institute Annual Survey of Mining Companies 2018*. Fraser Institute.

⁹ Ashley Stedman, Jairo Yunis, and Elmira Aliakbari (2020). *Permit Times for Mining Exploration in 2019*. *Fraser Institute Annual Survey of Mining Companies 2018*. Fraser Institute.

Figure 14: The Position Permit Times Sub-Survey Respondents Hold in Their Company, 2020

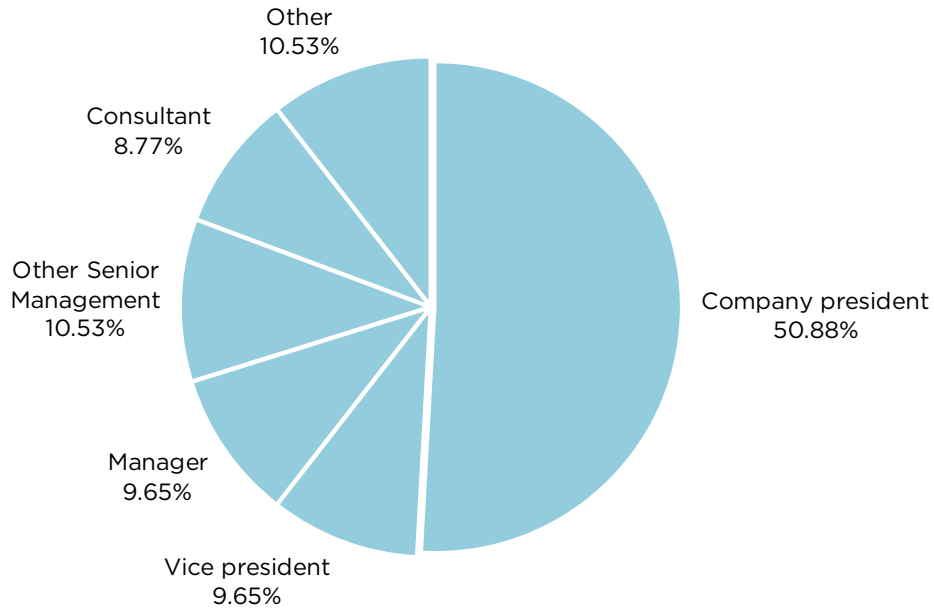


Figure 15: Company Focus as Indicated by Permit Times Sub-Survey Respondents, 2020

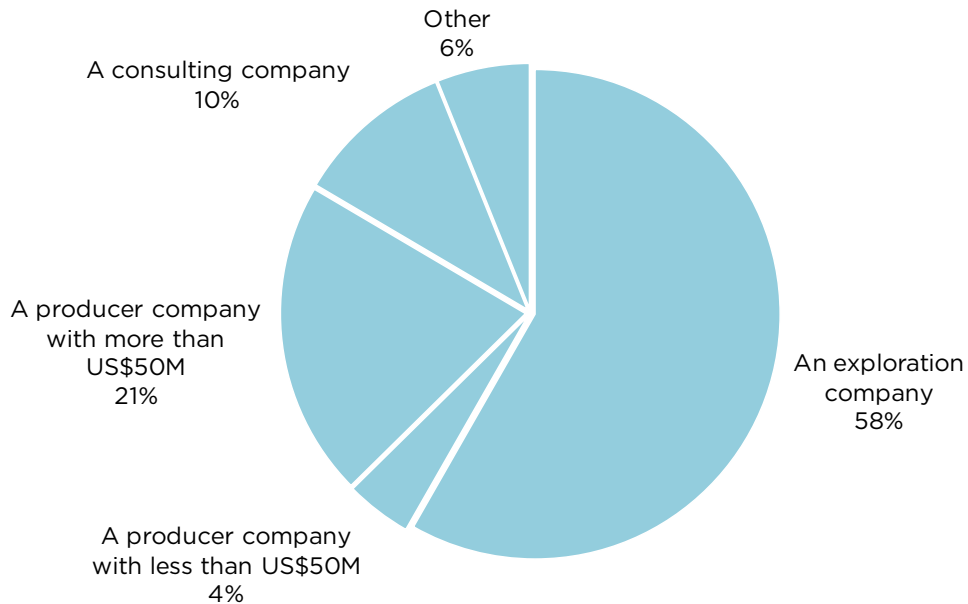


Table 6: Jurisdictions Discussed

Canada	United States	Australia	Scandinavia
British Columbia	Idaho*	New South Wales	Finland*
Manitoba	Nevada	Northern Territory*	
New Brunswick*		Queensland	
Northwest Territories*		South Australia*	
Nova Scotia*		Victoria*	
Nunavut*		Western Australia	
Ontario			
Quebec			
Saskatchewan			
Yukon			

*Between 5 and 9 responses

and 9 responses have been noted in subsequent tables to indicate that results for these jurisdictions are likely not as robust as those for jurisdictions with 10 or more responses.

It is worth noting that, due to insufficient responses, Scandinavia and the United States have only one and two jurisdictions, respectively, featuring in this sub-survey.

A little over half of respondents (51 percent) to the permit-time component of the *Annual Survey of Mining Companies* were company presidents. A further 19 percent of respondents were either company vice-presidents or managers (figure 14). Over half of respondents, 58 percent, were from exploration companies. An additional 25 percent of responses came from producer companies that are also involved in exploration activities (figure 15).

Results

The results of the survey have been broken into five areas: the length of time it takes to be approved for the necessary permits, changes over time, the transparency, certainty, and confidence 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 in all the subsequent tables.

Time

Length of time to receive permits

To assess how the length of the permitting process differs among jurisdictions, we asked three questions. Question 1 asked respondents 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

Quebec performed particularly well this year on the amount of time it takes to acquire necessary permits for exploration activities; half of respondents indicated that they were able to acquire the necessary permits for exploration in two months or less. Nova Scotia, on the other hand, was the only Canadian jurisdiction in which no respondent 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 26 percent.

Among the territories, the Northwest Territories has the lowest percentage of respondents, 33 percent, who acquired permits in six months or less. The Yukon, where 65 percent of respondents indicated that they received their necessary permits in less than six months, performs better than Nunavut, where 63 percent indicated that this was the case. Overall, provinces like Quebec and Ontario, which attract exploration investment for similar types of commodities, outperform the territories when it comes to the permit times. For instance, 83 percent of respondents for Quebec and 81 percent in Ontario acquired the necessary permits for exploration in six months or less. The best performer in this category was Saskatchewan where 92 percent of respondents were able to secure permits in six months or less.

Amongst the three provinces which attract the majority of Canadian exploration spending on base metals and precious metals—British Columbia, Ontario, and Quebec—the results are somewhat mixed. For example, Quebec (50 percent) and Ontario (33 percent) had higher percentages of respondents indicating that they expected it would take two months or less to acquire the necessary exploration permits. However, in British Columbia, only 13 percent of respondents were able to acquire the necessary permits for exploration in two months or less. And when asked about acquiring permits in six months or less, British Columbia again underperforms compared to its two Canadian competitors with the lowest percentage of respondents (65 percent) who indicated that they expected to spend six months or less acquiring the necessary permits. In fact, 35 percent of respondents for British Columbia indicated that they expected to spend more than six months to

Table 7: Amount of Time Respondents Expected to Spend Getting the Permits, Licences, 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%	52%	17%	9%	9%	0%	0%
Manitoba	31%	38%	13%	6%	0%	0%	13%
New Brunswick*	20%	60%	20%	0%	0%	0%	0%
Northwest Territories*	33%	0%	33%	0%	33%	0%	0%
Nova Scotia*	0%	80%	20%	0%	0%	0%	0%
Nunavut*	13%	50%	25%	13%	0%	0%	0%
Ontario	33%	48%	10%	5%	0%	0%	5%
Quebec	50%	33%	8%	0%	8%	0%	0%
Saskatchewan	42%	50%	8%	0%	0%	0%	0%
Yukon	24%	41%	18%	6%	0%	0%	12%
Idaho*	29%	14%	0%	29%	29%	0%	0%
Nevada	50%	21%	21%	0%	7%	0%	0%
New South Wales	10%	33%	14%	10%	10%	0%	24%
Northern Territory*	14%	43%	14%	14%	0%	0%	14%
Queensland	21%	21%	29%	14%	7%	7%	0%
South Australia*	0%	20%	40%	20%	0%	0%	20%
Victoria*	0%	60%	20%	0%	20%	0%	0%
Western Australia	10%	60%	20%	10%	0%	0%	0%
Finland*	0%	40%	0%	40%	0%	20%	0%

*Between 5 and 9 responses

get their exploration permits whereas that percentage dropped to only 17 percent of respondents for Quebec and 19 percent of respondents for Ontario.

United States

Of the two jurisdictions in the United States with sufficient responses to be included in this sub-survey, the percentage of respondents who had to wait more than six months to get their required permits was lower in Nevada (29 percent) than in Idaho (57 percent).

Australia

In Australia, out of the six jurisdictions included in this analysis, only two—South Australia and Victoria—had no respondents indicating that they were able to receive their permits within two months or less. Western Australia had the highest percentage of respondents indicating that they

received their permits in 6 months or less, at 70 percent. Additionally, 57 percent of respondents in New South Wales and Queensland indicated they waited for more than six months for their permits. The worst performing Australian jurisdiction in this measure is South Australia where 80 percent of respondents indicated that they waited for more than six months to obtain their permits.

When compared to Canada, most of Australia performed poorly for timely permitting of exploration. Of particular concern for Australia are the sizable percentages of respondents in a couple of the Australian jurisdictions that indicated that it was taking 24 months or more to receive their permits. For example, 24 percent of respondents for New South Wales and 20 percent for South Australia indicated that it took 24 months or more to receive their permits.

Scandinavia

Finland was the only Scandinavian jurisdiction with sufficient responses to be included in the sub-survey. None of the respondents for Finland were able to acquire their permits in 2 months or less and 60 percent claimed that it took 11 months or more to obtain the necessary permits.

Overall

When comparing the four regions included in the survey—Canada, the United States, Australia, and Scandinavia—Canadian jurisdictions on average have a higher percentage of respondents indicating that they received their permits in six months or less. This average was 71 percent amongst Canadian jurisdictions, 57 percent amongst the two US jurisdictions, 49 percent amongst Australian jurisdictions, and 40 percent for the only Scandinavian country.

Changes over time

We also sought to assess how the times explorers expected to spend attaining permit approval had changed over the last ten years.

Canada

The results, in general, indicate that permit approval times are lengthening in Canada. In six out of the 10 provinces and territories included in the sub-survey (British Columbia, Manitoba, New Brunswick, Nova Scotia, Nunavut, and the Yukon), 60 percent of respondents or more said that the time to permit approval had lengthened over the last 10 years (table 8). In particular, 94 percent of respondents for Manitoba and 80 percent for Nova Scotia claimed that the time it took to receive permit approvals had lengthened somewhat or considerably over the past 10 years.

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%	4%	17%	57%	17%
Manitoba	0%	0%	6%	44%	50%
New Brunswick*	0%	0%	40%	20%	40%
Northwest Territories*	0%	17%	33%	17%	33%
Nova Scotia*	0%	0%	20%	40%	40%
Nunavut*	0%	13%	13%	63%	13%
Ontario	9%	14%	18%	32%	27%
Quebec	0%	25%	50%	17%	8%
Saskatchewan	0%	17%	25%	42%	17%
Yukon	0%	17%	6%	44%	33%
Idaho*	14%	29%	43%	14%	0%
Nevada	7%	21%	43%	14%	14%
New South Wales	0%	19%	33%	29%	19%
Northern Territory*	0%	14%	29%	43%	14%
Queensland	7%	21%	29%	21%	21%
South Australia*	0%	40%	40%	0%	20%
Victoria*	0%	0%	60%	40%	0%
Western Australia	10%	70%	10%	10%	0%
Finland*	0%	0%	40%	60%	0%

*Between 5 and 9 responses

Of the three provinces attracting the bulk of Canada's exploration spending, British Columbia had the highest percentage of respondents (74 percent) indicating that the time for permit approvals had either lengthened somewhat or lengthened considerably, compared to 59 percent in Ontario and only 25 percent in Quebec (the best Canadian performer in this category).

United States

In the two US states included in this section, less than 30 percent of respondents indicated that time to permit approval had lengthened. In particular, Idaho saw 14 percent of its respondents indicate that the time to permit approval had lengthened somewhat or considerably compared to 29 percent of respondents for Nevada.

Australia

Four of the six Australian jurisdictions had 40 percent or more respondents indicating that the time to permit approval had either lengthened somewhat or considerably. Western Australia was the best performing jurisdiction in the country on this measure, with only 10 percent of respondents indicating that the time to permit approval had lengthened in some way; the Northern Territory was the worst performer with 57 percent. Queensland had the highest percentage of respondents (21 percent) of all Australian jurisdictions included in this analysis who indicated that the time to permit approval had lengthened considerably.

Scandinavia

60 percent of respondents for Finland indicated that the time to permit approval had lengthened somewhat while 40 percent claimed it stayed the same.

Overall

Overall, Canada is performing poorly relative to other regions for the lengthening of its permit approval times. An average of 65 percent of respondents for the Canadian jurisdictions indicated that the time to permit approval had lengthened either somewhat or considerably over the past ten years compared to 60 percent in Finland, 36 percent in Australia, and 21 percent in the United States.

Timeline Certainty

It is also important to those applying for exploration permits that the permit-granting organizations adhere to advertised timelines. If the organizations do meet the expected milestones—extending the time it takes to get a permit—this can place additional costs and risks on firms and act as a deterrent to investment (table 9).

Canada

In Canada, the Northwest Territories (83 percent), Manitoba (60 percent), and the Yukon (50 percent) had the highest percentages of respondents indicating that the permitting authority met its own established timelines or milestones about half the time or less. Quebec and Saskatchewan were the top performers in the country for timeline certainty, with 75 percent of respondents for Saskatchewan and 50 percent for Quebec indicating that the permitting authority met its own established timelines between 80 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	26%	30%	22%	9%	13%
Manitoba	20%	20%	7%	20%	33%
New Brunswick*	40%	20%	40%	0%	0%
Northwest Territories*	17%	0%	33%	17%	33%
Nova Scotia*	0%	60%	20%	20%	0%
Nunavut*	0%	63%	25%	13%	0%
Ontario	43%	14%	29%	10%	5%
Quebec	50%	50%	0%	0%	0%
Saskatchewan	75%	17%	8%	0%	0%
Yukon	28%	22%	11%	17%	22%
Idaho*	57%	14%	29%	0%	0%
Nevada	50%	21%	14%	14%	0%
New South Wales	0%	19%	29%	29%	24%
Northern Territory*	14%	43%	14%	14%	14%
Queensland	21%	43%	14%	14%	7%
South Australia*	20%	40%	20%	0%	20%
Victoria*	0%	60%	0%	20%	20%
Western Australia	70%	30%	0%	0%	0%
Finland*	60%	20%	0%	0%	20%

*Between 5 and 9 responses

United States

In the United States, 29 percent of respondents in both Idaho and Nevada indicated that the permitting authority met its established timelines about half of the time or less.

Australia

Western Australia was the top performing state in Australia when it comes to meeting established timelines: 70 percent of respondents indicated that the permitting authority met its own established timelines or milestones between 80 and 100 percent of the time. This is in stark comparison to New South Wales, where 81 percent of respondents indicated established timelines were met only about

half the time or less. Moreover, 40 percent of respondents for South Australia and Victoria said that timelines were rarely met (half the time or less).

Scandinavia

Finland performs well compared to many other jurisdictions in the survey on timeline certainty, with 80 percent of respondents indicating that timelines for permit approval decisions were met between 60 and 100 percent of the time.

Overall

Overall, Canada is performing poorly relative to other regions for timeline certainty. An average of 41 percent of respondents for the Canadian provinces indicated that established timelines for approval decisions were met half of the time or less. This compares to 40 percent in Australia, 29 percent in the United States, and 20 percent in Finland.

Transparency

Another critical issue in the granting of exploration permits 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, Quebec performs far better than other Canadian provinces and territories included in the sub-survey. No respondents for Quebec reported that a lack of transparency in the permitting process was a deterrent to investment, a performance unmatched by any other Canadian, American, or Australian jurisdiction.

The three territories have a high proportion of respondents indicating that lack of transparency is a deterrent to investment. Half of the respondents for Nunavut and the Yukon and 67 percent for the Northwest Territories cited the lack of transparency as a key deterrent to investment.

Amongst the three provinces that attract the majority of Canadian exploration spending, Quebec performed the best with none of the respondents indicating that a lack of transparency in the exploration permitting process was a deterrent to investment, followed by British Columbia at 35 percent, and then Ontario at 45 percent. The worst performer in this category was Manitoba where 81 percent of respondents cited the absence of transparency as a deterrent to investment.

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%	43%	13%	17%	4%
Manitoba	6%	13%	25%	31%	25%
New Brunswick*	40%	40%	20%	0%	0%
Northwest Territories*	17%	17%	17%	33%	17%
Nova Scotia*	20%	0%	60%	20%	0%
Nunavut*	25%	25%	25%	25%	0%
Ontario	27%	27%	23%	23%	0%
Quebec	67%	33%	0%	0%	0%
Saskatchewan	50%	25%	17%	8%	0%
Yukon	17%	33%	22%	17%	11%
Idaho*	57%	29%	14%	0%	0%
Nevada	36%	57%	0%	0%	7%
New South Wales	5%	38%	33%	19%	5%
Northern Territory*	29%	57%	0%	14%	0%
Queensland	36%	43%	7%	7%	7%
South Australia*	20%	20%	40%	20%	0%
Victoria*	0%	60%	20%	20%	0%
Western Australia	70%	10%	10%	10%	0%
Finland*	60%	40%	0%	0%	0%

*Between 5 and 9 responses

United States

A low share of respondents for both US jurisdictions in this sub-survey indicated that the level of transparency was deterring investment. Seven percent of respondents for Nevada and 14 percent for Idaho stated that the lack of transparency was deterring investment.

Australia

Sixty percent of respondents for South Australia indicated that the level of transparency in the jurisdiction was a deterrent to investment. Fifty-seven percent of respondents for New South

Wales and 40 percent for Victoria claimed that transparency was a deterrent to investment in those jurisdictions. The Northern Territory was the top performer on this measure: only 14 percent of respondents said that the level of transparency was a deterrent to investment in that jurisdiction.

Scandinavia

Finland performs better than the majority of other jurisdictions. No respondents cited the lack of transparency as a deterrent to investment.

Overall

Many Australian and Canadian jurisdictions performed poorly on transparency. For example, 45 percent or more respondents for six out of 10 Canadian provinces and territories in this sub-survey indicated that the level of transparency in the permitting process was a deterrent to investment. The Pan-Canadian average for this measure was 45 percent, which compares to an average of 35 percent in Australia, 11 percent in the United States, and 0 percent in Finland.

Confidence

Another area on which we sought feedback was the confidence of respondents that they would eventually be granted a permit. If firms are not confident that they will be able to acquire the necessary permits to carry out exploration activities once they have met regulatory requirements, it is less likely that they will consider investing in the given jurisdiction (table 11).

Canada

New Brunswick, Quebec, and Saskatchewan were the top Canadian performers in this category. All respondents for these three provinces were highly confident or confident they would be granted the necessary permits. Ninety-one percent of respondents for Ontario and 88 percent for Nunavut indicated that they were either confident or highly confident that they would receive the necessary permits, compared to only 44 percent for Manitoba and just 33 percent for the Northwest Territories.

United States

All of the respondents for both US jurisdictions (Idaho and Nevada) indicated they had confidence or high confidence that they would be granted the required 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%	13%	57%	26%
Manitoba	31%	25%	25%	19%
New Brunswick*	0%	0%	60%	40%
Northwest Territories*	17%	50%	33%	0%
Nova Scotia*	0%	20%	60%	20%
Nunavut*	0%	13%	88%	0%
Ontario	5%	5%	64%	27%
Quebec	0%	0%	25%	75%
Saskatchewan	0%	0%	17%	83%
Yukon	11%	22%	44%	22%
Idaho*	0%	0%	57%	43%
Nevada	0%	0%	36%	64%
New South Wales	14%	5%	52%	29%
Northern Territory*	0%	14%	43%	43%
Queensland	7%	0%	36%	57%
South Australia*	0%	20%	60%	20%
Victoria*	20%	20%	40%	20%
Western Australia	0%	0%	50%	50%
Finland*	0%	0%	40%	60%

*Between 5 and 9 responses

Australia

Two Australian jurisdictions—Western Australia and Queensland—performed quite well for confidence in the permitting process, with 100 percent and 93 percent of respondents, respectively, indicating that they were either highly confident or confident that they would receive their permits. The Northern Territory and New South Wales also performed well, with 86 percent and 80 percent of respondents, respectively, indicating that they were confident or highly confident that they would obtain the necessary exploration permits. Victoria is the only Australian jurisdiction with less than 80 percent of respondents being either highly confident or confident that they would receive their permits.

Scandinavia

All the respondents for Finland indicated that they were highly confident or confident that they would receive their permits.

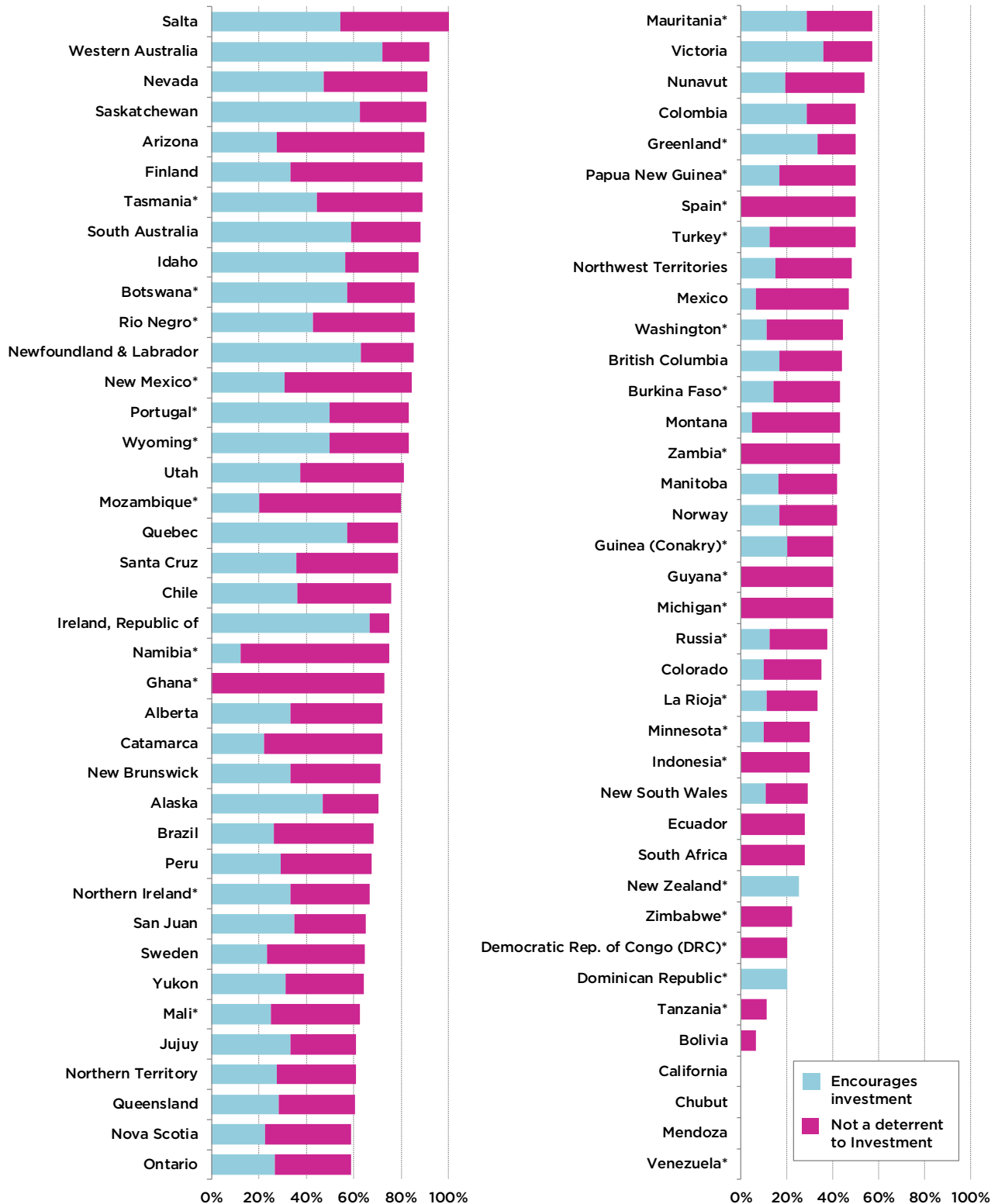
Overall

A comparison of the four regions included in the sub-survey—Canada, the United States, Australia, and Scandinavia—shows that on average, at 78 percent, respondents for Canadian jurisdictions are less confident that the necessary permits will eventually be granted than are respondents for the US and Scandinavian jurisdictions (100 percent each) the Australian jurisdictions (83 percent).

Explanation of the figures

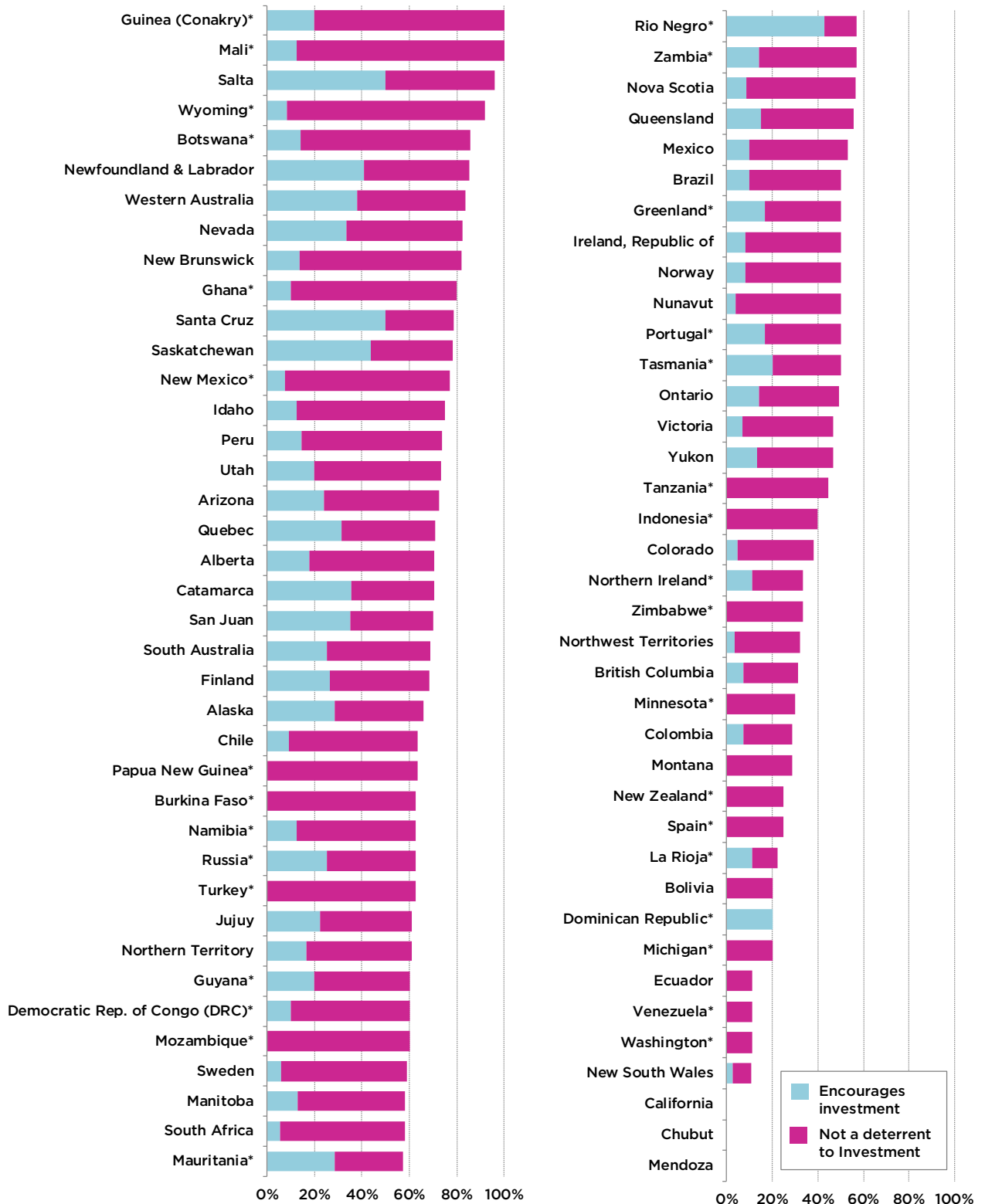
Figures 16 through 30 show the percentage of respondents who rate each policy factor as “encouraging investment” or “not a deterrent to investment: (a “1” or “2” on the scale). Readers will find a breakdown of both negative and positive responses for all areas online at fraserinstitute.org. (Note that 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



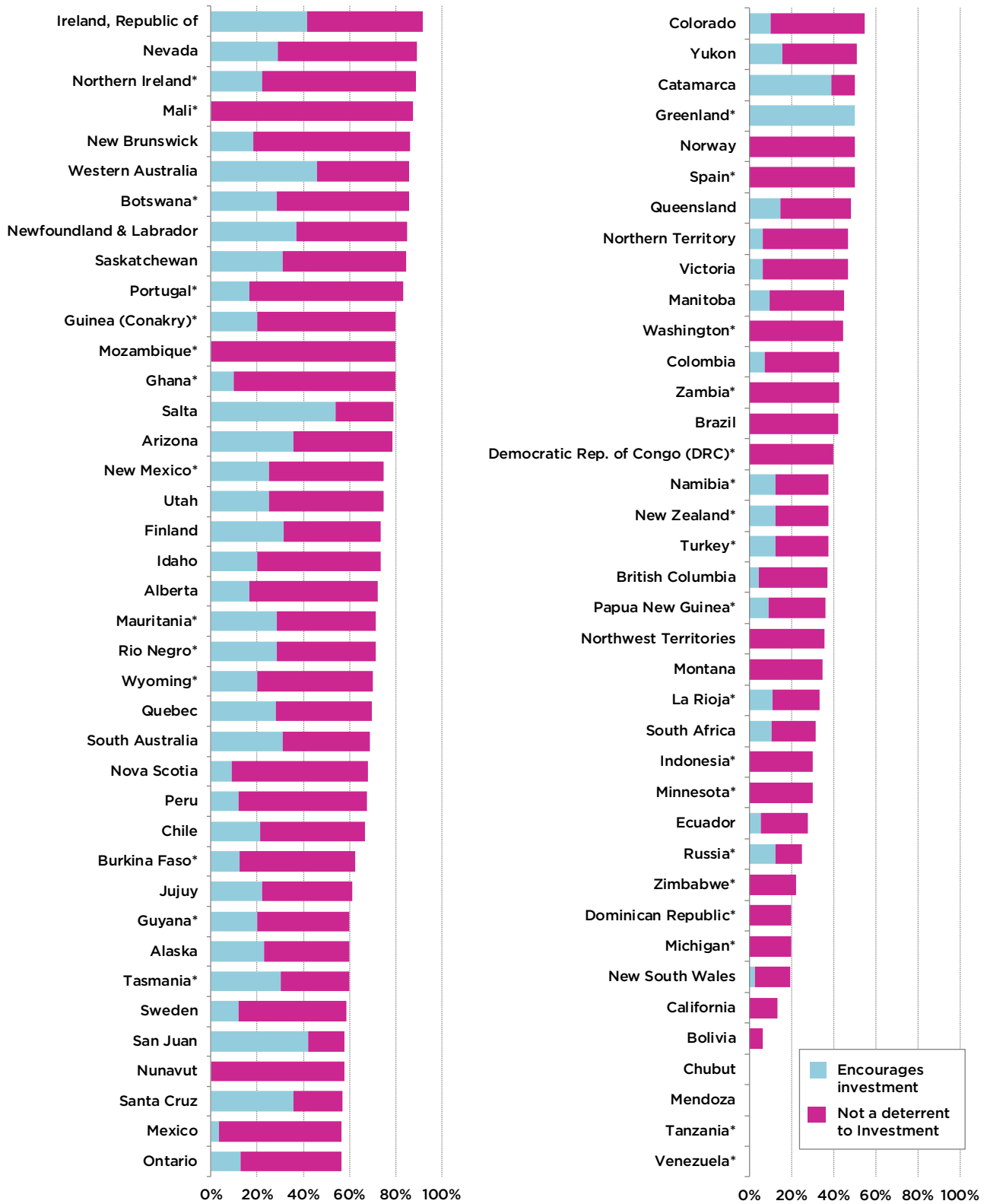
* Between 5 and 9 responses

Figure 17: Uncertainty Concerning Environmental Regulations



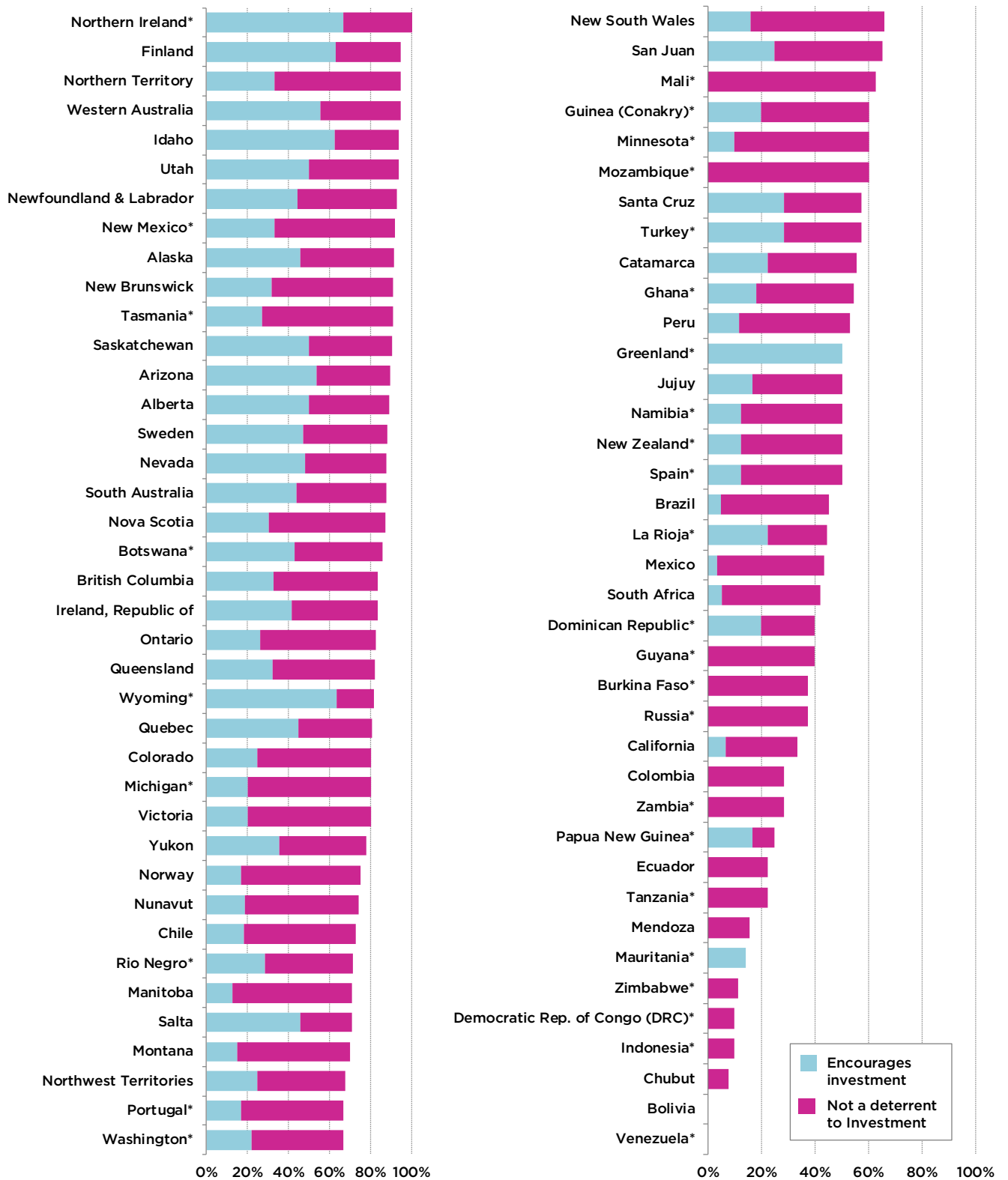
* Between 5 and 9 responses

Figure 18: Regulatory Duplication and Inconsistencies



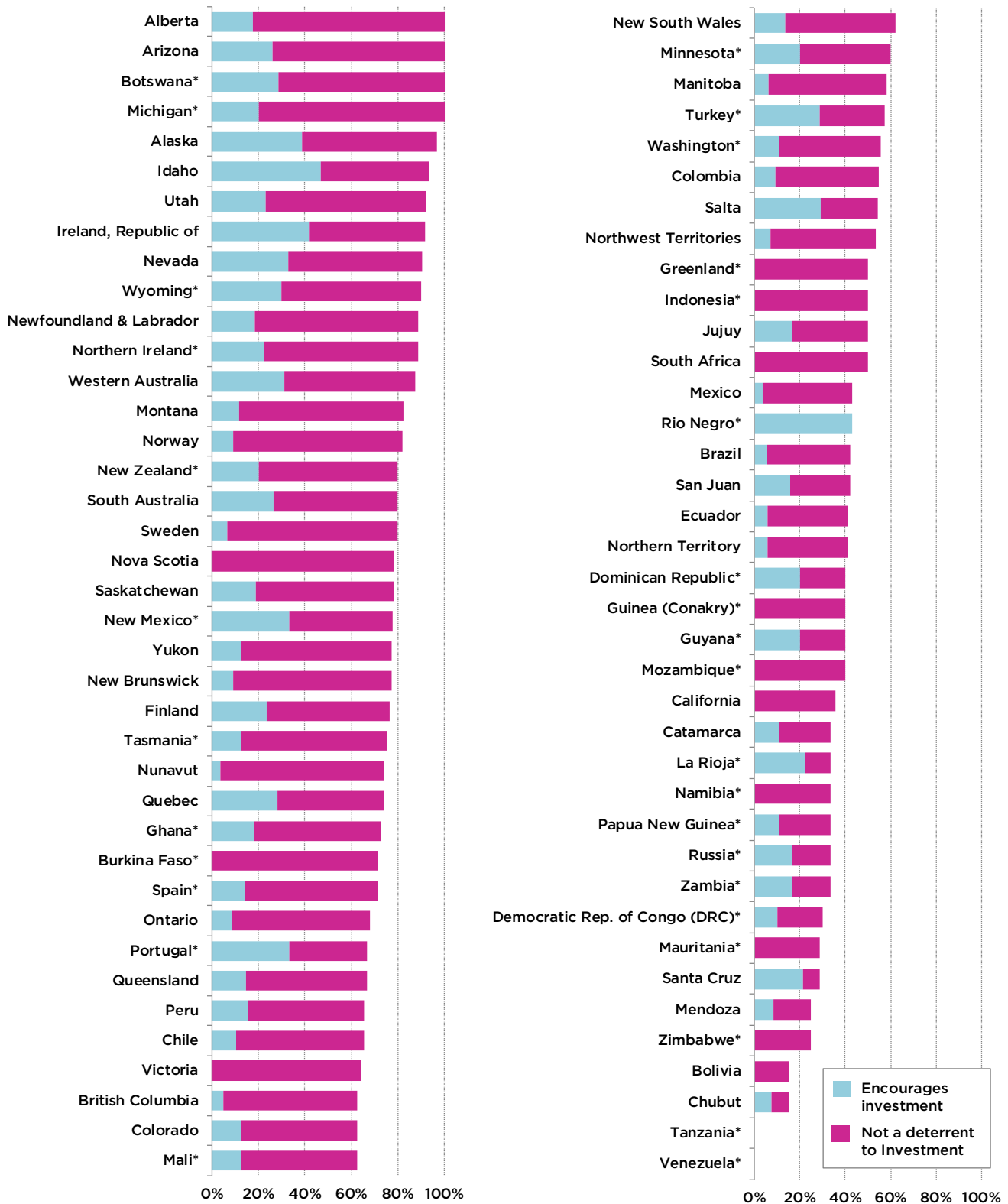
* Between 5 and 9 responses

Figure 19: Legal System



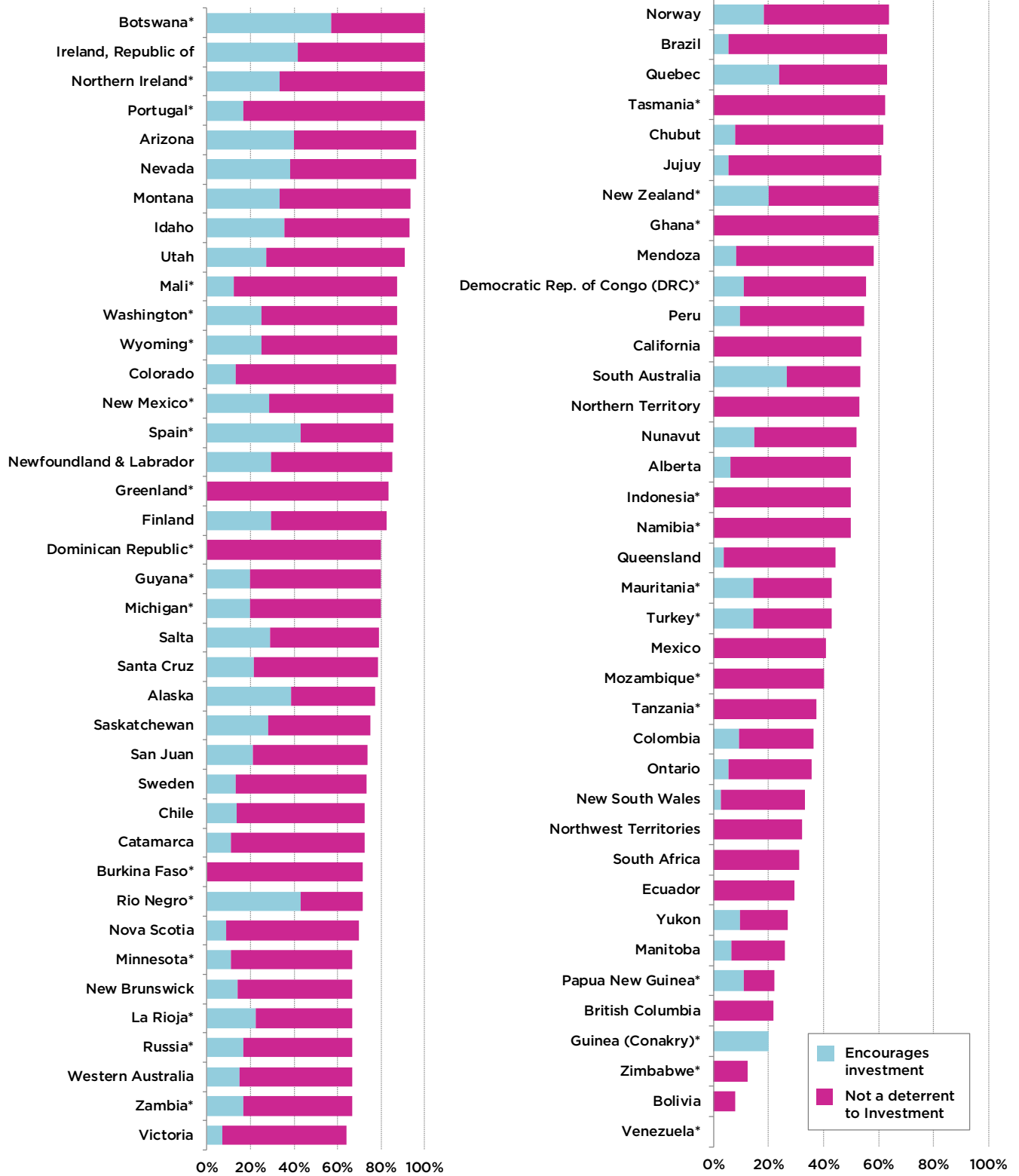
* Between 5 and 9 responses

Figure 20: Taxation Regime



* Between 5 and 9 responses

Figure 21: Uncertainty Concerning Disputed Land Claims



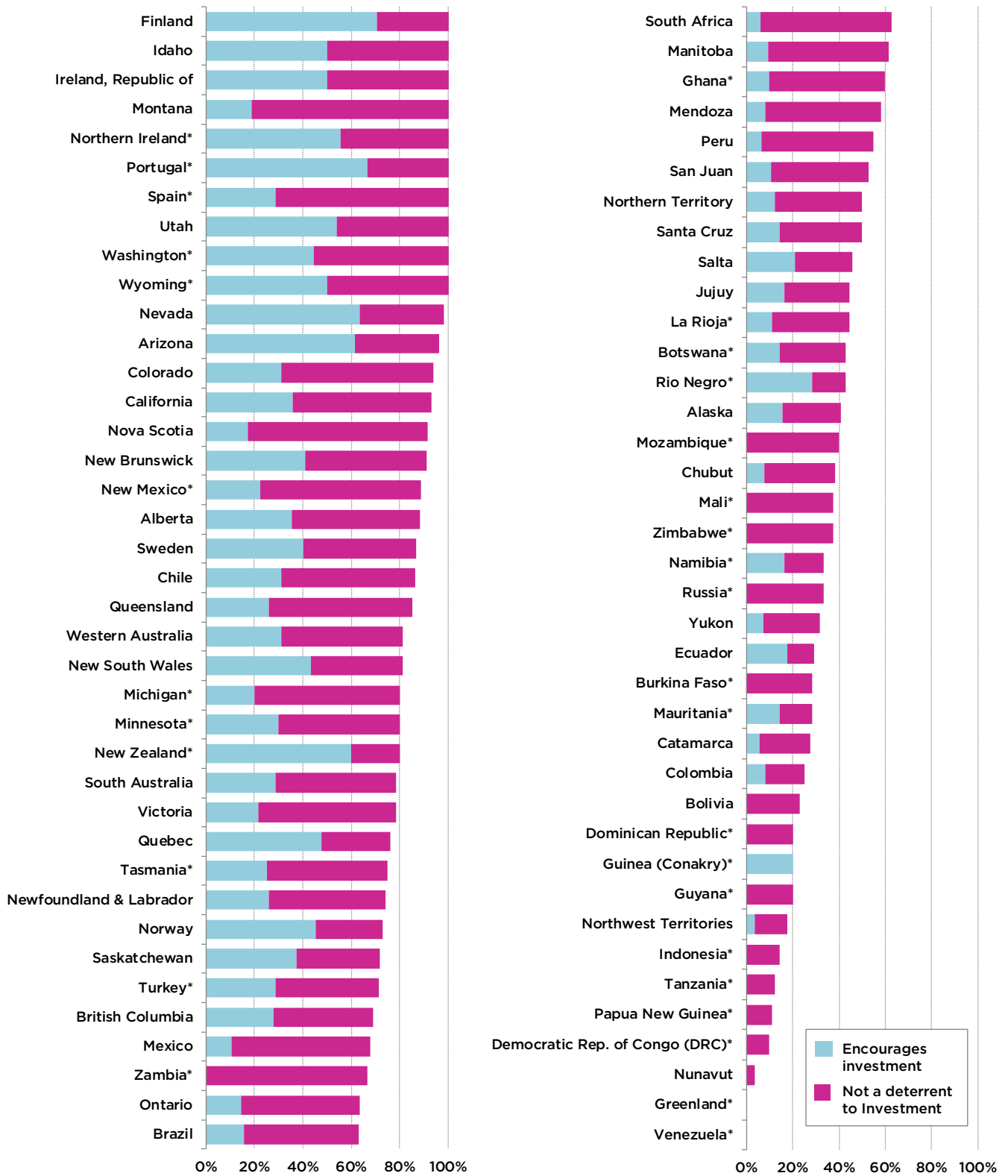
* Between 5 and 9 responses

Figure 22: Uncertainty Concerning Protected Areas



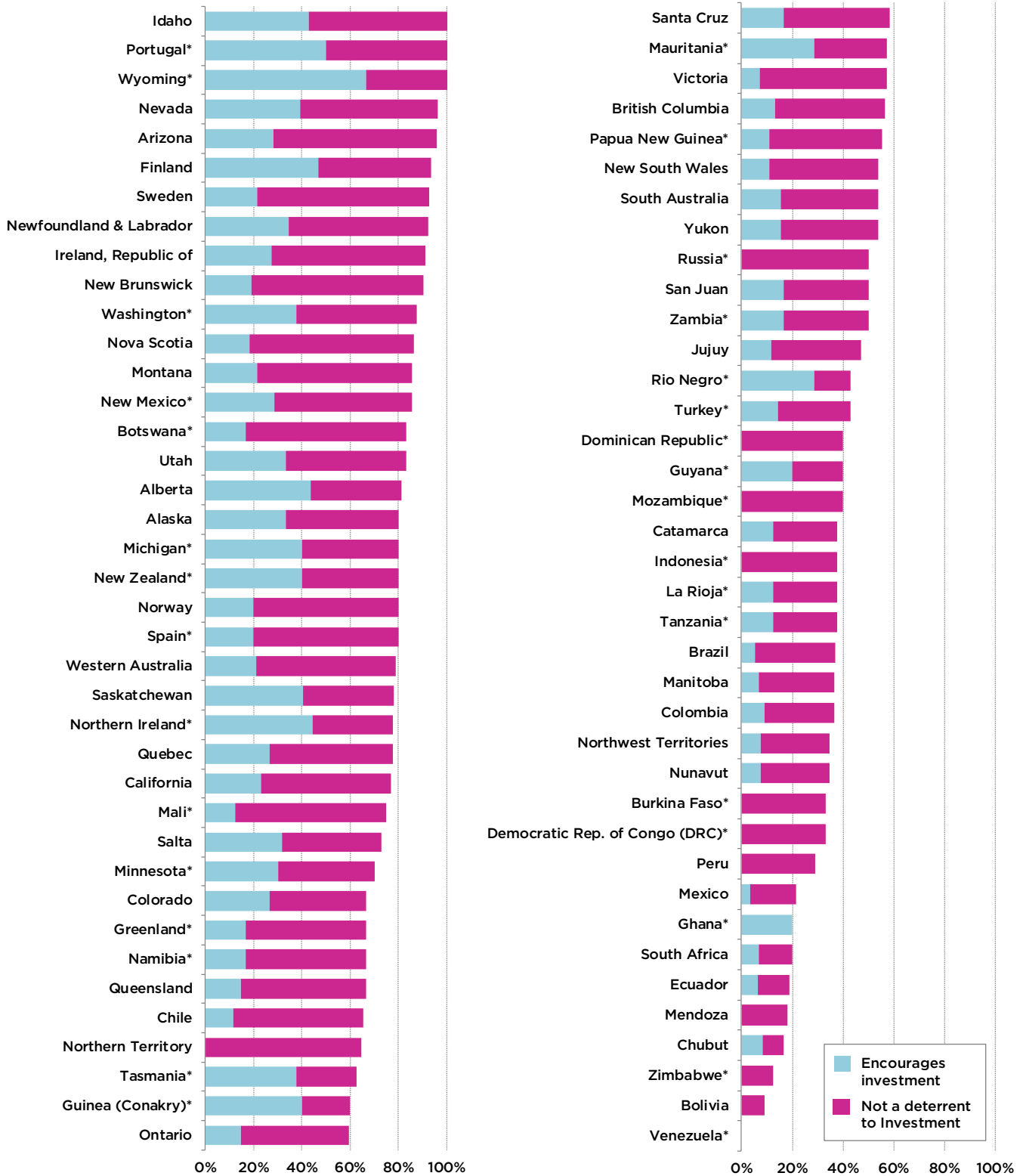
* Between 5 and 9 responses

Figure 23: Quality of Infrastructure



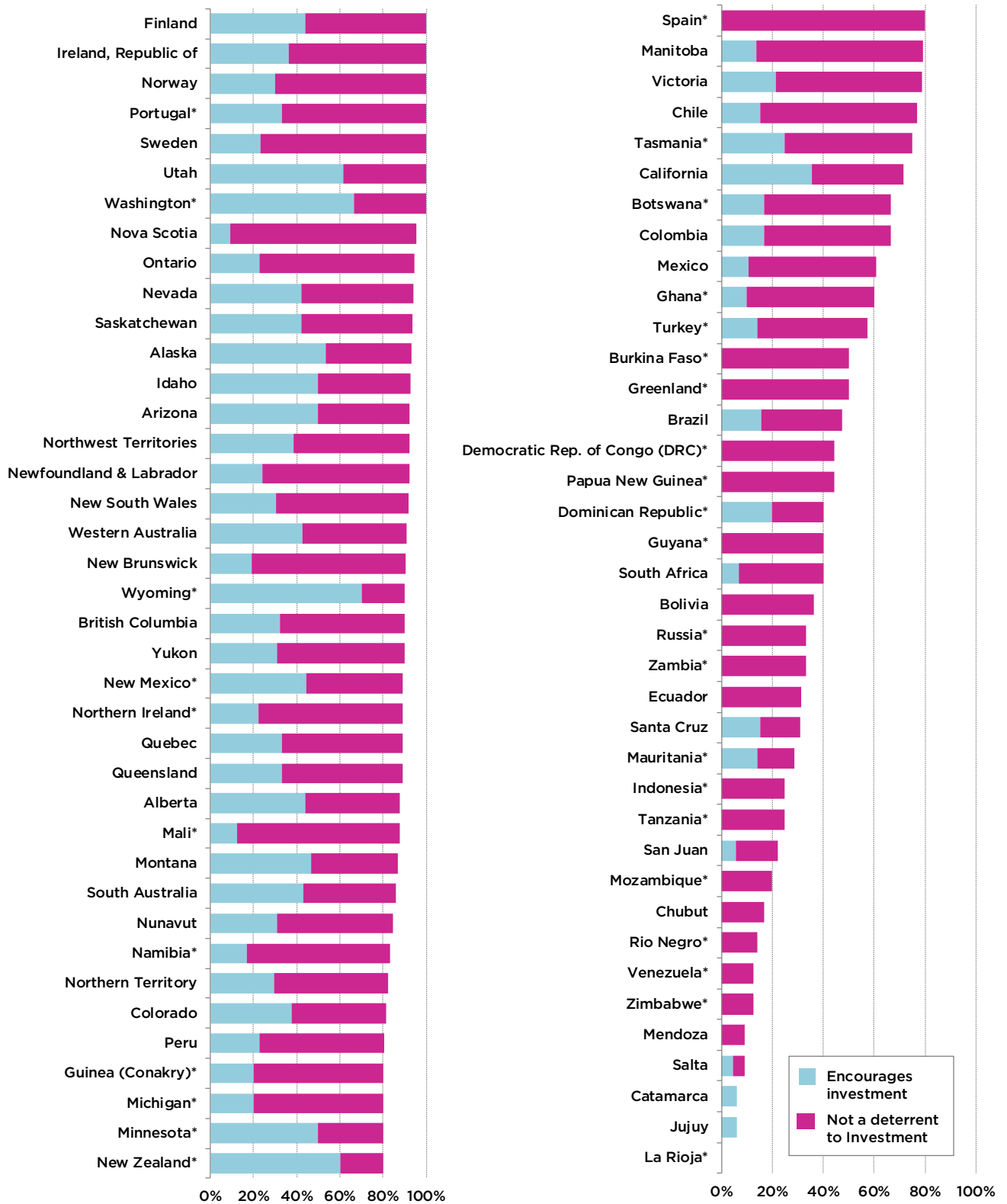
* Between 5 and 9 responses

Figure 24: Socioeconomic Agreements/ Community Development Conditions



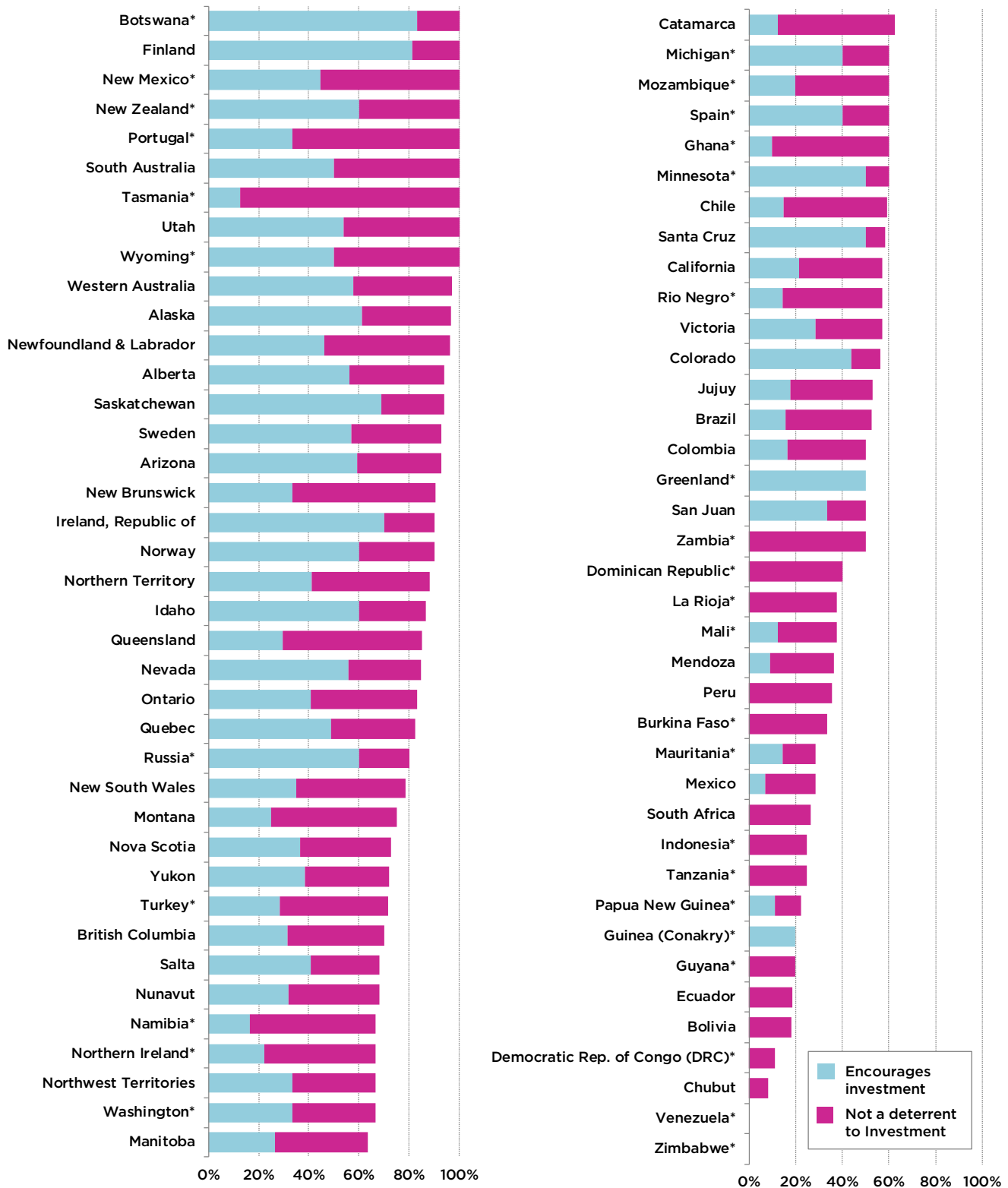
* Between 5 and 9 responses

Figure 25: Trade Barriers



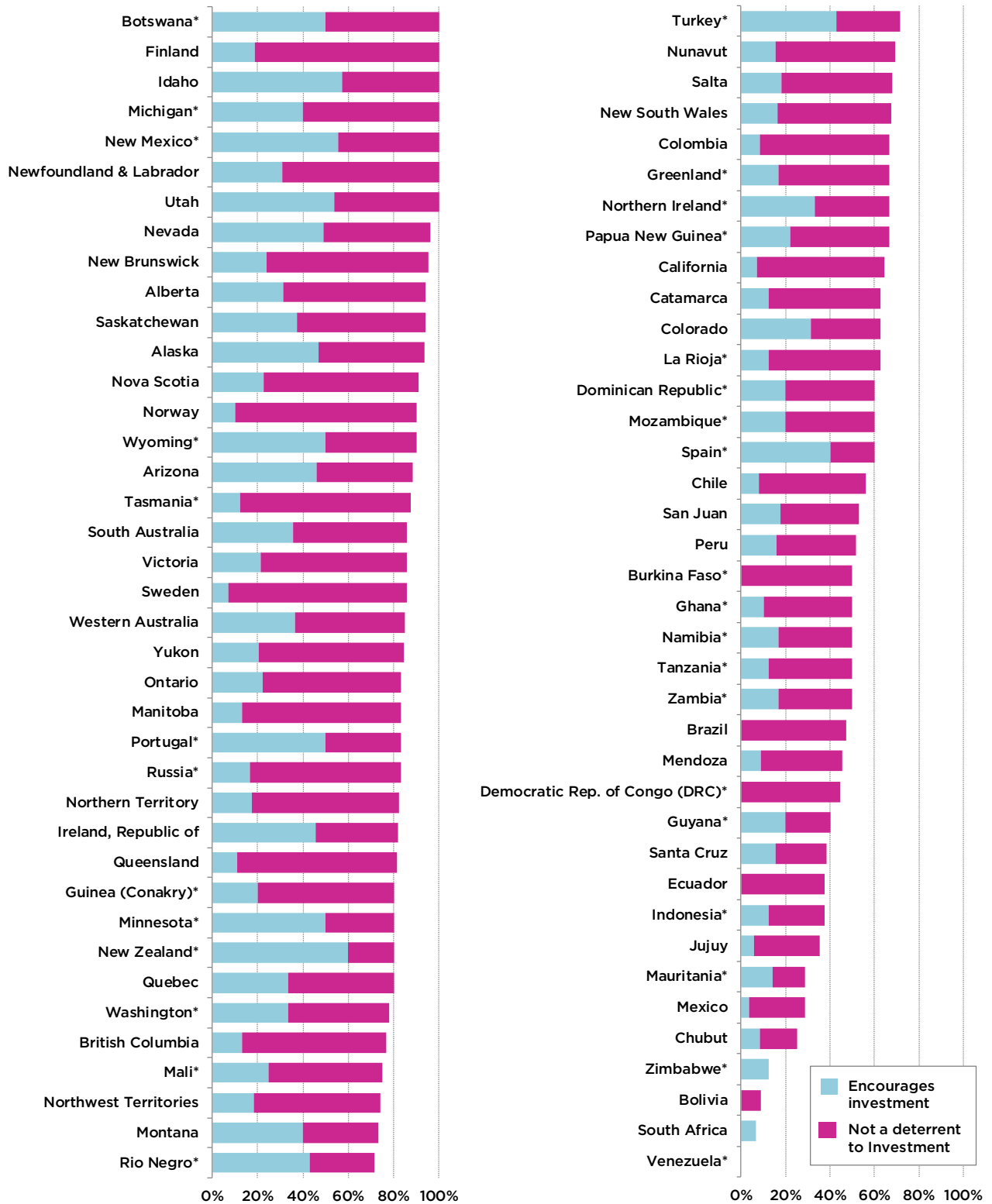
* Between 5 and 9 responses

Figure 26: Political Stability



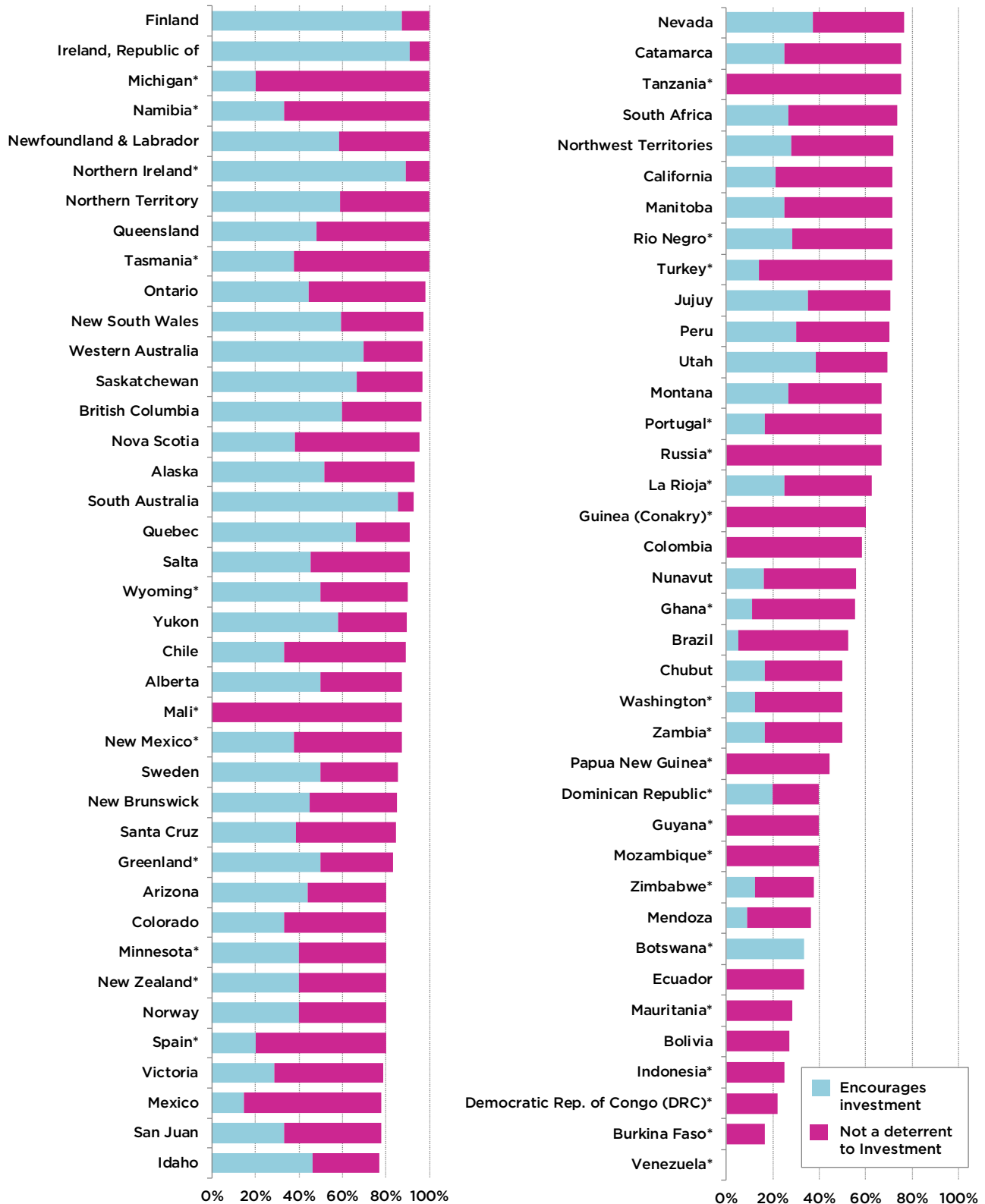
* Between 5 and 9 responses

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



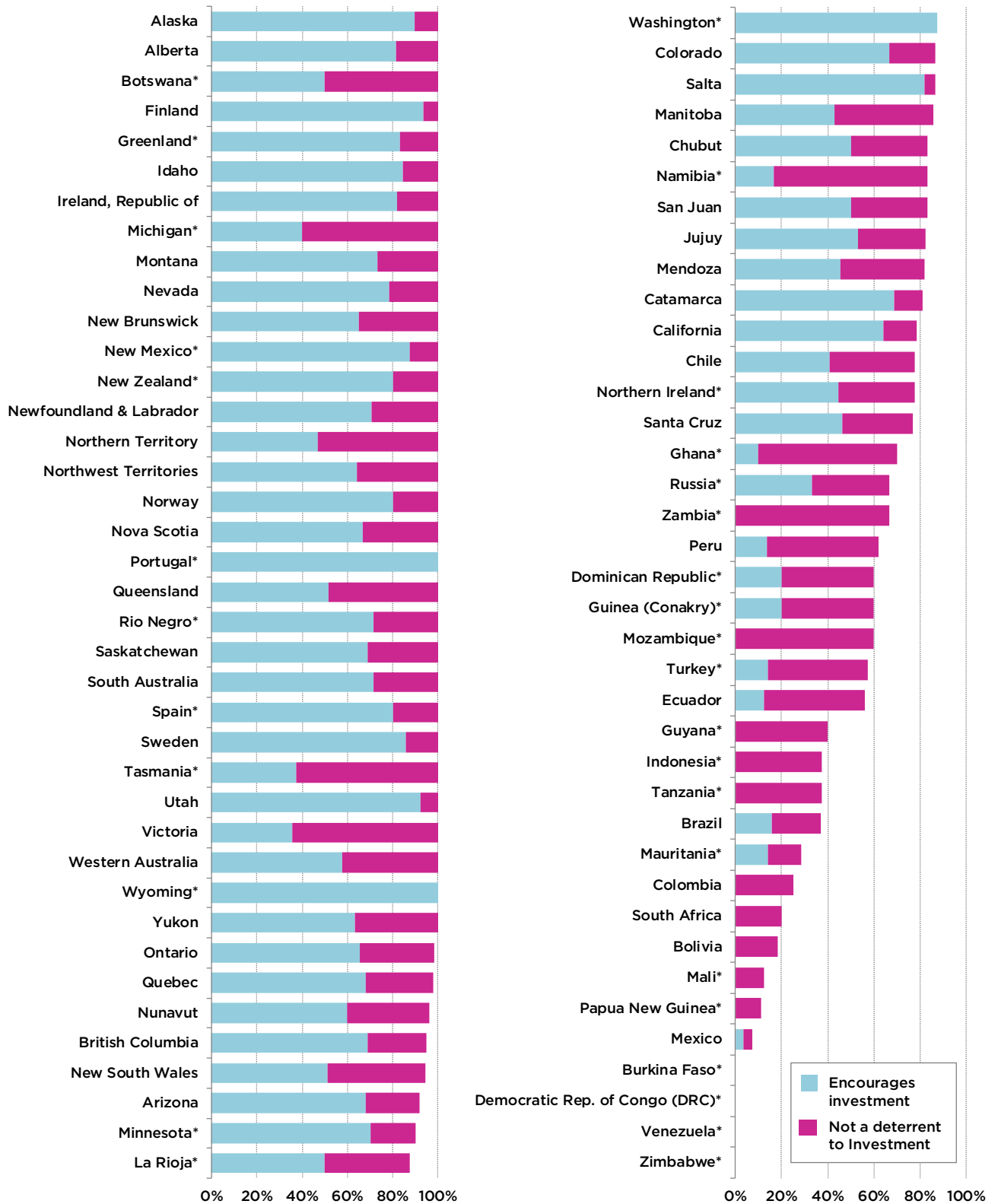
* Between 5 and 9 responses

Figure 28: Geological Database



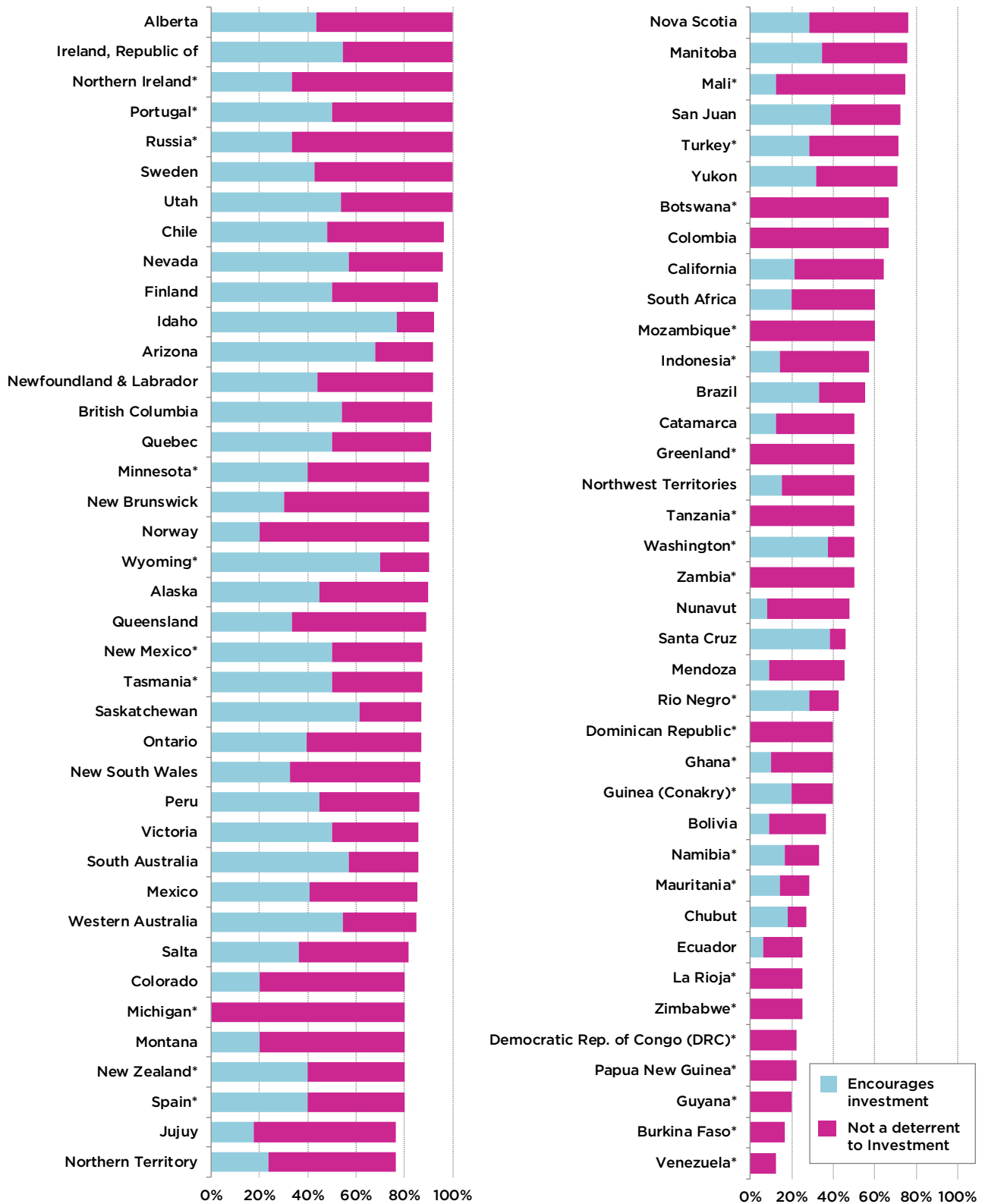
* Between 5 and 9 responses

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



Jairo Yunis

Jairo Yunis is a 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 © 2021 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 2021

ISBN

978-0-88975-639-7

Citation

Yunis, Jairo, and Elmira Aliakbari (2021). *Fraser Institute Annual Survey of Mining Companies 2020*. 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