

Fraser Institute Annual Survey of Mining Companies 2005/2006

Survey Coordinators: Fred McMahon and Michael Cust

About The Fraser Institute

Our vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals.

Founded in 1974, we are an independent research and educational organization with offices in Vancouver, Calgary, and Toronto, and international partners in over 70 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.

Acknowledgements

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 the Prospectors and Developers Association of Canada (PDAC), whose generous support makes this survey possible. We would also like to thank institute Executive Director Michael Walker and Laura Jones for conceptualizing this project eight years ago. We also owe a special debt of gratitude to Liv Fredricksen, who coordinated the mining survey in previous years.

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Survey Information

The Fraser Institute Annual Survey of Mining Companies was sent to 1,435 exploration, development, and mining consulting companies around the world. The survey represents responses from 22.4 percent (322) of those companies. The companies participating in the survey reported exploration spending of US\$ 1.83 billion in 2005 and of US\$ 1.31 billion in 2004. Thus, survey respondents represents a third of total global exploration of US\$5.1 billion in 2005 and a third of US\$3.8 billion in 2004 as reported by the Metals Economics Group.

Executive Summary—2005/2006 Mining Survey

Since 1997, The Fraser Institute has conducted an annual survey of metal mining and exploration companies to assess how mineral endowments and public policy factors such as taxation and regulation affect exploration investment. Survey results represent the opinions of executives and exploration managers in mining and mining consulting companies operating around the world. The survey now covers 64 jurisdictions around the world, on every continent except Antarctica, including sub-national jurisdictions in Canada, Australia, and the United States.

Policy Potential Index: A “Report Card” to Governments on the Attractiveness of their 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 Potential Index serves as a report card to governments on how attractive their policies are from the point of view of an exploration manager.

The Policy Potential Index is a composite index that measures the effects on exploration of government policies including uncertainty concerning the administration, interpretation, and enforcement of existing regulations; environmental regulations; regulatory duplication and inconsistencies; taxation; uncertainty concerning native land claims and protected areas; infrastructure; socioeconomic agreements; political stability; labour issues; geological database; and security.

The Policy Potential Index is based on ranks and normalized to maximum score of 100. A jurisdiction that ranks first in every category would have a score of 100; one that scored last in every category would have a score of 0. Since no nation scored first in all categories or last in all, the highest score is 93.1 (Nevada), while the lowest score is 2.4 (Zimbabwe).

This is the sixth straight year Nevada is rated as having the best mineral policies. The other top-10 policy jurisdictions are Alberta, Manitoba, Chile, Quebec, Mexico, Saskatchewan, Arizona, Ontario, and Utah. For the most part, last year’s top 10 jurisdictions were either in this year’s top 10 or nearly so. Chile had been in second place the year before last and then fallen to 14th spot last year, perhaps due to the controversy over mining royalties in that nation. Chile has rejoined the top 10 in the 4th spot.

Zimbabwe continues to set new records. Its last place score of 7.6 last year was the lowest score recorded in the last four years. This year Zimbabwe’s score fell to 2.4, the lowest in the survey’s history. Other bottom scorers were Papua New Guinea, DRC Congo, Venezuela, the Philippines, Indonesia, Russia, Zambia, Bolivia, and California. The only change in the bottom 10 was the replacement of Wisconsin by Zambia.

Figure I: Policy Potential Index

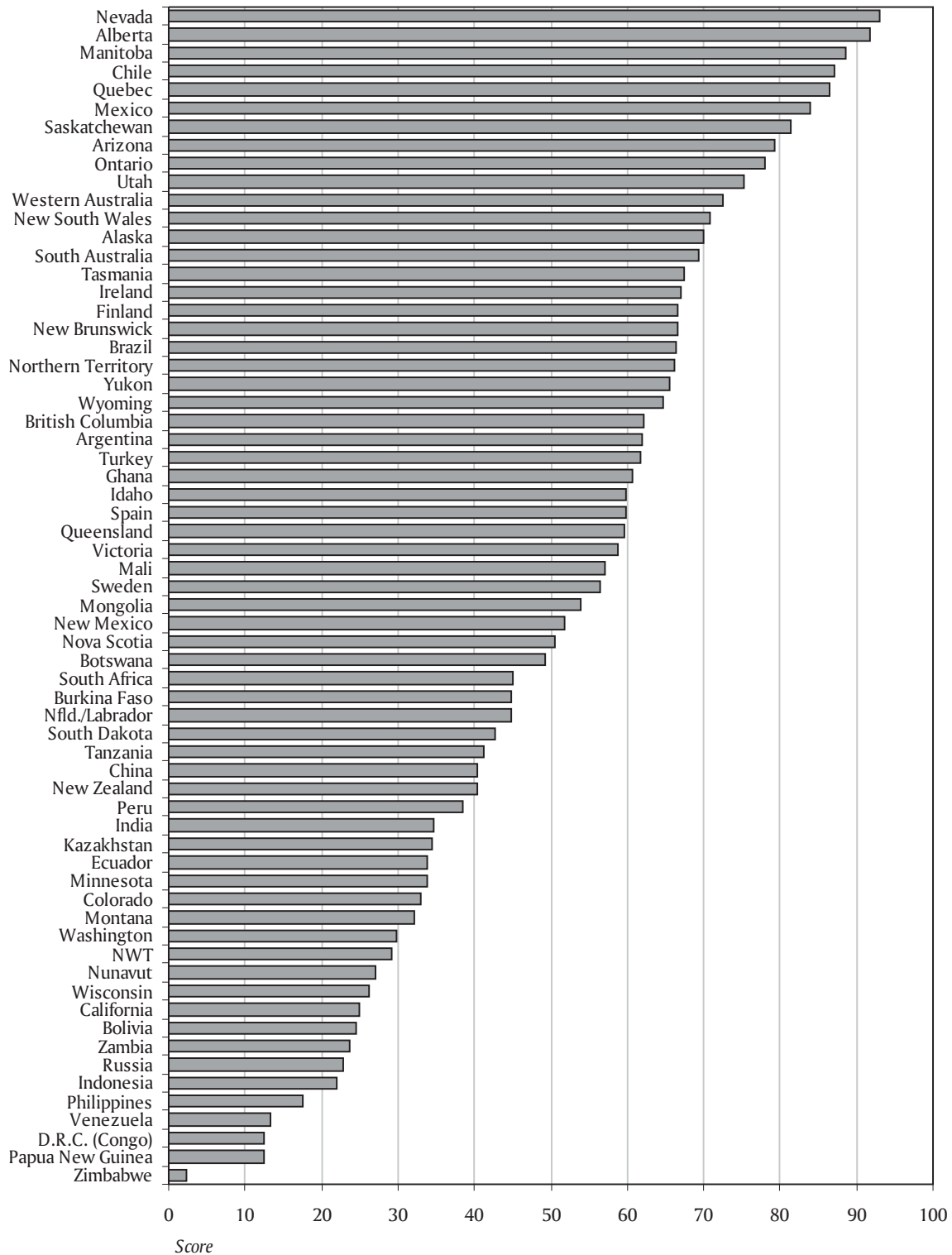


Table I: Policy Potential

		Score				Rank			
		2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002	2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002
Canada	Alberta	92	78	81	87	2/64	9/64	7 /53	1/47
	British Columbia	62	41	30	23	23/64	44/64	45 /53	44 /47
	Manitoba	88	89	82	81	3/64	3/64	6 /53	4/47
	New Brunswick	67	73	73	79	18/64	16/64	13 /53	5/47
	Nfld./Lab.	45	50	43	56	39/64	35/64	34 /53	20 /47
	Nova Scotia	51	57	63	56	35/64	30/64	18 /53	20 /47
	Nunavut	27	36	42	44	53/64	48/64	36 /53	31 /47
	NWT	29	36	38	50	52/64	49/64	38 /53	24 /47
	Ontario	78	78	72	75	9/64	8/64	16 /53	8/47
	Quebec	86	78	80	77	5/64	7/64	8 /53	7/47
	Saskatchewan	81	79	79	74	7/64	5/64	9/53	10/47
	Yukon	66	51	45	48	21/64	34/64	33 /53	27 /47
United States	Alaska	70	52	57	50	13/64	33/64	22 /53	23 /47
	Arizona	79	76	51	71	8/64	11/64	30 /53	11/47
	California	25	27	15	29	55/64	55/64	52 /53	37 /47
	Colorado	33	44	29	49	49/64	41/64	46 /53	24 /47
	Idaho	60	74	54	60	27/64	13/64	27 /53	18 /47
	Minnesota	34	59	32	43	48/64	28/64	44 /53	33 /47
	Montana	32	37	27	46	50/64	47/64	47 /53	29 /47
	Nevada	93	95	89	87	1/64	1/64	1 /53	1/47
	New Mexico	52	59	53	75	34/64	29/64	29 /53	9/47
	South Dakota	43	48	34	66	40/64	37/64	41 /53	16 /47
	Utah	75	81	55	69	10/64	4/64	26 /53	14 /47
	Washington	30	35	26	29	51/64	51/64	48 /53	37 /47
	Wisconsin	26	26	15	26	54/64	56/64	52 /53	40 /47
	Wyoming	65	67	54	58	22/64	21/64	27 /53	19 /47
Australia	Australia	*	*	*	78	*	*	*	6/47
	New South Wales	71	68	83	*	12/64	19/64	3 /53	*
	Northern Territory	66	62	74	*	20/64	25/64	12 /53	*
	Queensland	60	71	79	*	29/64	18/64	9 /53	*
	South Australia	69	74	83	*	14/64	15/64	3 /53	*
	Tasmania	67	77	83	*	15/64	10/64	3 /53	*
	Victoria	59	63	73	*	30/64	23/64	13 /53	*
	Western Australia	73	74	73	*	11/64	12/64	13 /53	*

Table I: Policy Potential

		Score				Rank			
		2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002	2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002
Oceania	Indonesia	22	12	23	19	59/64	62/64	50 /53	47 /47
	New Zealand	40	60	57	42	43/64	27/64	22 /53	35 /47
	Papua New Guinea	12	25	*	*	63/64	57/64	*	*
	Philippines	18	24	20	29	60/64	58/64	51 /53	37 /47
Africa	Botswana	49	35	*	*	36/64	50/64	*	*
	Burkina Faso	45	42	*	*	38/64	43/64	*	*
	DRC (Congo)	13	11	34	*	62/64	63/64	41 /53	*
	Ghana	61	60	47	45	26/64	26/64	32 /53	30 /47
	Mali	57	42	*	*	31/64	42/64	*	*
	South Africa	45	32	43	47	37/64	53/64	34 /53	28 /47
	Tanzania	41	56	*	*	41/64	31/64	*	*
	Zambia	24	38	*	*	57/64	46/64	*	*
	Zimbabwe	2	8	26	20	64/64	64/64	48 /53	46 /47
Latin America	Argentina	62	44	58	54	24/64	40/64	21 /53	22 /47
	Bolivia	24	20	57	70	56/64	60/64	22 /53	13 /47
	Brazil	66	47	79	64	19/64	38/64	9 /53	17 /47
	Chile	87	74	85	85	4/64	14/64	2 /53	3/47
	Ecuador	34	38	*	*	47/64	45/64	*	*
	Mexico	84	71	63	71	6/64	17/64	18 /53	11/47
	Peru	38	46	61	67	44/64	39/64	20 /53	15 /47
	Venezuela	13	21	34	44	61/64	59/64	41 /53	31 /47
Eurasia	China	40	49	50	38	42/64	36/64	31 /53	36 /47
	Finland	67	62	*	*	17/64	24/64	*	*
	India	35	68	42	26	45/64	20/64	36 /53	40 /47
	Ireland	67	94	72	*	16/64	2/64	16 /53	*
	Kazakhstan	35	30	38	24	46/64	54/64	38 /53	43 /47
	Mongolia	54	33	*	*	33/64	52/64	*	*
	Russia	23	17	35	23	58/64	61/64	40 /53	44 /47
	Spain	60	78	*	*	28/64	6/64	*	*
	Sweden	56	64	*	*	32/64	22/64	*	*
	Turkey	62	55	57	*	25/64	32/64	22 /53	*

* = The jurisdiction was not in the survey that year.

British Columbia improves

The Fraser Institute is headquartered in British Columbia and this survey was originally motivated in 1997 by the failure of mining policy in the province. Over the years, the survey showed that British Columbia was either at or near the bottom in mining policy. Several years ago, mining policy in British Columbia began to change. However, this resulted in only slow changes in British Columbia's position in the survey. We argued that miners need to be persuaded of long-term stability before placing their trust in a jurisdiction. Miners spend years pumping money into the ground before they start making money out of the ground. Without stability, a good policy today may become expropriative by the time a mining company begins to make its money back.

The results for British Columbia are entirely consistent with this pattern. Last year's survey was the first time since the survey's inception that British Columbia had not scored in the bottom 10 of the policy potential index, though it remained in the bottom third. In this survey, British Columbia ranked in the top half and is a couple of positions away from the top third. The effects of bad policy takes years to dissipate, and governments around the world should be aware that mistakes today will haunt them in lower investment for years into the future.

Table 1 illustrates the shifts in the relative ranking of the policy potential of the jurisdictions surveyed. The first three columns provide the score each jurisdiction received on the Policy Potential Index (out of a best possible of 100) in this year's survey, and the three surveys before. The next three columns show the relative ranking assigned in each year.

Current Mineral Potential Index

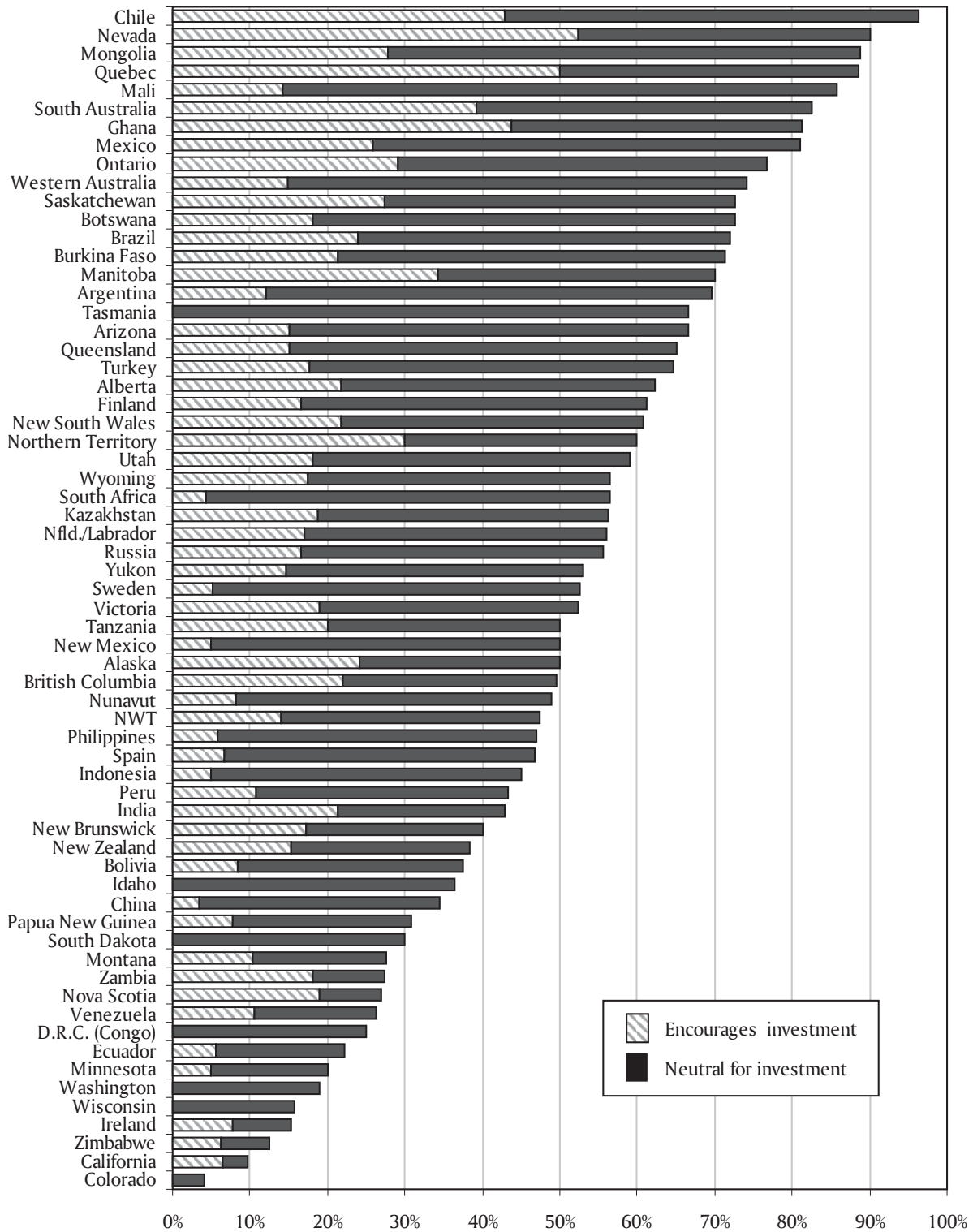
The next figure and table, Current Mineral Potential, is based on respondents' answers to the question about whether or not a jurisdiction's mineral potential under the current policy environment encourages or discourages exploration.

Obviously this takes into account mineral potential, meaning that some jurisdictions, like Alberta, which rank high in the policy potential index but have limited hard mineral potential will rank lower in the "Current Mineral Potential Index," while jurisdictions with a weak policy environment but strong mineral potential will do better. Nonetheless, there is considerable overlap between this index and the Policy Potential Index, perhaps partly because good policy will encourage exploration, which in turn will increase the known mineral potential.

Chile, Nevada, Mongolia, Quebec, Mali, South Australia, Ghana, Mexico, Ontario, and Western Australia hold the top 10 slots. All scored strongly last year and most were in last year's top 10.

Not surprisingly, the jurisdictions at the bottom of the list are also consistent with last year's poor performers—and in most cases with poor performers in the Policy Potential Index. Colorado comes in last and is joined by California, Zimbabwe, Ireland, Wisconsin, Washington, Minnesota, Ecuador, DRC Congo, and Venezuela. These jurisdictions all scored near the bottom last year, with the partial exception of Ireland (39 out of 64 last year), which has generally fallen in this survey from last year's.

**Figure 2: Current Mineral Potential—Assuming Current Regulations/
Land Use Restrictions**



Percent who consider this factor a deterrent to investment

**Table 2: Current Mineral Potential: Assuming Current Regulations/
Land Use Restrictions**

		Score				Rank			
		2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002	2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002
Canada	Alberta	0.62	0.55	0.49	0.48	21/64	36/64	37 /53	25 /47
	British Columbia	0.50	0.49	0.49	0.39	37/64	48/64	38 /53	31 /47
	Manitoba	0.70	0.79	0.82	0.75	15/64	14/64	10 /53	10/47
	New Brunswick	0.40	0.57	0.58	0.50	45/64	35/64	28 /53	23 /47
	Nfld./Lab.	0.56	0.61	0.68	0.52	29/64	32/64	16 /53	20 /47
	Nova Scotia	0.27	0.49	0.46	0.31	54/64	49/64	41 /53	11/47
	Nunavut	0.49	0.70	0.63	0.77	38/64	21/64	22 /53	40 /47
	NWT	0.47	0.62	0.67	0.73	39/64	31/64	18 /53	8/47
	Ontario	0.77	0.82	0.87	0.86	9/64	10/64	6 /53	4/47
	Quebec	0.89	0.89	0.91	0.90	4/64	3/64	3 /53	3/47
	Saskatchewan	0.73	0.62	0.65	0.63	12/64	30/64	21 /53	15 /47
Yukon	0.53	0.47	0.67	0.61	31/64	52/64	19 /53	16 /47	
United States	Alaska	0.50	0.43	0.57	0.71	34/64	55/64	29 /53	12/47
	Arizona	0.67	0.48	0.47	0.50	17/64	50/64	40 /53	22 /47
	California	0.10	0.16	0.11	0.14	63/64	64/64	53 /53	46 /47
	Colorado	0.04	0.24	0.19	0.28	64/64	60/64	50 /53	43 /47
	Idaho	0.36	0.53	0.29	0.41	48/64	41/64	47 /53	28 /47
	Minnesota	0.20	0.29	0.31	0.23	58/64	58/64	46 /53	44 /47
	Montana	0.28	0.22	0.24	0.31	52/64	62/64	49 /53	42 /47
	Nevada	0.90	0.96	0.90	0.86	2/64	1/64	4 /53	5/47
	New Mexico	0.50	0.50	0.41	0.48	35/64	47/64	43 /53	26 /47
	South Dakota	0.30	0.36	0.38	0.33	51/64	57/64	45 /53	36 /47
	Utah	0.59	0.64	0.57	0.50	25/64	26/64	31 /53	24 /47
	Washington	0.19	0.21	0.16	0.16	59/64	63/64	51 /53	45 /47
	Wisconsin	0.16	0.25	0.14	0.10	60/64	59/64	52 /53	47 /47
Wyoming	0.57	0.58	0.50	0.31	26/64	34/64	36 /53	41 /47	
Australia	Australia	*	*	*	0.92	*	*	*	2/47
	New South Wales	0.61	0.79	0.72	*	23/64	13/64	15 /53	*
	Northern Territory	0.60	0.84	0.85	*	24/64	8/64	8 /53	*
	Queensland	0.65	0.81	0.89	*	19/64	11/64	5 /53	*
	South Australia	0.83	0.76	0.77	*	6/64	18/64	12 /53	*
	Tasmania	0.67	0.86	0.66	*	18/64	6/64	20 /53	*
	Victoria	0.52	0.68	0.59	*	33/64	23/64	26 /53	*
	Western Australia	0.74	0.87	0.94	*	10/64	4/64	1 /53	*

**Table 2: Current Mineral Potential: Assuming Current Regulations/
Land Use Restrictions**

		Score				Rank			
		2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002	2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002
Oceania	Indonesia	0.45	0.53	0.55	0.33	42/64	43/64	33 /53	35 /47
	New Zealand	0.38	0.47	0.57	0.35	46/64	53/64	30 /53	34 /47
	Papua New Guinea	0.31	0.60	*	0.47	50/64	33/64	*	27 /47
	Philippines	0.47	0.44	0.40	0.37	40/64	54/64	44 /53	32 /47
Africa	Botswana	0.73	0.67	*	*	11/64	25/64	*	*
	Burkina Faso	0.71	0.54	*	*	14/64	38/64	*	*
	DRC (Congo)	0.25	0.50	0.56	*	56/64	46/64	32 /53	*
	Ghana	0.81	0.76	0.86	0.56	7/64	17/64	7 /53	18 /47
	Mali	0.86	0.80	*	*	5/64	12/64	*	*
	South Africa	0.57	0.54	0.59	0.60	27/64	37/64	25 /53	17 /47
	Tanzania	0.50	0.77	*	*	36/64	16/64	*	*
	Zambia	0.27	0.53	*	*	53/64	40/64	*	*
Zimbabwe	0.13	0.22	0.44	0.31	62/64	61/64	42 /53	39 /47	
Latin America	Argentina	0.70	0.63	0.75	0.70	16/64	29/64	13 /53	13 /47
	Bolivia	0.38	0.48	0.67	0.64	47/64	51/64	17 /53	14 /47
	Brazil	0.72	0.83	0.78	0.77	13/64	9/64	11 /53	7/47
	Chile	0.96	0.94	0.92	0.94	1/64	2/64	2 /53	1/47
	Ecuador	0.22	0.52	*	0.51	57/64	44/64	*	21 /47
	Mexico	0.81	0.87	0.75	0.76	8/64	5/64	14 /53	9/47
	Peru	0.43	0.74	0.83	0.78	43/64	19/64	9 /53	6/47
	Venezuela	0.26	0.42	0.48	0.41	55/64	56/64	39 /53	29 /47
Eurasia	China	0.34	0.72	0.61	0.54	49/64	20/64	23 /53	19 /47
	Finland	0.61	0.84	*	*	22/64	7/64	*	*
	India	0.43	0.50	0.24	0.31	44/64	45/64	48 /53	38 /47
	Ireland	0.15	0.54	0.58	*	61/64	39/64	27 /53	*
	Kazakhstan	0.56	0.64	0.59	0.41	28/64	27/64	24 /53	30 /47
	Mongolia	0.89	0.78	*	*	3/64	15/64	*	*
	Russia	0.56	0.53	0.50	0.37	30/64	42/64	34 /53	33 /47
	Spain	0.47	0.69	*	*	41/64	22/64	*	*
	Sweden	0.53	0.68	*	*	32/64	24/64	*	*
	Turkey	0.65	0.63	0.50	*	20/64	28/64	35 /53	*

* = The jurisdiction was not in the survey that year.

Table 2 provides more precise information and the recent historical record.

Best Practices Mineral Potential Index

Figure 3 shows the mineral potential of jurisdictions, assuming their policies are based on “best practices.” In other words, this figure represents, in a sense, a jurisdiction’s “pure” mineral potential since it assumes a “best practices” policy regime. Thus, figure 3 reveals some stark differences with the first two figures. Indonesia, for example, has the third worst policy environment, but would rank in the world’s top 10 in investment attractiveness under a “best policy” regime.

From a purely mineral perspective, the most appealing jurisdictions are Nevada, Nunavut, Canada’s Northwest Territories, Indonesia, Papua New Guinea, DRC Congo, Ghana, Mali, Peru, and Russia. All scored highly last year, except for Ghana and Mali, which were in the middle of the pack. The least appealing jurisdictions are Nova Scotia, Alberta, Finland, Ireland, Wisconsin, New Brunswick, New Zealand, Sweden, Tasmania, and Spain. Not surprisingly, with one exception, there is a large correspondence between these rankings and rankings in previous years. Curiously Tasmania scored at the top of the heap last year, but as noted (see footnote) fewer than 10 respondents answered the question on Tasmania, possibly skewing the result. We indicate in all tables and charts when a jurisdiction received fewer than 10 or five responses.

Table 3 provides more precise information and the recent historical record.

Room for improvement

Figure 4 is one of the most revealing in this study. It subtracts each jurisdiction’s score for mineral potential under “best practices” from mineral potential under “current” regulations. To understand the meaning of this figure, consider Colorado. When asked about Colorado’s mineral potential under “current” regulations, only 4 percent of respondents said its potential was either neutral or encouraging. Under a “best practices” regulatory regime, where managers can focus on pure mineral potential rather than government-related problems, 85 percent of respondents said Colorado’s mineral potential was either neutral or attractive.

Thus Colorado’s score in the “Room for Improvement” category is 80 percent. (The numbers do not add to 100 percent due to rounding.) This is the percentage of respondents who changed their view of Colorado’s mineral potential from favourable or neutral under best practices regulations to a negative decision (a deterrent to investment or bad enough to veto investment) under Colorado’s current regulatory environment.

The greater the score in figure 4, the greater the gap between “current” and “best practices” mineral potential and the greater the “room for improvement.”

Sadly, many of the jurisdictions with the greatest room to improve are developing countries, where additional investment, and job, wealth, and capital creation are most needed. This includes the Zim-

Figure 3: Policy/Mineral Potential Assuming No Land Use Restrictions in Place and Assuming Industry “Best Practices”

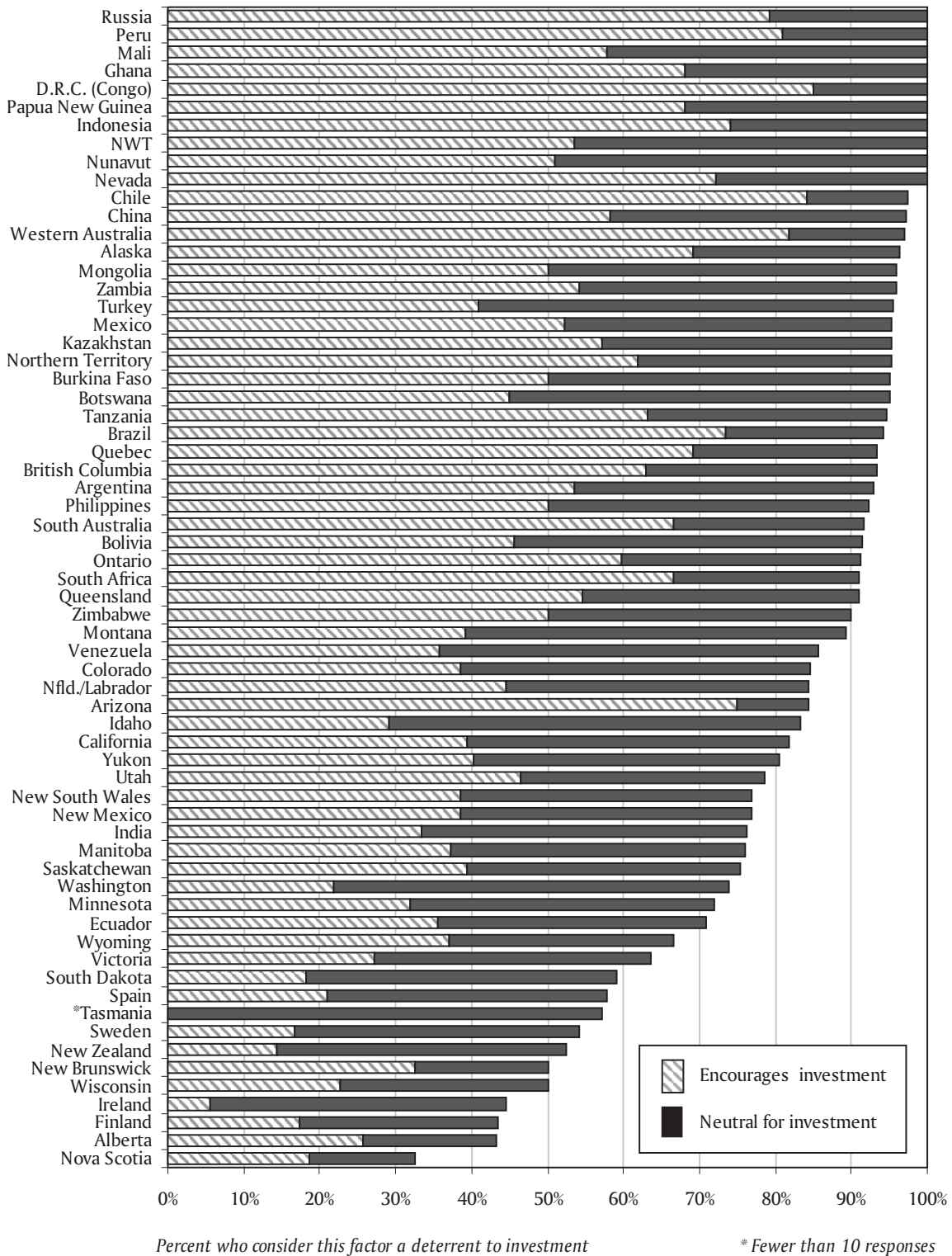


Table 3: Policy/Mineral Potential: Assuming No Land Use Restrictions in Place and Assuming Industry “Best Practices”

		Score				Rank			
		2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002	2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002
Canada	Alberta	0.43	0.48	0.49	0.49	63/64	63/64	48/53	45/47
	British Columbia	0.93	0.95	0.92	0.87	26/64	12/64	23/53	20/47
	Manitoba	0.76	0.75	0.89	0.87	47/64	43/64	25/53	19/47
	New Brunswick	0.50	0.51	0.64	0.63	60/64	61/64	42/53	38/47
	Nfld./Lab.	0.84	0.78	0.92	0.78	38/64	37/64	22/53	29/47
	Nova Scotia	0.33	0.54	0.37	0.32	64/64	60/64	53/53	47/47
	Nunavut	1.00	0.96	0.95	0.94	1/64	10/64	14/53	12/47
	NWT	1.00	0.98	0.95	0.96	1/64	4/64	13/53	8/47
	Ontario	0.91	0.92	0.95	0.95	31/64	17/64	10/53	10/47
	Quebec	0.93	0.93	0.96	0.98	25/64	14/64	8/53	4/47
	Saskatchewan	0.75	0.69	0.81	0.75	48/64	51/64	33/53	34/47
	Yukon	0.81	0.89	0.94	0.87	42/64	29/64	16/53	18/47
	United States	Alaska	0.96	0.98	0.91	0.97	14/64	3/64	24/53
Arizona		0.84	0.90	0.68	0.77	39/64	24/64	39/53	30/47
California		0.82	0.74	0.54	0.82	41/64	45/64	46/53	27/47
Colorado		0.85	0.77	0.48	0.85	37/64	38/64	49/53	23/47
Idaho		0.83	0.83	0.74	0.68	40/64	34/64	36/53	36/47
Minnesota		0.72	0.55	0.64	0.53	50/64	59/64	41/53	42/47
Montana		0.89	0.88	0.62	0.84	35/64	30/64	44/53	24/47
Nevada		1.00	0.98	0.92	0.96	1/64	2/64	21/53	9/47
New Mexico		0.77	0.72	0.63	0.61	44/64	47/64	43/53	40/47
South Dakota		0.59	0.59	0.57	0.62	54/64	54/64	45/53	39/47
Utah		0.79	0.74	0.73	0.70	43/64	44/64	38/53	35/47
Washington		0.74	0.59	0.45	0.49	49/64	56/64	51/53	46/47
Wisconsin		0.50	0.48	0.54	0.51	59/64	62/64	47/53	44/47
Wyoming		0.67	0.59	0.65	0.55	52/64	57/64	40/53	41/47
Australia	Australia	*	*	*	0.94	*	*	*	11/47
	New South Wales	0.77	0.91	0.88	*	45/64	20/64	29/53	*
	Northern Territory	0.95	0.95	0.95	*	19/64	11/64	11/53	*
	Queensland	0.91	0.96	0.98	*	32/64	8/64	3/53	*
	South Australia	0.92	0.91	0.87	*	29/64	22/64	30/53	*
	Tasmania	0.57	1.00	0.81	*	56/64	1/64	34/53	*
	Victoria	0.64	0.68	0.74	*	53/64	52/64	37/53	*
	Western Australia	0.97	0.97	1.00	*	13/64	5/64	1/53	*

Table 3: Policy/Mineral Potential: Assuming No Land Use Restrictions in Place and Assuming Industry “Best Practices”

		Score				Rank			
		2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002	2005/ 2006	2005/ 2004	2004/ 2003	2003/ 2002
Oceania	Indonesia	1.00	0.97	0.97	0.89	1/64	6/64	6/53	17/47
	New Zealand	0.52	0.58	0.46	0.53	58/64	58/64	50/53	43/47
	Papua New Guinea	1.00	0.96	*	0.83	1/64	9/64	*	26/47
	Philippines	0.92	0.89	0.88	0.92	28/64	28/64	26/53	14/47
Africa	Botswana	0.95	0.84	*	*	21/64	31/64	*	*
	Burkina Faso	0.95	0.70	*	*	22/64	50/64	*	*
	DRC (Congo)	1.00	0.90	0.88	*	1/64	26/64	27/53	*
	Ghana	1.00	0.83	0.94	0.84	1/64	33/64	15/53	25/47
	Mali	1.00	0.83	*	*	1/64	32/64	*	*
	South Africa	0.91	0.91	0.93	0.93	33/64	23/64	19/53	13/47
	Tanzania	0.95	0.81	*	*	23/64	35/64	*	*
	Zambia	0.96	0.91	*	*	15/64	21/64	*	*
Zimbabwe	0.90	0.60	0.83	0.76	34/64	53/64	31/53	33/47	
Latin America	Argentina	0.93	0.93	0.95	1.00	27/64	16/64	12/53	1/47
	Bolivia	0.91	0.72	0.88	0.86	30/64	46/64	28/53	21/47
	Brazil	0.94	0.90	0.98	0.98	24/64	25/64	5/53	3/47
	Chile	0.97	0.93	0.96	0.98	11/64	13/64	9/53	2/47
	Ecuador	0.71	0.77	*	0.77	51/64	39/64	*	31/47
	Mexico	0.95	0.91	0.93	0.91	18/64	19/64	18/53	15/47
	Peru	1.00	0.96	0.98	0.97	1/64	7/64	4/53	6/47
	Venezuela	0.86	0.76	0.81	0.82	36/64	42/64	32/53	28/47
Eurasia	China	0.97	0.91	1.00	0.85	12/64	18/64	1/53	22/47
	Finland	0.43	0.76	*	*	62/64	41/64	*	*
	India	0.76	0.70	0.76	0.65	46/64	49/64	35/53	37/47
	Ireland	0.44	0.38	0.42	*	61/64	64/64	52/53	*
	Kazakhstan	0.95	0.90	0.94	0.90	20/64	27/64	17/53	16/47
	Mongolia	0.96	0.76	*	*	16/64	40/64	*	*
	Russia	1.00	0.93	0.97	0.96	1/64	15/64	7/53	7/47
	Spain	0.58	0.59	*	*	55/64	55/64	*	*
	Sweden	0.54	0.70	*	*	57/64	48/64	*	*
	Turkey	0.95	0.81	0.93	*	17/64	36/64	20/53	*

* = The jurisdiction was not in the survey that year.

babwe, DRC Congo, Papua New Guinea, Zambia, China, Venezuela, and Peru. However, some of the worst performers are from the developed world and include Colorado, California, and Montana.

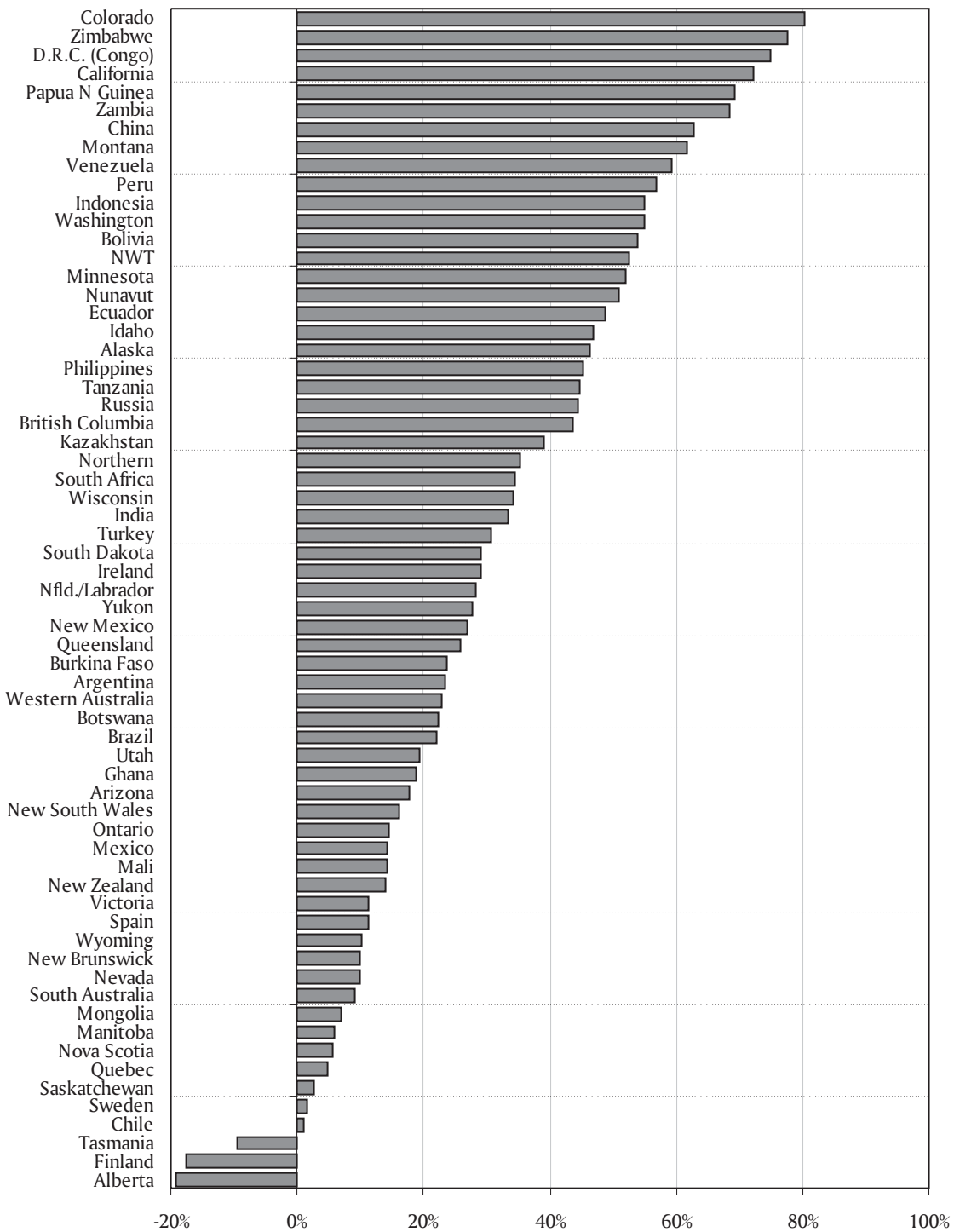
Survey results always contain a few anomalies. People often hold conflicting beliefs, which show up as apparent contradictions in survey data. Interestingly, a few jurisdictions receive negative scores in figure 4—in other words, they appear to be more attractive under “current” regulations than under “best practices.” For example, fewer respondents consider Alberta an attractive place to explore under “best practices” regulations than under “current” regulations. It may be that some in the industry consider Alberta’s regulations better than “best practices” regulations or that, for the “current” regulations question, respondents are simply rewarding Alberta for good regulations.

However, a comparative factor may be implicitly at play here. Alberta is not an intrinsically attractive place to mine, but has its attractiveness improved by a good regulatory environment. Now, imagine that every jurisdiction in the world shifts to best practices. Overall, the world becomes a more attractive place to mine. Some jurisdictions become considerably more attractive, such as Colorado or Zimbabwe. But, at the same time, in a world where all jurisdictions become “best practice,” the relative attractiveness of other jurisdictions, like Alberta, falls. In other words, a miner may now be attracted to Alberta because of a good policy environment, but if Colorado, Zimbabwe, and Russia all featured a regulatory environment as good as Alberta, then the relative attractiveness of Alberta would fall, resulting in a negative movement for Alberta in a “best practices” world.

A caveat

This survey captures miners’ general knowledge and specific knowledge. A miner may give an otherwise high-scoring jurisdiction a low mark because of his or her individual experience with a problem. This adds valuable information to the survey. Because every miner faces unique circumstances, we are very reluctant to remove any responses from the survey, save for exceptional circumstances. For this survey, one respondent appeared to misunderstand the question on native land claims. That respondent’s answers, and only that single respondent’s answers, were deleted from the survey.

Figure 4: Room to Improve



Difference between Policy/Mineral and Mineral Indexes

Note: A high positive score indicates a jurisdiction is distant from "best practices" policies

Survey Background

The idea to survey mining companies about how government policies and mineral potential affect new exploration investment came from a Fraser Institute conference on mining held in Vancouver, Canada, in the fall of 1996. The comments and feedback from the conference showed that the mining industry was dissatisfied with government policies that deterred exploration investment within the mineral-rich province of British Columbia. Since many regions around the world have attractive geology and competitive policies, and given the increasing opportunities to pursue business ventures globally, many conference participants expressed the view that it was easier to explore in jurisdictions with attractive policies than to fight for better policies elsewhere. The Fraser Institute launched the survey to examine which jurisdictions are providing the most favourable business climates for the industry, and in which areas certain jurisdictions need to improve.

The effects of increasingly onerous, seemingly capricious regulations, uncertainty about land use, higher levels of taxation, and other policies that interfere with market conditions are rarely felt immediately, as they are more likely to deter companies looking for new projects than they are to shut down existing operations. We felt that the lack of accountability that stems from 1) the lag time between when policy changes are implemented and when economic activity is impeded and job losses occur and 2) industry's reluctance to be publicly critical of politicians and civil servants, needed to be addressed.

In order to address this problem and assess how various public policy factors influence companies' decisions to invest in different regions, The Fraser Institute began conducting an anonymous survey of senior and junior companies in 1997. The first survey included all Canadian provinces and territories.

The second survey, conducted in 1998, added 17 US states, Mexico, and for comparison with North American jurisdictions, Chile. The third survey, conducted in 1999, was further expanded to include Argentina, Australia, Peru, and Nunavut. The survey now includes 64 jurisdictions, from all continents except Antarctica.

We add countries to the list based on the interests expressed by survey respondents, and have noticed that these interests are becoming increasingly global. In recognition of the fact that jurisdictions are no longer competing only with the policy climates of their immediate neighbours, but with jurisdictions around the world, we think it is important to continue publishing and publicizing the results of the survey annually, and to make the results available and accessible to an increasingly global audience.

Figure 17: Composite Policy and Mineral

This is a composite index that combines both the policy potential index and results from the “best practices” question, which in effect ranks a jurisdiction's “pure” mineral potential, given “best prac-

tices”. This year, as in other years, the index was weighted 40 percent by policy and 60 percent by mineral potential. These ratios are determined by a survey question asking respondents to rate the relative importance of each factor. To some extent we have de-emphasized the importance of the policy/mineral potential index in recent years, moving it from the executive summary to the body of the report. We believe that the best measure of investment attractiveness is provided by our direct question on “current” mineral potential (see figure 2). This is partly because the 60/40 relationship is probably not stable at the extremes. 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 regardless of mineral potential. In this case, mineral potential—far from having a 60 percent weight—might carry very little weight. Nonetheless, we believe the composite index provides some insights and have maintained it for that reason.

A further note about the construction of Figure 17 is required. To construct Figure 3 on “Best Practices,” we include “neutral for investment” and “encourages investment” responses. However, in constructing Figure 17, we use only the “encourages” responses. The appendix provides the raw data for the construction.