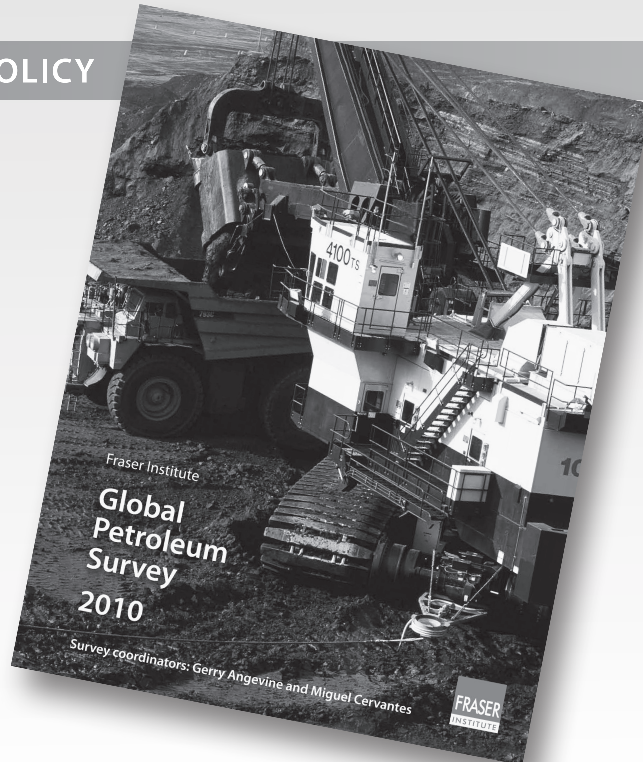
Highlights of the 2010 Global Petroleum Survey



Gerry Angevine

For the second year in a row, Manitoba has been named the most attractive Canadian province for petroleum investment, according to the Fraser Institute's *Global Petroleum Survey 2010*. Manitoba was the only Canadian jurisdiction to make it into the top 10—in North America and worldwide. Across the border, South Dakota, Texas, and Illinois were rated the most attractive jurisdictions in the United States—and the world as a whole—for petroleum investment.

The petroleum survey identifies the provinces, states, and countries with the greatest barriers to investment in oil and gas exploration and production. The survey provides useful information for policy makers who are considering reforms that would improve the investment environment of their jurisdiction.

The 2010 survey was undertaken between February and April 2010.[1] The names of potential respondents were taken from publicly available membership lists of trade associations. A number of Canadian trade commissioners abroad also provided the names of companies and individuals in their host countries. In addition, some industry associations assisted by providing contact information for individuals with member companies. A total of 645 managers and executives from 364 upstream petroleum companies participated, providing sufficient data to evaluate 133 jurisdictions.[2] The companies represented in the survey account for more than 60% of projected spending on petroleum exploration and production by international oil companies in 2009 (International Energy Agency, 2009).

The survey questionnaire provided a list of 144 jurisdictions that respondents could evaluate, including most Canadian provinces and territories, many US states (and the Atlantic, Pacific, Gulf Coast, and Alaska offshore regions), all seven Australian states and territories, the Australian offshore, the Timor Gap, and other countries with petroleum production capacity. Mexico and other countries where investment in upstream petroleum exploration and development is mostly confined to government-owned facilities, thereby eliminating or severely reducing opportunities for international oil companies, were excluded. Respondents were advised to complete the survey only with regard to jurisdictions with which they were familiar.

For each of 17 factors judged by the survey coordinators to be important determinants of investment decisions, respondents were asked to choose one of the following five responses as best describing each jurisdiction that they chose to evaluate:

1. Encourages investment
2. Is not a deterrent to investment
3. Is a mild deterrent to investment
4. Is a strong deterrent to investment
5. Would not invest due to this criterion

The 17 factors that were evaluated for each jurisdiction can be found in table 1.

For each jurisdiction, scores were assigned to each factor

Table 1: 17 factors that influence company decisions to invest in various jurisdictions

1. Government royalty payments, production shares, and licensing fees
2. Taxation in general, including personal, corporate, payroll, and capital taxes, and the complexity of tax compliance
3. Uncertainty concerning the basis for and/or anticipated changes to environmental regulations
4. Uncertainty regarding the administration, interpretation, and enforcement of existing regulations, and concern with the frequency of changes to regulations
5. The cost of regulatory compliance in relation to applications, public hearings, etc.
6. Regulatory duplication and inconsistencies
7. Legal system fairness and efficiency
8. Uncertainty over what areas are to be protected as wilderness or parks, marine life preserves, or archeological sites
9. Socio-economic agreement/community development conditions, including local purchasing and processing requirements, and agreements for supplying local infrastructure
10. Trade barriers and restrictions on profit repatriation
11. Labour regulations, employment agreements, and local hiring requirements
12. Quality of infrastructure, including access to roads, power availability, etc.
13. Quality and ease of access to geological information
14. Labour availability and mobility
15. Disputed land claims
16. Political stability
17. Security of personnel and assets

Source: Angevine and Cervantes, 2010.

according to the proportion of the three most negative kinds of responses (i.e., "mild" or "strong deterrent to investment" or "would not invest") to the total number of responses. The greater the proportion of negative responses garnered by a jurisdiction for a given factor, the greater the barrier to investment that the factor was seen to pose. Jurisdictions with the lowest scores were assumed to pose fewer investment barriers and, therefore, ranked higher in terms of their attractiveness for investment.

The comparisons discussed in this article are based on index values derived by averaging the scores earned by each jurisdiction for each of the 17 factors. This "All-Inclusive Index" provides a comprehensive tally of the investment barriers within each jurisdiction. The complete results of the *Global Petroleum Survey 2010* are available at www.fraserinstitute.org.

Results for Canada and the United States

A total of 38 North American jurisdictions were ranked this year—28 American and 10 Canadian. This is five fewer than in 2009 when we had sufficient data to rank 43 jurisdictions—32 American and 11 Canadian. Table 2 provides the 2010 and 2009 scores for the 38 jurisdictions in order of their 2010 ranking.

One Canadian jurisdiction, Manitoba, ranked among the top 10 jurisdictions both in North America and worldwide this year; none did so last year. The nine other Canadian jurisdictions were among the bottom two-thirds of the 38 North American jurisdictions.

In addition to Manitoba, all of the other Canadian jurisdictions that were evaluated this year, except Quebec, improved in the overall rankings (of 133 jurisdictions), relative to their rankings last year (when 143 jurisdictions were rated).

Alberta's score (table 2) is based on data gathered after the provincial government's announcement on March 11, 2010, that it is planning to lower oil and gas royalties substantially at the beginning of 2011. Alberta's score this year is obviously an improvement over their score last year. That the province did not move up further in the rankings suggests that the New Royalty Framework, which came into effect on January 1, 2009, and subsequent adjustments,[3] may have damaged Alberta's attractiveness as a reliable place in which to invest. Moreover, the full details of the planned royalty reductions that were announced in March, as

Table 2: Canada-US All-Inclusive scores and rankings, 2009, 2010

	Jurisdiction	2010 Score	2009 Score	2010 Rank (of 133)	2009 Rank (of 143)	Change in score
1	South Dakota	8.8	10.9	1	7	2.1
2	Texas	9.5	11.0	2	8	1.4
3	Illinois	9.7	15.3	3	12	5.6
4	Wyoming	10.3	17.4	4	16	7.1
5	Mississippi	11.6	9.9	6	5	-1.8
6	Utah	12.0	15.5	7	13	3.4
7	Manitoba	12.5	21.0	8	21	8.5
8	Oklahoma	13.0	11.3	9	9	-1.7
9	Alabama	13.4	8.9	10	2	-4.5
10	Offshore–Gulf of Mexico	13.4	16.0	11	14	2.5
11	Ohio	13.8	24.1	12	36	10.3
12	Arkansas	15.6	6.7	13	1	-8.9
13	Louisiana	16.6	16.2	15	15	-0.4
14	Saskatchewan	17.6	25.0	17	38	7.4
15	Kansas	18.8	8.9	19	3	-9.9
16	North Dakota	19.6	22.4	24	28	2.7
17	Ontario	21.2	33.3	28	60	12.1
18	Montana	24.3	25.7	35	41	1.5
19	Yukon	25.5	54.0	36	105	28.5
20	Michigan	27.3	21.0	38	22	-6.3
21	West Virginia	31.9	32.3	49	58	0.4
22	Nfld & Labrador	32.4	40.9	50	82	8.5
23	British Columbia	33.2	37.7	52	71	4.5
24	Nova Scotia	33.3	30.4	53	54	-2.9
25	New Mexico	34.3	26.8	54	43	-7.5
26	Offshore–Alaska	36.2	37.9	57	72	1.7
27	Alberta	36.7	47.5	60	92	10.8
28	Colorado	37.3	40.4	61	81	3.1
29	Kentucky	40.3	21.7	65	26	-18.7
30	Pennsylvania	40.4	29.6	66	51	-10.9
31	Alaska	41.8	39.7	68	78	-2.1
32	Offshore–Atlantic	42.4	29.8	71	53	-12.6
33	NW Territories	44.1	62.8	74	120	18.8
34	Quebec	44.9	36.9	77	68	-8.0
35	California	49.3	40.1	87	79	-9.2
36	Florida	57.9	N/A	100	N/A	N/A
37	New York	59.3	22.7	102	29	-36.6
38	Offshore–Pacific	60.7	23.6	103	33	-37.1

Source: Angevine and Cervantes, 2010.

well as information on royalty changes to encourage investment in unconventional natural gas supplies (e.g., gas from shale formations and coal seams) and deep and horizontal drilling, were not made available until after the survey had been completed.

A second Alberta 2010 score (not included in table 2), one based on survey responses received this year but prior to the government's March announcement, also shows an improvement in Alberta's ranking since last year. This improvement was largely the result of improved marks for the province's fiscal regime, which suggests that the royalty changes were widely anticipated.

Both Quebec and Nova Scotia lost favour with investors this year, as indicated by their higher scores. However, only Quebec slipped in the rankings, ranking last among the 10 Canadian jurisdictions evaluated and 34th of the 38 Canadian and US jurisdictions that were rated.

The only North American jurisdictions considered to be less attractive than Quebec for petroleum exploration and development investment were California, Florida, New York State, and the US Pacific Offshore. New York State's score fell considerably, probably as a result of investor concerns regarding restrictions on drilling for shale gas. The three other jurisdictions in this group have been hit hard by investor hesitation on account of uncertainty regarding offshore drilling regulations.

Eight of the nine American states and offshore regions ranking among the 10 most attractive Canadian and American jurisdictions (South Dakota, Texas, Illinois, Wyoming, Mississippi, Utah, Oklahoma, and Alabama) were also among the 10 highest ranked jurisdictions in the world this year. Only five US jurisdictions that made it into the top 10 this year were also there in 2009.

The US jurisdictions that improved their scores the most this year were Ohio and Wyoming. Conversely, the US jurisdictions that experienced the most significant drop in their scores were the US Pacific Offshore, New York State, and Kentucky. The US Atlantic Offshore, Pennsylvania, Kansas, California, Arkansas, and New Mexico also lost considerable favour among investors.

Performance relative to other world regions

In order to provide further insight into the performance of various jurisdictions, their scores were segmented according to the quintiles (five groups) into which they fell. Those with scores in the zero to 19.9 range (the 1st quintile) were assumed to be the most attractive jurisdictions in the eyes of the survey respondents, while those with scores in the 5th quintile were judged to be the least attractive to investors.

Of the 24 jurisdictions in the world with 1st quintile scores this year, 14 were in the United States. The others were Austria, five Australian jurisdictions, New Zealand, two Canadian provinces (Manitoba and Saskatchewan), and Chile. By way of comparison, in 2009 only 19 jurisdictions achieved 1st quintile scores—15 of which were in the United States. The other jurisdictions in this quintile in 2009 were Austria, South Australia, the Netherlands – North Sea, and Namibia. Clearly, the 1st quintile performance gains this year were not in the United States, but in Australia, New Zealand, and Canada.

Thirty-nine jurisdictions had scores in the fairly attractive 2nd quintile range this year, including six American and six Canadian jurisdictions. In 2009, 59 jurisdictions were in 2nd quintile, of which 14 were US jurisdictions and six were Canadian.

Although four fewer US jurisdictions were evaluated this year, seven US states and offshore regions achieved mediocre 3rd quintile status in 2010 (of a group of 39), compared with only two (of a group of 36) in 2009. Two Canadian jurisdictions fell in the 3rd quintile this year, compared with three in 2009. Together, Canadian and American jurisdictions comprised 23% of the jurisdictions with 3rd quintile scores in 2010, compared with only 14% a year ago.

As in 2009, this year only a very small proportion of Canadian and US jurisdictions had scores in the unattractive 4th quintile. Only one North American jurisdiction (US Offshore – Pacific) had a 4th quintile score this year (of a group of 21); two jurisdictions, both Canadian, fell into the 4th quintile (of a group of 24) last year. Since the survey's inception, no Canadian or US jurisdiction has been considered so unattractive for investment that it has scored in the 5th quintile.

While North American jurisdictions continue to perform favourably relative to much of the rest of the world, there has been some deterioration in the attractiveness of the region as a whole, as evidenced by the increased proportion of Canadian and US jurisdictions scoring in the 3rd quintile. This decline appears to be the result of growing concerns and uncertainty over environmental regulations. Such concerns are not as evident in Australia and New Zealand, where all of the jurisdictions improved their scores this year, falling into the 1st or 2nd quintile.

Policy implications

Policy makers in jurisdictions with relatively unattractive scores (such as the Northwest Territories, Quebec, California, Florida, New York State, and the US Offshore – Pacific) and in jurisdictions whose scores have dropped significantly, but are not included in that group (such as the US Atlantic Offshore, Kentucky, and Pennsylvania), need to be aware of the fact that investors are questioning the wisdom of investing in the their

continued on page 25

Highlights of the 2010 Global Petroleum Survey

continued from page 17

states or offshore regions. As indicated, uncertainty and/or the cost of compliance with environmental regulations has a lot to do with investor pessimism regarding those jurisdictions. If policy makers in those states, provinces, and territories want to be more successful at attracting petroleum investment in what has become a tough, globally competitive environment, they must be aware of the reasons for investors' concerns and introduce changes to existing laws, regulations, and/or institutional arrangements. It is only by taking steps to improve the competitiveness of their jurisdictions that they can hope to overcome their present difficulties.

Notes

1 No responses were received after the BP Horizon drilling rig platform sank off the coast of Louisiana on April 22, causing a massive leak from the oil well into the seabed.

2 A minimum of five responses to each survey question were required to evaluate and score a jurisdiction.

3 For example, on March 3, 2009, the government introduced a temporary drilling royalty credit and a maximum 5% royalty on first-year production for new conventional oil and gas wells (Alberta, Department of Energy, 2009).

References

Alberta, Department of Energy (2009). Province Announces Three-point Incentive Program for Energy Sector. News release (March 3). <http://alberta.ca/ACN/200903/25402CDEFE818-F1BC-5D66-DF309066E457F2A4.html>.

Angevine, Gerry, and Miguel Cervantes (2010). *Fraser Institute Global Petroleum Survey 2010*. Fraser Institute.

International Energy Agency [IEA] (2009). *World Energy Outlook 2009*. IEA. ■