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# Canada-US Energy Sector Competitiveness Survey 2019

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# Contents

# Executive Summary

This report presents the results of the Fraser Institute's 2019 *Canada-US Energy Sector Competitiveness Survey* regarding barriers to investment in oil and gas exploration and production facilities in each of the two countries. The survey responses have been tallied to rank Canadian and American jurisdictions according to the extent of such barriers. Those barriers, as assessed by the survey respondents, include high tax rates, costly regulatory obligations, uncertainty over environmental regulations, and the interpretation and administration of regulations governing the "upstream" petroleum industry, as well as concerns over political stability and security of personnel and equipment.

This year's survey of senior executives in the upstream oil and gas sector is consistent with the methodology used in previous editions of the *Global Petroleum Survey*. A total of 81 respondents participated in the survey this year, providing sufficient data to evaluate five Canadian provinces and 15 American states.

The jurisdictions that are evaluated are assigned scores on each of 16 questions pertaining to factors known to affect investment decisions. These scores are then used to generate a "Policy Perception Index" for each jurisdiction that reflects the perceived extent of the barriers to investment.

According to this year's survey, Texas is the most attractive jurisdiction for oil and gas investment followed by Oklahoma ($2^{nd}$) and Kansas ($3^{rd}$). Seven other US jurisdictions also ranked in the top 10 this year: Wyoming ($4^{th}$), US Offshore—Gulf of Mexico ($5^{th}$), North Dakota ($6^{th}$), Alabama ($7^{th}$), New Mexico ($8^{th}$), Montana ($9^{th}$), and Mississippi ($10^{th}$). None of the top 10 most attractive jurisdictions are located in Canada. Among Canadian jurisdictions, Saskatchewan is the most attractive jurisdiction for upstream oil and gas investment (ranked $13^{th}$ out of 20) while British Columbia poses the greatest barriers to investment (ranked $19^{th}$ out of 20). Alberta ranks $16^{th}$ out of 20 jurisdictions.

Investors pointed to the uncertainty concerning environmental regulations, taxation, and regulatory duplication and inconsistencies as major areas of concern in Canadian provinces compared to US states. In particular, in 2019, only 9 percent of respondents in Texas and 12 percent of respondents in Oklahoma indicated that uncertainty concerning environmental regulations and was a deterrent to investment there, whereas in British Columbia it was an issue for 94 percent, and in Alberta a problem for 80 percent of respondents. On average, 65 percent of respondents for Canada are deterred by environmental regulations, compared to 37 percent for the United States.

An Alberta/Texas comparison demonstrates how results vary by region: 53 percent of respondents identified taxation as a deterrent to investment in Alberta versus only 12 percent for Texas. Overall, investors expressed heightened concern over taxation in Canada compared to the United States. The percentage of respondents indicating that taxation in general was deterring investment was, on average, 60 percent for Canada compared to only 32 percent for the United States.

The Alberta/Texas comparison also shows that 65 percent of respondents identified regulatory duplication and inconsistencies as a deterrent to investment in Alberta compared to only 8 percent for Texas. Overall, regulatory duplication and inconsistencies are a significant concern for investors in Canada compared to the United States. On average, 53 percent of respondents indicated that this factor was a deterrent to investment for the Canadian provinces compared to only 31 percent for the United States.

Overall, our analysis of the 2019 survey results indicates that the extent of negative sentiments regarding key factors driving petroleum investment decisions is heightened in many Canadian provinces compared to competing American jurisdictions.

# Introduction

This year's 2019 *Canada-US Energy Sector Competitiveness Survey* builds on the Fraser Institute's previous work on competitiveness and the 2018 *Global Petroleum* Survey (see Aliakbari, 2018 and Stedman and Green, 2018a). This year we surveyed oil and gas executives to get an understanding of how investor perceptions vary between countries.

Results from this survey have enabled us to better understand how provinces and states perform in various policy and regulatory areas. This publication serves as a report card for policymakers. Jurisdictions that investors assess as relatively unattractive may use the findings of this publication to consider policy reforms that could improve their rankings either across the board, or in individual policy areas.

Recent reports suggest that Canada is falling behind the United States in terms of attracting investment (Aliakbari, 2019). In particular, the percentage of capital investment in Canada's oil and gas sector as a share of total capital investment has plummeted, from 28 percent in 2014 to 13.9 percent in 2018. In addition, between 2016 and 2018, the United States has enjoyed a 41 percent increase in investment in its upstream oil and gas sector compared to only a 15 percent increase in Canada (Globerman, 2019).

The 2019 *Canada-US Energy Sector Competitiveness Survey* spotlights policies that affect investment attractiveness including royalties, taxes, and regulations. It highlights policy areas where investors believe that regions need to make improvements. This analysis offers a unique perspective on both the state of the investment climate in Canada's petroleum industry and how investor perceptions vary by region. This year's survey identifies potential reasons for declining investor perceptions of Canada's energy sector when compared to the United States.

# Survey Methodology

## Sample design

This survey of senior executives in the upstream oil and gas sector is consistent with the survey used in previous editions of the *Global Petroleum Survey*. The survey is designed to identify provinces and states with the greatest barriers to investment in oil and gas exploration and production. Jurisdictions that investors assess as relatively unattractive may use the findings of the survey to consider policy reforms that could improve their rankings either across the board or in individual policy areas. Petroleum companies can also use the information to corroborate their own assessments and to identify jurisdictions where business conditions and the regulatory environment are most attractive for investment. The survey results are also a useful source of information for academics interested in international competitiveness in the oil and gas sector, or for the media looking for independent evidence as to how particular jurisdictions compare.

The survey was distributed to managers and executives in the “upstream” petroleum industry. This industry includes companies exploring for oil and gas, those producing crude oil from conventional and non-conventional sources (such as bitumen from oil sands and shale formations), and those producing natural gas from both conventional and non-conventional sources, such as coal-bed methane and gas embedded in shale formations. It does not include companies that are refining, upgrading, or processing crude oil, bitumen, and raw natural gas, or those that are involved in the transportation and marketing of petroleum products, unless such companies are also directly involved in the upstream.

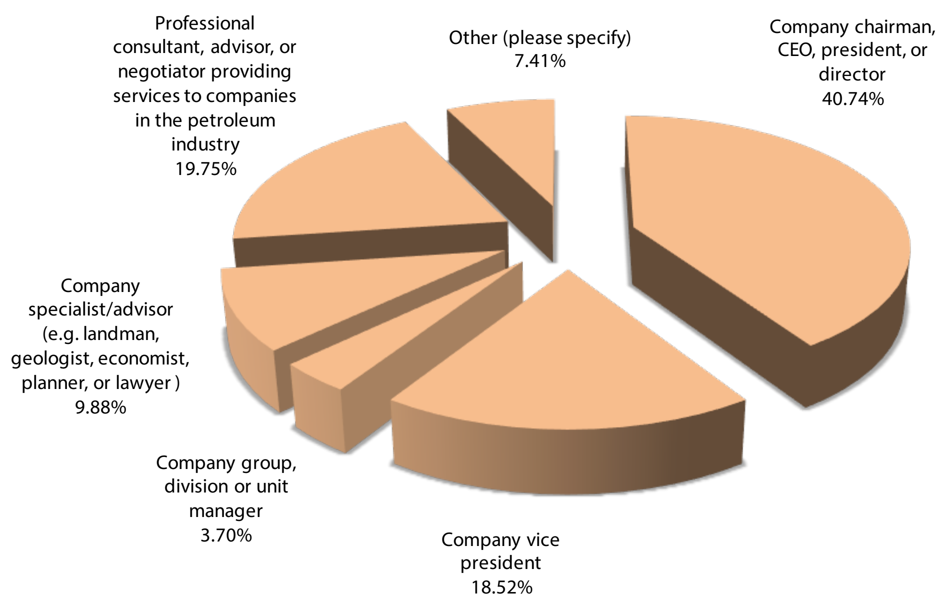
The names of potential respondents were taken from publicly available membership lists of trade associations and other sources. In addition, some industry associations and non-profit think tanks provided contact information and helped to advertise the survey to their members.

The survey was conducted from May 21, 2019, until August 9, 2019. A total of 81 individuals responded to the survey in 2019. This year’s response rate allowed for the inclusion of 5 Canadian provinces and 15 American states.[1]

As figure 1 illustrates, almost 63 percent of respondents identified themselves as either a manager or holding a higher level position. Figure 2 shows that 66 percent of the firms participating in the survey are engaged in the exploration and development of oil, 45 percent are engaged in the

[1] Jurisdictions that received fewer than 5 responses were not included in the survey.

## Figure 1: The position survey respondents hold in their company, 2019




## Figure 2: Activities performed by firms of survey respondents, 2019

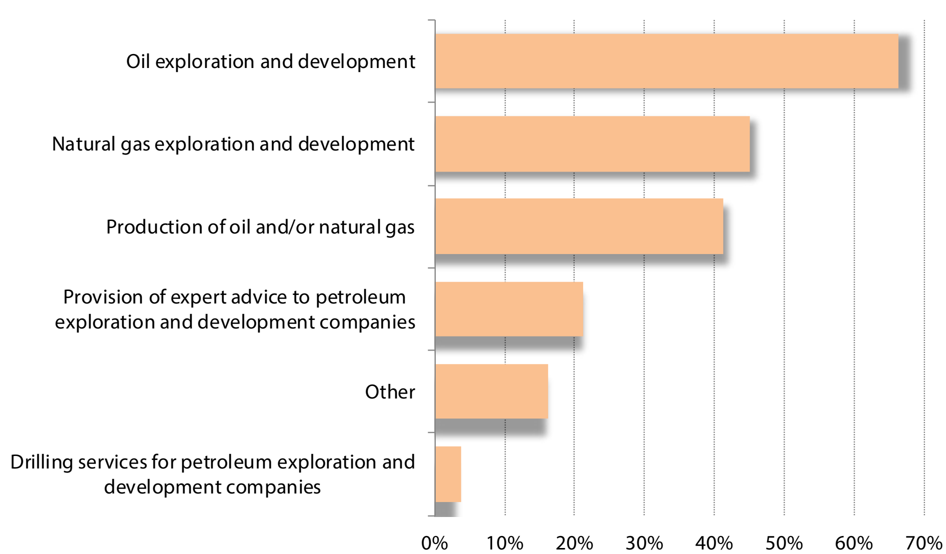
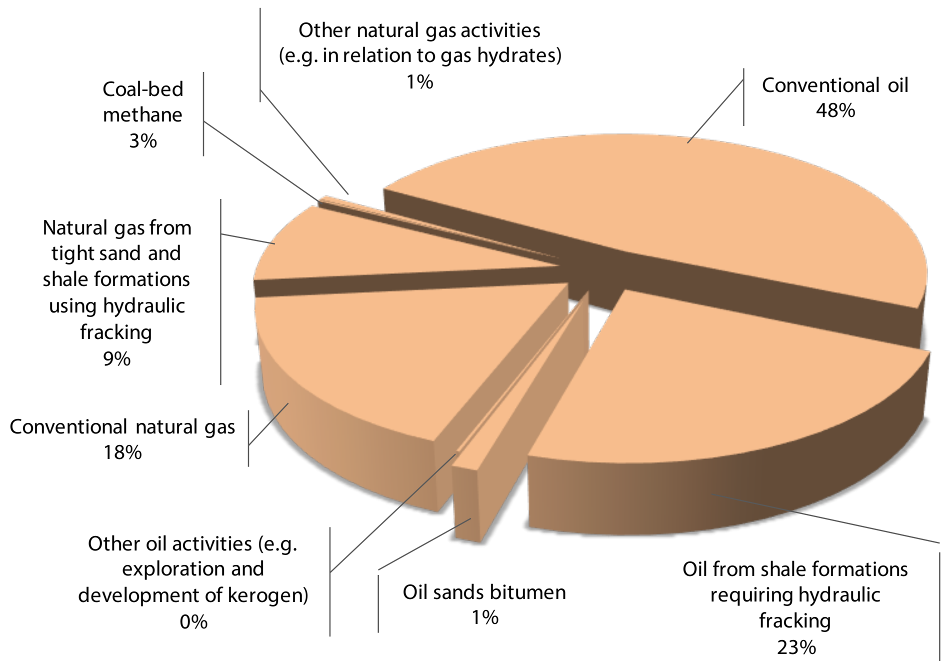


**Figure 3: Company focus in petroleum exporation and development business, as indicated by respondents**




exploration and development of natural gas, 41 percent are engaged in production of oil and/or natural gas, and 25 percent provide expert advice and/or drilling services.

Figure 3 shows the principal focus of the petroleum exploration and development activities of companies whose managers or other representatives participated in the survey. The focus of most of these companies (66 percent) is on finding and developing conventional oil and gas reserves. Unconventional oil and natural gas exploration and development represented 34 percent of the focus of companies in 2019.

Participants employed by petroleum firms reported that 24 percent of their upstream activity involves unconventional oil resources. The majority of this activity (95 percent) includes the recovery of oil from shale formations using hydraulic fracturing, 5 percent is focused on oil sands bitumen, and 1 percent on other oil activities, such as the exploration or development of oil from kerogen[2] found in shale rock.

Participants in the survey also reported that 10 percent of their upstream activity involves unconventional natural gas resources. The majority of this

[2] Kerogen is a naturally occurring, solid, insoluble organic matter that occurs in source rocks and can yield oil when it is heated (Schulumberger, 2018).

activity (93 percent) involves the recovery of natural gas from tight sand and shale formations using hydraulic fracturing. Five percent of the petroleum firms responding to the survey reported other unconventional natural gas activities (e.g., related to gas hydrates). Two percent is focused on coal-bed methane.

## Survey questionnaire

The survey was designed to capture the opinions of managers and executives about the level of investment barriers in jurisdictions with which they are familiar. Respondents were asked to indicate how each of the 16 factors listed below influence company decisions to invest in various jurisdictions. The factors were consistent with those in the 2018 *Global Petroleum Survey*.

1. **Fiscal terms**—including licenses, lease payments, royalties, other production taxes, and gross revenue charges, but not corporate and personal income taxes, capital gains taxes, or sales taxes.
2. **Taxation in general**—the tax burden including personal, corporate, payroll, and capital taxes, and the complexity of tax compliance, but excluding petroleum exploration and production licenses and fees, land lease fees, and royalties and other charges directly targeting petroleum production.
3. **Environmental regulations**—stability of regulations, consistency and timeliness of regulatory process, etc.
4. **Regulatory enforcement**—uncertainty regarding the administration, interpretation, stability, or enforcement of existing regulations.
5. **Cost of regulatory compliance**—related to filing permit applications, participating in hearings, etc.
6. **Protected areas**—uncertainty concerning what areas can be protected as wilderness or parks, marine life preserves, or archaeological sites.
7. **Trade barriers**—tariff and non-tariff barriers to trade and restrictions on profit repatriation, currency restrictions, etc.
8. **Labor regulations and employment agreements**—the impact of labor regulations, employment agreements, labor militancy or work disruptions, and local hiring requirements.

9. **Quality of infrastructure**—includes access to roads, power availability, etc.
10. **Quality of geological database**—includes quality, detail, and ease of access to geological information.
11. **Labor availability and skills**—the supply and quality of labor, and the mobility that workers have to relocate.
12. **Disputed land claims**—the uncertainty of unresolved claims made by aboriginals, other groups, or individuals.
13. **Political stability.**
14. **Security**—the physical safety of personnel and assets.
15. **Regulatory duplication and inconsistencies** (includes federal/provincial, federal/state, inter-departmental overlap, etc.)
16. **Legal system**—legal processes that are fair, transparent, non-corrupt, efficiently administered, etc.

For each of the 16 factors, respondents were asked to select one of the following five responses that best described each jurisdiction with which they were familiar:

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

## Scoring the survey responses — Policy Perception Index

This year we replicated the methodology used in 2016, which follows that used in the Fraser Institute's *Annual Survey of Mining Companies* (see Stedman and Green, 2018b). The methodology differs from that used prior to 2016[3] in that it is it is based on an average of the responses for all five

[3] See appendix 2 for an overview of the previous methodology.

possible response categories.[4] In previous years, the index was based only on the prevalence of responses in the "deters investment" categories. The measure also takes into consideration how far a jurisdiction's score is from the average in each of the policy areas. To calculate the Policy Perception Index (PPI), a score for each jurisdiction is estimated for all 16 factors addressed by the survey questions by calculating each jurisdiction's average response in relation to each survey question.. We then standardize this score using a common technique, whereby 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 16 policy variables, as reflected by the responses to the survey questions, are then added to generate a final, standardized PPI score. That score is then normalized using the formula ((Vmax-Vi))/((Vmax-Vmin))×100.5 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.

[4] Encourages investment, not a deterrent to investment, mild deterrent to investment, strong deterrent to investment, and would not invest due to this factor.

[5] Where Vmax is the maximum value, Vmin is the minimum value, and Vi represents the summed score of a jurisdiction.

# Canada-US Results

## Policy Perception Index Rankings

Table 1 compares the scores and rankings on the Policy Perception Index (PPI) in 2019. The first set of columns shows the absolute scores for the jurisdictions, based on the methodology described above. The second set of columns shows the rankings. Readers are reminded that these rankings are driven purely by responses to the survey questions and do not account for the extent of any jurisdiction's proved oil and gas reserves. Hence, some jurisdictions with relatively small or even no reserves may rank more highly on the basis of the respondents' perceptions of business conditions, regulatory regimes, and other factors than some jurisdictions with significant reserve holdings.[6]

### Table 1: Policy Perception Index 2019

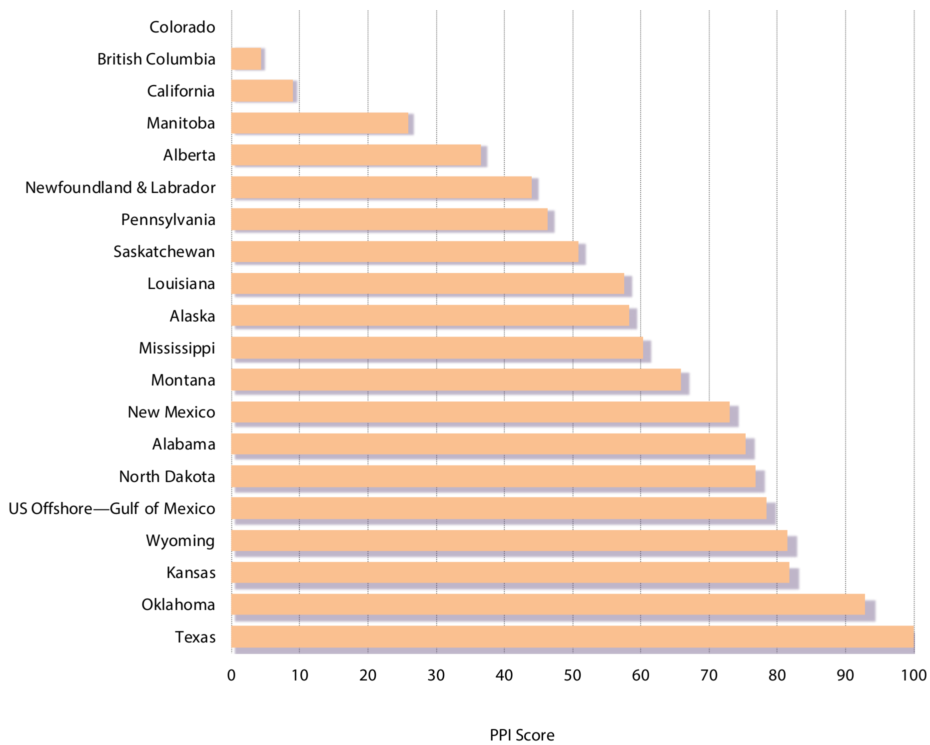
| | Score | Rank |
|---|---|---|
| Texas | 100.00 | 1/20 |
| Oklahoma | 92.78 | 2/20 |
| Kansas | 81.84 | 3/20 |
| Wyoming | 81.48 | 4/20 |
| US Offshore—Gulf of Mexico | 78.40 | 5/20 |
| North Dakota | 76.82 | 6/20 |
| Alabama | 75.39 | 7/20 |
| New Mexico | 72.94 | 8/20 |
| Montana | 65.86 | 9/20 |
| Mississippi | 60.30 | 10/20 |
| Alaska | 58.24 | 11/20 |
| Louisiana | 57.61 | 12/20 |
| Saskatchewan | 50.83 | 13/20 |
| Pennsylvania | 46.40 | 14/20 |
| Newfoundland & Labrador | 44.06 | 15/20 |
| Alberta | 36.49 | 16/20 |
| Manitoba | 25.85 | 17/20 |
| California | 8.99 | 18/20 |
| British Columbia | 4.26 | 19/20 |
| Colorado | 0.00 | 20/20 |

[6] As noted in the 2018 *Global Petroleum Survey*, comparing jurisdictions based on their reserve size is particularly useful given that jurisdictions with small resource endowments cannot be expected to attract nearly as much investment as those with relatively large undeveloped oil and gas reserves. Therefore, this analysis compares jurisdictions with similar proved reserve sizes as noted by the 2018 *Global Petroleum Survey*.

**Figure 4** presents the Policy Perception Index rankings for the 20 jurisdictions ranked this year. Respondents ranked the following 10 jurisdictions as the most attractive for investment in petroleum exploration and development:

1. Texas
2. Oklahoma
3. Kansas
4. Wyoming
5. US Offshore – Gulf of Mexico
6. North Dakota
7. Alabama
8. New Mexico
9. Montana
10. Mississippi

## Figure 4: Policy Perception Index



# Results by Region

## Canada

**Figure 5** illustrates the relative performance of the Canadian jurisdictions in the 2019 survey. Compared to American jurisdictions, survey respondents awarded low (i.e., less favorable) overall scores to a number of Canadian jurisdictions this year, indicating that barriers to investment are significant.

According to the Policy Perception Index measure, Saskatchewan is the most attractive Canadian jurisdiction for upstream petroleum investment. The second most attractive Canadian jurisdiction is Newfoundland & Labrador, followed by Alberta (3rd) and Manitoba (4th). British Columbia stands out as the Canadian jurisdiction posing the greatest barriers to investment. Due to low response rates, results for the other Canadian provinces and territories were not ranked in 2019.

Comments from respondents about various Canadian provinces and territories ranged from complimentary to critical. The comments in the following section have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meaning.

### Canada—General

> "Canada has become a high-risk area for oil and gas investment. This country's regulatory process is uncertain and subjective."

> "Bill C-69, Bill C-48, and the federal carbon tax are negatively impacting investment decisions. The lost revenue from Canada's inability to build pipelines is significant and can never be recovered."

> "The approval of LNG Canada is encouraging for investors."

### Alberta

> "Ongoing pipeline constraints are a serious concern for investors."

> "Alberta's corporate tax reduction is encouraging for investors."

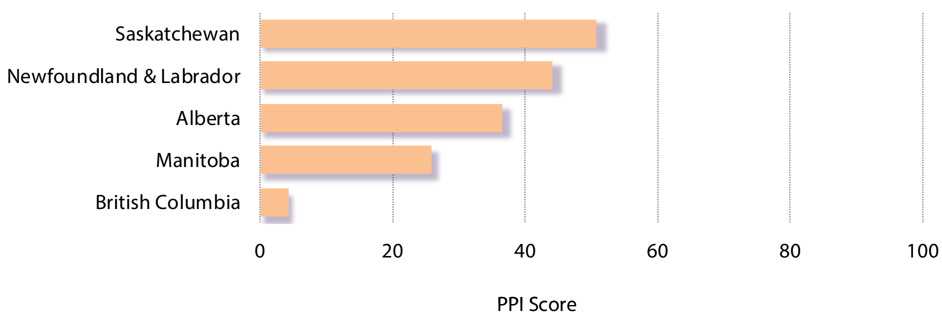
### British Columbia

> "The provincial government's opposition to the Trans Mountain pipeline expansion deters investment."

### Saskatchewan

> "Saskatchewan's horizontal drilling royalty structure is encouraging for investors."

Figure 5: Policy Perception Index—Canada




## The United States

We received sufficient responses in 2019 to enable us to rank 15 US jurisdictions.

Texas is the most attractive jurisdiction in the United States—and the most attractive jurisdiction in this analysis. Oklahoma is the second most attractive jurisdiction in the US and the second most attractive in this year's survey. Eight other US jurisdictions also ranked in the top 10 this year: Kansas (3rd), Wyoming (4th), US Offshore—Gulf of Mexico (5th), North Dakota (6th), Alabama (7th), New Mexico (8th), Montana (9th), and Mississippi (10th) (**figure 6**).

Survey participants' comments on a number of American jurisdictions are presented below. Comments have been edited for length, grammar and spelling, to retain confidentiality, and to clarify meanings.

### Colorado

> "Policymakers are out of touch with the concerns of the oil and gas industry."

### Louisiana

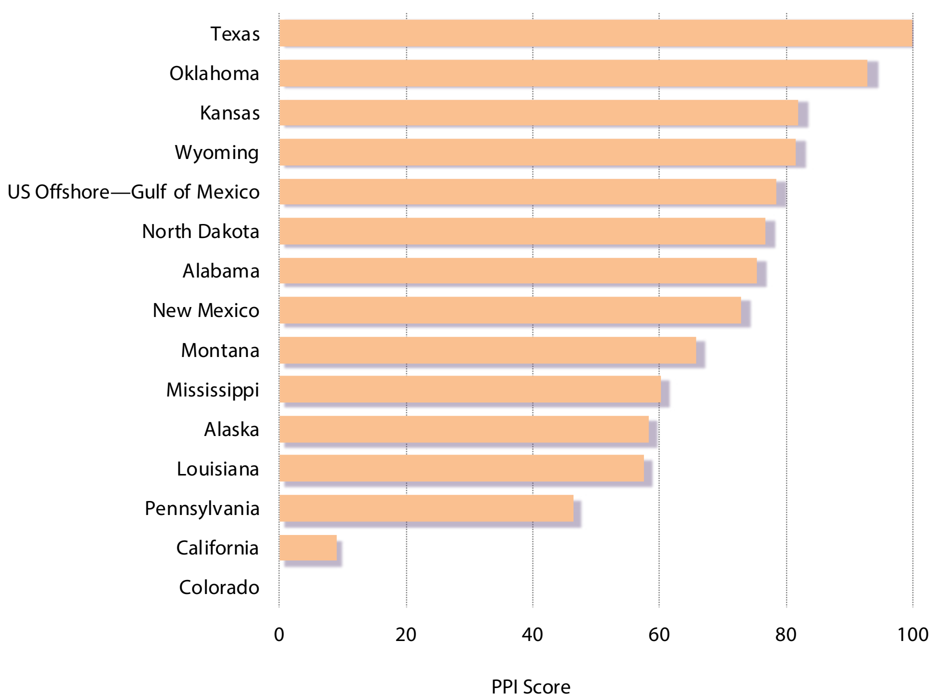
> "Legacy lawsuits against oil and gas companies are concerning for investors."

### Texas

> "Texas has a simple and efficient permitting processes that provides much-needed certainty for investors."

> "Texas is a low-tax jurisdiction with fast permitting processes."

#### Figure 6: Policy Perception Index—United States



# Results by Category

The results of the survey have been broken into four areas: regulatory factors, commercial, geopolitical, and land-related risks.[7]

## Regulatory factors

This year respondents pointed to uncertainty concerning environmental regulations and regulatory duplication and inconsistencies as more of a concern in Canada than the United States.

To assess how regulatory processes vary between jurisdictions, we asked survey respondents six questions about various regulatory factors. The analysis of the questions in this area are combined in this section.

### *Cost of regulatory compliance (see table 2)*

#### *Canada*

Many Canadian provinces have poorer results for the cost of regulatory compliance than their American competitors. British Columbia is the worst performing province on this factor, with 80 percent of respondents indicating that the high cost of regulatory compliance was a deterrent to investment in the province. Alberta also performs poorly, with 65 percent of respondents indicating that the cost of regulatory compliance in the province was a deterrent to investment. The top performing Canadian jurisdiction on this measure was Saskatchewan, with 33 percent of respondents citing this factor as a deterrent to investment.

#### *United States*

In contrast, many US jurisdictions perform well on this factor, though there are some exceptions. Only 10 percent of respondents for Texas—the country's largest oil producer—indicated that the cost of regulatory compliance was a deterrent to investment. In addition, only 14 percent of respondents for Oklahoma and 25 percent for Kansas cited this factor as a deterrent to investment. The poorest performing US states were California and Colorado, where 90 percent of respondents were deterred by this factor.

[7] This section uses categories based on Stedman and Green (2018a: Appendix 2) that focus on particular dimensions of policy to streamline the analysis.

### *Overall*

Overall, respondents see the high cost of regulatory compliance as more of a serious area of concern in Canada than the United States. The percentage of respondents indicating that the cost of regulatory compliance in the provinces was deterring investment was, on average, 51 percent in Canada compared to 39 percent in the United States.

#### Table 2: Cost of Regulatory Compliance

1: Encourages investment 2: Not a deterrent to investment
3: Mild deterrent to investment 4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | Response | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 4% | 31% | 27% | 38% | 0% |
| | British Columbia | 0% | 20% | 27% | 47% | 7% |
| | Manitoba | 13% | 50% | 13% | 25% | 0% |
| | Newfoundland & Labrador | 0% | 60% | 20% | 20% | 0% |
| | Saskatchewan | 19% | 48% | 10% | 24% | 0% |
| UNITED STATES | Alabama | 43% | 29% | 14% | 14% | 0% |
| | Alaska | 14% | 43% | 14% | 29% | 0% |
| | California | 0% | 10% | 40% | 40% | 10% |
| | Colorado | 10% | 0% | 40% | 30% | 20% |
| | Kansas | 50% | 25% | 25% | 0% | 0% |
| | Louisiana | 6% | 31% | 56% | 6% | 0% |
| | Mississippi | 13% | 63% | 25% | 0% | 0% |
| | Montana | 30% | 50% | 20% | 0% | 0% |
| | New Mexico | 33% | 33% | 22% | 11% | 0% |
| | North Dakota | 31% | 54% | 15% | 0% | 0% |
| | Oklahoma | 36% | 50% | 14% | 0% | 0% |
| | Pennsylvania | 0% | 33% | 67% | 0% | 0% |
| | Texas | 40% | 50% | 10% | 0% | 0% |
| | Wyoming | 44% | 22% | 22% | 11% | 0% |
| | US Offshore—Gulf of Mexico | 13% | 53% | 13% | 20% | 0% |

Note: Percentages may not add up to 100 due to rounding.

## *Regulatory enforcement (see table 3)*

### *Canada*

When considering uncertainty concerning existing regulations, a category that tries to determine respondents' views about the uncertainty regarding the administration, interpretation, stability, or enforcement of existing regulations, British Columbia is the worst performing province on this factor:

**Table 3: Regulatory Enforcement**

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | Response | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 7% | 43% | 18% | 29% | 4% |
| | British Columbia | 0% | 31% | 38% | 19% | 13% |
| | Manitoba | 25% | 38% | 25% | 13% | 0% |
| | Newfoundland & Labrador | 0% | 80% | 20% | 0% | 0% |
| | Saskatchewan | 23% | 41% | 18% | 14% | 5% |
| UNITED STATES | Alabama | 29% | 57% | 14% | 0% | 0% |
| | Alaska | 22% | 33% | 44% | 0% | 0% |
| | California | 0% | 18% | 27% | 45% | 9% |
| | Colorado | 0% | 18% | 45% | 18% | 18% |
| | Kansas | 38% | 50% | 13% | 0% | 0% |
| | Louisiana | 18% | 35% | 41% | 6% | 0% |
| | Mississippi | 33% | 44% | 22% | 0% | 0% |
| | Montana | 17% | 75% | 8% | 0% | 0% |
| | New Mexico | 11% | 67% | 11% | 11% | 0% |
| | North Dakota | 20% | 67% | 13% | 0% | 0% |
| | Oklahoma | 33% | 60% | 7% | 0% | 0% |
| | Pennsylvania | 0% | 57% | 43% | 0% | 0% |
| | Texas | 42% | 52% | 6% | 0% | 0% |
| | Wyoming | 18% | 45% | 36% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 11% | 61% | 22% | 6% | 0% |

Note: Percentages may not add up to 100 due to rounding.

69 percent of respondents for the province indicated that regulatory enforcement was a deterrent to investment. Further, 50 percent of respondents for Alberta also indicated that uncertainty concerning existing regulations was a deterrent to investment. The top performing Canadian jurisdiction on this measure was Newfoundland & Labrador, with 20 percent of respondents citing this factor as a deterrent to investment.

### *United States*

Only 6 percent of respondents for Texas indicated that uncertainty concerning regulatory enforcement was a deterrent to investment in that state. Similarly, only seven percent of respondents for Oklahoma and 13 percent for North Dakota were deterred by uncertainty concerning existing regulations. The poorest performing US states were California and Colorado, where 82 percent of respondents were deterred by this factor.

### *Overall*

On average, many Canadian jurisdictions perform poorly relative to their US counterparts when analyzing uncertainty regarding the administration, interpretation, stability, or enforcement of existing regulations. The percentage of respondents for the Canadian provinces indicating that this factor was a deterrent to investment was, on average, 43 percent compared to 31 percent for the United States.

## *Environmental regulations (see table 4)*

### *Canada*

Under the category of environmental regulations, the survey asks respondents about the stability of regulations, consistency and timeliness of regulatory process, etc. On this factor, many Canadian provinces perform poorly compared to their US competitors. In particular, 94 percent of respondents for British Columbia and 80 percent of respondents for Alberta indicated that this factor was a deterrent to investment. The top performing Canadian jurisdiction on this measure was Saskatchewan, with 45 percent of respondents indicating that environmental regulations were a deterrent to investment.

### *United States*

Only 9 percent of respondents for Texas, 12 percent for Oklahoma, and 13 percent for North Dakota indicated that uncertainty concerning environmental regulations was a deterrent to investment. Similarly, 13 percent for Kansas were deterred by uncertainty concerning environmental regulations.

The poorest performing US state was California, where 100 percent of respondents were deterred by this factor.

### *Overall*

On average, investors expressed greater concern over uncertainty concerning environmental regulations in Canada than in the United States. On average, 65 percent of respondents for the Canadian provinces indicated that this factor was a deterrent to investment compared to only 37 percent for the United States.

#### Table 4: Environmental Regulations

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 3% | 17% | 43% | 33% | 3% |
| | British Columbia | 0% | 6% | 35% | 59% | 0% |
| | Manitoba | 11% | 33% | 33% | 22% | 0% |
| | Newfoundland & Labrador | 0% | 50% | 33% | 17% | 0% |
| | Saskatchewan | 9% | 45% | 27% | 14% | 5% |
| UNITED STATES | Alabama | 25% | 50% | 25% | 0% | 0% |
| | Alaska | 18% | 18% | 55% | 9% | 0% |
| | California | 0% | 0% | 17% | 75% | 8% |
| | Colorado | 0% | 8% | 33% | 42% | 17% |
| | Kansas | 13% | 75% | 13% | 0% | 0% |
| | Louisiana | 17% | 39% | 39% | 6% | 0% |
| | Mississippi | 30% | 50% | 20% | 0% | 0% |
| | Montana | 21% | 64% | 14% | 0% | 0% |
| | New Mexico | 0% | 64% | 27% | 9% | 0% |
| | North Dakota | 31% | 56% | 13% | 0% | 0% |
| | Oklahoma | 29% | 59% | 12% | 0% | 0% |
| | Pennsylvania | 0% | 63% | 25% | 13% | 0% |
| | Texas | 48% | 42% | 9% | 0% | 0% |
| | Wyoming | 25% | 33% | 25% | 17% | 0% |
| | US Offshore—Gulf of Mexico | 15% | 55% | 10% | 20% | 0% |

Note: Percentages may not add up to 100 due to rounding.

## *Labor regulations and employment agreements (see table 5)*

### *Canada*

Investors expressed concern over the impact of labor regulations, employment agreements, labor militancy or work disruptions, and local hiring requirements for many Canadian provinces. In particular, half of the respondents for British Columbia and 40 percent of the respondents for Newfoundland & Labrador indicated that this factor was a deterrent to

**Table 5: Labor Regulations and Employment Agreements**

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 12% | 64% | 16% | 4% | 4% |
| | British Columbia | 0% | 50% | 43% | 7% | 0% |
| | Manitoba | 0% | 88% | 13% | 0% | 0% |
| | Newfoundland & Labrador | 0% | 60% | 20% | 20% | 0% |
| | Saskatchewan | 5% | 75% | 10% | 5% | 5% |
| UNITED STATES | Alabama | 50% | 50% | 0% | 0% | 0% |
| | Alaska | 33% | 67% | 0% | 0% | 0% |
| | California | 0% | 56% | 33% | 11% | 0% |
| | Colorado | 11% | 56% | 22% | 0% | 11% |
| | Kansas | 57% | 43% | 0% | 0% | 0% |
| | Louisiana | 31% | 46% | 15% | 8% | 0% |
| | Mississippi | 29% | 57% | 14% | 0% | 0% |
| | Montana | 40% | 60% | 0% | 0% | 0% |
| | New Mexico | 22% | 56% | 22% | 0% | 0% |
| | North Dakota | 33% | 67% | 0% | 0% | 0% |
| | Oklahoma | 54% | 46% | 0% | 0% | 0% |
| | Pennsylvania | 40% | 40% | 20% | 0% | 0% |
| | Texas | 48% | 44% | 7% | 0% | 0% |
| | Wyoming | 33% | 67% | 0% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 14% | 71% | 14% | 0% | 0% |

Note: Percentages may not add up to 100 due to rounding.

investment. Twenty-four percent of respondents for Alberta expressed concern over this area. The top performing Canadian jurisdiction on this measure was Manitoba, with 13 percent of respondents citing this factor as a deterrent to investment.

### *United States*

None of the respondents for seven US jurisdictions (Alabama, Alaska, Kansas, Montana, North Dakota, Oklahoma, and Wyoming) cited labor regulations and employment agreements as a deterrent to investment. In addition, only 7 percent of respondents for Texas indicated that those regulations and agreements were a deterrent to investment. The poorest performing American state was California where 44 percent of respondents were deterred by this factor.

### *Overall*

Labor regulations and employment agreements are more of a concern for investors in Canada than in the United States. The percentage of respondents for the Canadian provinces indicating that this factor was a deterrent to investment was, on average, 29 percent compared to only 12 percent for the United States.

## *Regulatory duplication and inconsistencies (see table 6)*

### *Canada*

Investors expressed significant concern over regulatory duplication and inconsistencies for many Canadian provinces. In particular, 80 percent of respondents for British Columbia and 65 percent of respondents for Alberta indicated that this factor was a deterrent to investment. Newfoundland and Labrador was the best performing Canadian jurisdiction on this measure, with 20 percent of respondents citing this factor as a deterrent.

### *United States*

Only 8 percent of respondents for Texas indicated that regulatory duplication and inconsistencies were a deterrent to investment. Similarly, 17 percent of respondents for Oklahoma and 27 percent for Louisiana were deterred by regulatory duplication and inconsistencies. The worst performing US state was Colorado, where 78 percent of respondents were deterred by this factor.

### *Overall*

Regulatory duplication and inconsistencies are a significant concern for investors in Canada compared to the United States. On average, 53 percent respondents for the Canadian provinces indicated that this factor was a deterrent to investment compared to only 31 percent for the United States.

**Table 6: Regulatory Duplication and Inconsistencies**

1: Encourages investment; 2: Not a deterrent to investment; 3: Mild deterrent to investment; 4: Strong deterrent to investment; 5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 4% | 31% | 38% | 23% | 4% |
| | British Columbia | 0% | 20% | 60% | 13% | 7% |
| | Manitoba | 13% | 38% | 38% | 13% | 0% |
| | Newfoundland & Labrador | 20% | 60% | 20% | 0% | 0% |
| | Saskatchewan | 14% | 38% | 33% | 10% | 5% |
| UNITED STATES | Alabama | 20% | 40% | 40% | 0% | 0% |
| | Alaska | 33% | 33% | 33% | 0% | 0% |
| | California | 11% | 44% | 33% | 11% | 0% |
| | Colorado | 0% | 22% | 44% | 11% | 22% |
| | Kansas | 14% | 71% | 14% | 0% | 0% |
| | Louisiana | 27% | 45% | 18% | 9% | 0% |
| | Mississippi | 17% | 33% | 50% | 0% | 0% |
| | Montana | 10% | 50% | 40% | 0% | 0% |
| | New Mexico | 25% | 50% | 25% | 0% | 0% |
| | North Dakota | 17% | 50% | 33% | 0% | 0% |
| | Oklahoma | 25% | 58% | 17% | 0% | 0% |
| | Pennsylvania | 20% | 60% | 20% | 0% | 0% |
| | Texas | 44% | 48% | 8% | 0% | 0% |
| | Wyoming | 33% | 56% | 11% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 25% | 58% | 8% | 8% | 0% |

Note: Percentages may not add up to 100 due to rounding.

## *Legal system (see table 7)*

### *Canada*

Investor perceptions of the legal system vary by province. In particular, 33 percent of respondents for British Columbia and 15 percent of respondents for Alberta indicated that this factor was a deterrent to investment. Saskatchewan was the best performing Canadian jurisdiction on this measure, with only 10 percent of respondents citing this factor as a deterrent.

**Table 7: Legal System**

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 23% | 62% | 15% | 0% | 0% |
| | British Columbia | 13% | 53% | 33% | 0% | 0% |
| | Manitoba | 0% | 75% | 25% | 0% | 0% |
| | Newfoundland & Labrador | 40% | 40% | 0% | 20% | 0% |
| | Saskatchewan | 10% | 81% | 10% | 0% | 0% |
| UNITED STATES | Alabama | 60% | 20% | 20% | 0% | 0% |
| | Alaska | 33% | 50% | 17% | 0% | 0% |
| | California | 11% | 78% | 0% | 11% | 0% |
| | Colorado | 33% | 33% | 11% | 0% | 22% |
| | Kansas | 29% | 43% | 29% | 0% | 0% |
| | Louisiana | 33% | 25% | 25% | 17% | 0% |
| | Mississippi | 33% | 17% | 50% | 0% | 0% |
| | Montana | 20% | 60% | 20% | 0% | 0% |
| | New Mexico | 44% | 33% | 11% | 11% | 0% |
| | North Dakota | 25% | 67% | 8% | 0% | 0% |
| | Oklahoma | 38% | 46% | 15% | 0% | 0% |
| | Pennsylvania | 40% | 40% | 20% | 0% | 0% |
| | Texas | 50% | 46% | 0% | 4% | 0% |
| | Wyoming | 33% | 56% | 11% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 50% | 36% | 7% | 7% | 0% |

Note: Percentages may not add up to 100 due to rounding.

#### *United States*

Only 4 percent of respondents for Texas indicated that the legal system was a deterrent to investment. Similarly, 15 percent of respondents for Oklahoma and 20 percent for Montana were deterred by the legal system. The worst performing US state was Mississippi, where 50 percent of respondents were deterred by the legal system.

#### *Overall*

The percentage of respondents deterred by the legal system is consistent between countries. The percentage of respondents deterred by the legal system was, on average, 21 percent for both.

## Commercial risks

### *Fiscal terms and taxation in general (see tables 8 and 9)*

#### *Canada*

Two policy areas that continue to hamper investor perceptions of many Canadian jurisdictions are fiscal terms and taxation in general. Respondents expressed significant concern over fiscal terms and taxation in British Columbia, where the sum of negative responses for these factors was 67 percent and 88 percent, respectively. In Alberta, 45 percent of respondents cited fiscal terms and 53 percent cited taxation as deterrents to investment.

Other Canadian provinces also perform poorly in this area: 33 percent of respondents for Manitoba indicated that fiscal terms were a deterrent and 78 percent cited taxation as a deterrent to investment. Thirty-three percent of respondents for Newfoundland & Labrador cited fiscal terms and taxation as deterrents to investment. Eighteen percent of respondents for Saskatchewan indicated that fiscal terms were a deterrent and 45 percent cited taxation as a deterrent to investment in the province.

#### *United States*

Only 3 percent of respondents for Texas and 6 percent of respondents for Oklahoma indicated that fiscal terms in those states was a deterrent to investment. Meanwhile, 12 percent of respondents indicated that taxation was a deterrent to investment in each of the two states. None of the respondents for Kansas were deterred by fiscal terms, though 25 percent were deterred by taxation. Twenty-two percent of the respondents for Pennsylvania were deterred by fiscal terms and 25 percent were deterred by taxation. California was the worst performer on the fiscal terms and taxation factors: 85 percent and 82 percent of respondents said they were deterred by these factors, respectively.

### Table 8: Fiscal Terms

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 16% | 39% | 26% | 13% | 6% |
| | British Columbia | 0% | 33% | 39% | 28% | 0% |
| | Manitoba | 22% | 44% | 11% | 11% | 11% |
| | Newfoundland & Labrador | 17% | 50% | 0% | 33% | 0% |
| | Saskatchewan | 50% | 32% | 0% | 9% | 9% |
| UNITED STATES | Alabama | 63% | 25% | 13% | 0% | 0% |
| | Alaska | 46% | 38% | 15% | 0% | 0% |
| | California | 8% | 8% | 31% | 31% | 23% |
| | Colorado | 7% | 27% | 27% | 27% | 13% |
| | Kansas | 67% | 33% | 0% | 0% | 0% |
| | Louisiana | 19% | 52% | 10% | 19% | 0% |
| | Mississippi | 42% | 33% | 25% | 0% | 0% |
| | Montana | 53% | 40% | 7% | 0% | 0% |
| | New Mexico | 33% | 50% | 8% | 8% | 0% |
| | North Dakota | 56% | 39% | 6% | 0% | 0% |
| | Oklahoma | 72% | 22% | 6% | 0% | 0% |
| | Pennsylvania | 22% | 56% | 22% | 0% | 0% |
| | Texas | 77% | 20% | 3% | 0% | 0% |
| | Wyoming | 54% | 46% | 0% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 48% | 33% | 19% | 0% | 0% |

Note: Percentages may not add up to 100 due to rounding.

### *Overall*

Overall, investors expressed more concern over fiscal terms and taxation in Canada than in the United States. On average, 39 percent of respondents for the Canadian provinces indicated that fiscal terms was deterring investment compared to 21 percent for the United States. On average, 60 percent of respondents for Canada indicated that taxation in general was deterring investment compared to only 32 percent for the United States.

### Table 9: Taxation in General

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 10% | 37% | 33% | 17% | 3% |
| | British Columbia | 0% | 12% | 59% | 29% | 0% |
| | Manitoba | 11% | 11% | 56% | 22% | 0% |
| | Newfoundland & Labrador | 17% | 50% | 0% | 33% | 0% |
| | Saskatchewan | 18% | 36% | 36% | 5% | 5% |
| UNITED STATES | Alabama | 25% | 50% | 13% | 13% | 0% |
| | Alaska | 45% | 27% | 27% | 0% | 0% |
| | California | 0% | 18% | 27% | 45% | 9% |
| | Colorado | 8% | 31% | 38% | 23% | 0% |
| | Kansas | 13% | 63% | 25% | 0% | 0% |
| | Louisiana | 21% | 26% | 37% | 16% | 0% |
| | Mississippi | 27% | 27% | 36% | 9% | 0% |
| | Montana | 23% | 54% | 23% | 0% | 0% |
| | New Mexico | 18% | 55% | 27% | 0% | 0% |
| | North Dakota | 38% | 44% | 19% | 0% | 0% |
| | Oklahoma | 35% | 53% | 12% | 0% | 0% |
| | Pennsylvania | 13% | 63% | 25% | 0% | 0% |
| | Texas | 59% | 29% | 12% | 0% | 0% |
| | Wyoming | 25% | 50% | 25% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 37% | 47% | 11% | 5% | 0% |

Note: Percentages may not add up to 100 due to rounding.

## *Trade barriers (see table 10)*

### *Canada*

Investor perceptions of trade barriers vary by province. British Columbia was particularly noteworthy: 46 percent of respondents for that province were deterred by this factor. Twenty-five percent of respondents for Alberta and Manitoba indicated that this factor was a deterrent to investment. Newfoundland & Labrador was the best performing Canadian jurisdiction

### Table 10: Trade Barriers

1: Encourages investment 2: Not a deterrent to investment
3: Mild deterrent to investment 4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 4% | 71% | 17% | 8% | 0% |
| | British Columbia | 0% | 54% | 31% | 8% | 8% |
| | Manitoba | 0% | 75% | 13% | 13% | 0% |
| | Newfoundland & Labrador | 0% | 80% | 0% | 20% | 0% |
| | Saskatchewan | 5% | 74% | 11% | 11% | 0% |
| UNITED STATES | Alabama | 17% | 67% | 17% | 0% | 0% |
| | Alaska | 33% | 33% | 33% | 0% | 0% |
| | California | 22% | 44% | 22% | 11% | 0% |
| | Colorado | 11% | 44% | 33% | 11% | 0% |
| | Kansas | 29% | 57% | 14% | 0% | 0% |
| | Louisiana | 15% | 54% | 23% | 8% | 0% |
| | Mississippi | 14% | 71% | 14% | 0% | 0% |
| | Montana | 0% | 90% | 10% | 0% | 0% |
| | New Mexico | 22% | 67% | 11% | 0% | 0% |
| | North Dakota | 8% | 83% | 8% | 0% | 0% |
| | Oklahoma | 31% | 62% | 8% | 0% | 0% |
| | Pennsylvania | 40% | 20% | 40% | 0% | 0% |
| | Texas | 30% | 67% | 4% | 0% | 0% |
| | Wyoming | 22% | 67% | 11% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 21% | 71% | 7% | 0% | 0% |

Note: Percentages may not add up to 100 due to rounding.

on this measure, with 20 percent of respondents citing this factor as a deterrent to investment.

### United States

Only 4 percent of respondents for Texas indicated that trade barriers were a deterrent to investment in that state. Similarly, 8 percent of respondents for Oklahoma and 11 percent for Wyoming were deterred by trade barriers. The worst performing US state was Colorado, where 44 percent of respondents were deterred by trade barriers.

### Overall

The percentage of respondents deterred by trade barriers is slightly higher in Canada than in the United States. On average, 27 percent of respondents for Canada were deterred by trade barriers compared to 19 percent for the United States.

## *Quality of infrastructure (see table 11)*

### Canada

Investor perceptions of the quality of infrastructure vary by province. Fifty-three percent of respondents for British Columbia and 50 percent of respondents for Manitoba indicated that this factor was a deterrent to investment. Alberta and Saskatchewan were the best performers in Canada on this measure, with 19 percent of respondents in both jurisdictions citing this factor as a deterrent.

### United States

Only 7 percent of respondents for Texas indicated that the quality of infrastructure was a deterrent to investment in that state. Similarly, 8 percent of respondents for Oklahoma and zero percent for Kansas were deterred by this factor. The worst performing US state was Pennsylvania, where 60 percent of respondents were deterred by the quality of infrastructure.

### Overall

The percentage of respondents deterred by the quality of infrastructure is higher in Canada than the United States. On average, 36 percent of respondents for Canada were deterred by the quality of infrastructure versus 24 percent for the United States.

## Table 11: Quality of Infrastructure

1: Encourages investment 2: Not a deterrent to investment
3: Mild deterrent to investment 4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 26% | 56% | 11% | 7% | 0% |
| | British Columbia | 0% | 47% | 20% | 27% | 7% |
| | Manitoba | 0% | 50% | 50% | 0% | 0% |
| | Newfoundland & Labrador | 0% | 60% | 20% | 20% | 0% |
| | Saskatchewan | 29% | 52% | 14% | 5% | 0% |
| UNITED STATES | Alabama | 17% | 50% | 33% | 0% | 0% |
| | Alaska | 17% | 33% | 50% | 0% | 0% |
| | California | 44% | 44% | 0% | 11% | 0% |
| | Colorado | 33% | 22% | 22% | 0% | 22% |
| | Kansas | 43% | 57% | 0% | 0% | 0% |
| | Louisiana | 38% | 46% | 15% | 0% | 0% |
| | Mississippi | 14% | 43% | 43% | 0% | 0% |
| | Montana | 30% | 50% | 20% | 0% | 0% |
| | New Mexico | 67% | 22% | 0% | 11% | 0% |
| | North Dakota | 38% | 38% | 23% | 0% | 0% |
| | Oklahoma | 62% | 31% | 8% | 0% | 0% |
| | Pennsylvania | 20% | 20% | 40% | 20% | 0% |
| | Texas | 54% | 39% | 7% | 0% | 0% |
| | Wyoming | 50% | 30% | 10% | 10% | 0% |
| | US Offshore—Gulf of Mexico | 21% | 71% | 0% | 7% | 0% |

Note: Percentages may not add up to 100 due to rounding.

## *Labor availability and skills (see table 12)*

### *Canada*

Most Canadian jurisdictions perform well on labor availability and skills. In particular, 38 percent of respondents for Manitoba and 20 percent of respondents for Newfoundland & Labrador indicated that this factor was a deterrent to investment. Only 13 percent of respondents for British Columbia and 8 percent for Alberta cited this factor as a deterrent.

**Table 12: Labor Availability and Skills**

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 40% | 52% | 4% | 0% | 4% |
| | British Columbia | 27% | 60% | 13% | 0% | 0% |
| | Manitoba | 13% | 50% | 25% | 13% | 0% |
| | Newfoundland & Labrador | 0% | 80% | 0% | 20% | 0% |
| | Saskatchewan | 33% | 52% | 10% | 0% | 5% |
| UNITED STATES | Alabama | 40% | 40% | 20% | 0% | 0% |
| | Alaska | 33% | 50% | 17% | 0% | 0% |
| | California | 38% | 38% | 13% | 13% | 0% |
| | Colorado | 33% | 22% | 22% | 11% | 11% |
| | Kansas | 33% | 50% | 17% | 0% | 0% |
| | Louisiana | 42% | 50% | 8% | 0% | 0% |
| | Mississippi | 17% | 83% | 0% | 0% | 0% |
| | Montana | 20% | 70% | 10% | 0% | 0% |
| | New Mexico | 56% | 22% | 11% | 11% | 0% |
| | North Dakota | 23% | 54% | 23% | 0% | 0% |
| | Oklahoma | 62% | 38% | 0% | 0% | 0% |
| | Pennsylvania | 20% | 60% | 0% | 20% | 0% |
| | Texas | 59% | 30% | 7% | 4% | 0% |
| | Wyoming | 40% | 40% | 20% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 57% | 43% | 0% | 0% | 0% |

Note: Percentages may not add up to 100 due to rounding.

#### *United States*

Eleven percent of respondents for Texas cited labor availability and skills as a deterrent to investment. None of the respondents for Oklahoma indicated that this factor was deterrent, and 17 percent for Kansas were deterred by labor availability and skills. The worst performing US state was Colorado, where 44 percent of respondents were deterred by labor availability and skills.

#### *Overall*

The percentage of respondents deterred by labor availability and skills is similar between countries. On average, the percentage of respondents deterred by labor availability and skills was 19 percent for Canada and 16 percent for the United States.

## Geopolitical risks

### *Political stability (see table 13)*

#### *Canada*

Investor concerns about political stability vary by province. Eighty-seven percent of respondents for British Columbia and 37 percent of respondents for Alberta indicated that political stability was a deterrent to investment. Newfoundland & Labrador was the best performing Canadian jurisdiction on this measure, with none of the respondents citing this factor as a deterrent.

#### *United States*

None of the respondents for Texas indicated that concerns about political stability were a deterrent to investment. Eight percent of respondents for Oklahoma and 17 percent for Louisiana were deterred by political stability. The worst performing US state was California, where 78 percent of respondents were deterred by political stability.

#### *Overall*

Investor concerns over political stability were higher for Canada than the United States. On average, 30 percent of respondents for Canada were deterred by political stability as were 20 percent for the United States.

## Table 13: Political Stability

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 11% | 52% | 22% | 15% | 0% |
| | British Columbia | 0% | 13% | 27% | 60% | 0% |
| | Manitoba | 25% | 63% | 13% | 0% | 0% |
| | Newfoundland & Labrador | 20% | 80% | 0% | 0% | 0% |
| | Saskatchewan | 43% | 43% | 5% | 10% | 0% |
| UNITED STATES | Alabama | 60% | 40% | 0% | 0% | 0% |
| | Alaska | 43% | 43% | 14% | 0% | 0% |
| | California | 0% | 22% | 44% | 33% | 0% |
| | Colorado | 18% | 9% | 36% | 18% | 18% |
| | Kansas | 57% | 43% | 0% | 0% | 0% |
| | Louisiana | 33% | 50% | 0% | 17% | 0% |
| | Mississippi | 33% | 50% | 17% | 0% | 0% |
| | Montana | 25% | 67% | 8% | 0% | 0% |
| | New Mexico | 33% | 44% | 22% | 0% | 0% |
| | North Dakota | 46% | 54% | 0% | 0% | 0% |
| | Oklahoma | 46% | 46% | 8% | 0% | 0% |
| | Pennsylvania | 40% | 40% | 20% | 0% | 0% |
| | Texas | 58% | 42% | 0% | 0% | 0% |
| | Wyoming | 40% | 50% | 10% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 33% | 40% | 20% | 7% | 0% |

Note: Percentages may not add up to 100 due to rounding.

## *Security (see table 14)*

### *Canada*

This survey's respondents generally rate Canadian provinces well for security. In particular, for both British Columbia and Alberta only 7 percent of respondents indicated that this factor was a deterrent to investment. Manitoba and Newfoundland & Labrador were the best performers on this measure with no respondents citing security as a deterrent to investment in these provinces.

**Table 14: Security**

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 44% | 48% | 7% | 0% | 0% |
| | British Columbia | 47% | 47% | 7% | 0% | 0% |
| | Manitoba | 13% | 88% | 0% | 0% | 0% |
| | Newfoundland & Labrador | 80% | 20% | 0% | 0% | 0% |
| | Saskatchewan | 38% | 57% | 5% | 0% | 0% |
| UNITED STATES | Alabama | 60% | 20% | 20% | 0% | 0% |
| | Alaska | 57% | 29% | 14% | 0% | 0% |
| | California | 44% | 33% | 11% | 11% | 0% |
| | Colorado | 55% | 27% | 18% | 0% | 0% |
| | Kansas | 50% | 50% | 0% | 0% | 0% |
| | Louisiana | 50% | 42% | 8% | 0% | 0% |
| | Mississippi | 50% | 33% | 17% | 0% | 0% |
| | Montana | 42% | 50% | 8% | 0% | 0% |
| | New Mexico | 60% | 40% | 0% | 0% | 0% |
| | North Dakota | 50% | 43% | 7% | 0% | 0% |
| | Oklahoma | 64% | 29% | 7% | 0% | 0% |
| | Pennsylvania | 40% | 40% | 20% | 0% | 0% |
| | Texas | 63% | 33% | 4% | 0% | 0% |
| | Wyoming | 60% | 40% | 0% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 67% | 27% | 7% | 0% | 0% |

Note: Percentages may not add up to 100 due to rounding.

### *United States*

Four percent of respondents for Texas indicated that security was a deterrent to investment. Similarly, 7 percent of respondents for Oklahoma and North Dakota were deterred by security concerns. The worst performing US state was California where 22 percent of respondents were deterred by this factor.

### *Overall*

The percentage of respondents deterred by security is an area where many Canadian jurisdictions perform better than their US counterparts. The percentage of respondents deterred by security concerns was, on average, 4 percent for Canada compared to 10 percent for the United States.

## Land-related risks[8]

### *Uncertainty concerning disputed land claims and protected areas (see tables 15 and 16)*

### *Canada*

Two policy areas that continue to hamper investor perceptions of many Canadian jurisdictions are uncertainty concerning disputed land claims and uncertainty over which areas will be protected. Investors expressed significant concern over these factors for British Columbia, where 67 percent of respondents expressed uncertainty surrounding disputed land claims and 80 percent indicated that uncertainty over protected areas was a deterrent. In Alberta, 40 percent of respondents cited uncertainty concerning disputed land claims as a deterrent and 59 percent said uncertainty over protected areas was a deterrent.

Saskatchewan is the top performing province on uncertainty concerning disputed land claims: 19 percent of respondents cite this factor as a deterrent to investment in this province. At 20 percent of respondents deterred, Newfoundland & Labrador performs better on uncertainty concerning protected areas than Saskatchewan, for which 43 percent of respondents are deterred by this factor.

[8] This category was not included in the analysis discussed in Appendix 2. However, we did add it to this publication as investors in the Fraser Institute's mining and petroleum surveys (2018) consistently express concern over uncertainty about disputed land claims and protected areas.

## *United States*

In 2019, only 8 percent of respondents for Texas and 15 percent of respondents for Oklahoma said uncertainty concerning disputed land claims was a deterrent to investment. Further, 23 percent of respondents for Texas, 14 percent for Oklahoma, and 13 percent for Kansas indicated that uncertainty concerning protected areas was an issue. Alaska was the worst performer on uncertainty concerning disputed land claims: 50 percent of respondents said they were deterred by this factor in this state. Meanwhile, Pennsylvania was the worst performer in the United States on uncertainty concerning

### Table 15: Disputed Land Claims

1: Encourages investment; 2: Not a deterrent to investment; 3: Mild deterrent to investment; 4: Strong deterrent to investment; 5: Would not pursue investment due to this factor

| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 4% | 56% | 16% | 20% | 4% |
| | British Columbia | 7% | 27% | 13% | 47% | 7% |
| | Manitoba | 0% | 63% | 25% | 13% | 0% |
| | Newfoundland & Labrador | 20% | 60% | 20% | 0% | 0% |
| | Saskatchewan | 10% | 71% | 10% | 5% | 5% |
| UNITED STATES | Alabama | 40% | 20% | 40% | 0% | 0% |
| | Alaska | 0% | 50% | 50% | 0% | 0% |
| | California | 22% | 44% | 22% | 11% | 0% |
| | Colorado | 22% | 44% | 22% | 11% | 0% |
| | Kansas | 29% | 43% | 29% | 0% | 0% |
| | Louisiana | 42% | 25% | 25% | 8% | 0% |
| | Mississippi | 17% | 50% | 33% | 0% | 0% |
| | Montana | 27% | 45% | 27% | 0% | 0% |
| | New Mexico | 44% | 33% | 11% | 11% | 0% |
| | North Dakota | 23% | 54% | 23% | 0% | 0% |
| | Oklahoma | 23% | 62% | 15% | 0% | 0% |
| | Pennsylvania | 20% | 40% | 20% | 20% | 0% |
| | Texas | 38% | 54% | 8% | 0% | 0% |
| | Wyoming | 33% | 56% | 11% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 36% | 64% | 0% | 0% | 0% |

Note: Percentages may not add up to 100 due to rounding.

protected areas: 83 percent of respondents for the state said they were deterred by this factor.

### *Overall*

Overall, investors expressed greater concern over uncertainty concerning disputed land claims and protected areas in Canada than the United States. On average, 37 percent of respondents for the Canadian provinces indicated that uncertainty concerning disputed land claims was deterring investment as compared to 27 percent for the United States. Further, 53 percent of respondents for the Canadian provinces, on average, indicated that uncertainty concerning protected areas was deterring investment, compared to 42 percent for the United States.

## Table 16: Protected Areas

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

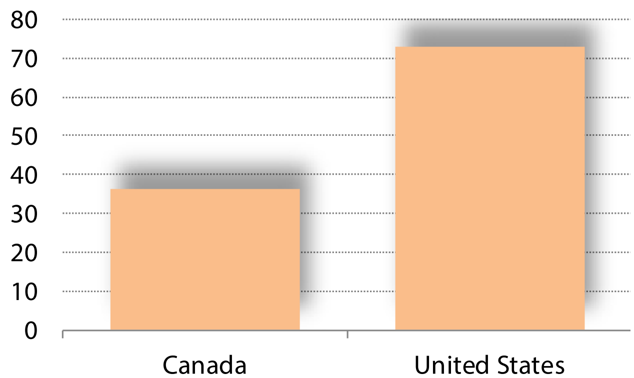
| | | Percentages | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 4% | 37% | 48% | 7% | 4% |
| | British Columbia | 0% | 20% | 40% | 33% | 7% |
| | Manitoba | 13% | 25% | 50% | 13% | 0% |
| | Newfoundland & Labrador | 0% | 80% | 0% | 20% | 0% |
| | Saskatchewan | 14% | 43% | 29% | 10% | 5% |
| UNITED STATES | Alabama | 14% | 43% | 43% | 0% | 0% |
| | Alaska | 13% | 13% | 50% | 25% | 0% |
| | California | 0% | 20% | 10% | 50% | 20% |
| | Colorado | 0% | 30% | 20% | 30% | 20% |
| | Kansas | 38% | 50% | 13% | 0% | 0% |
| | Louisiana | 19% | 38% | 44% | 0% | 0% |
| | Mississippi | 22% | 44% | 33% | 0% | 0% |
| | Montana | 30% | 20% | 40% | 10% | 0% |
| | New Mexico | 22% | 44% | 22% | 11% | 0% |
| | North Dakota | 29% | 57% | 14% | 0% | 0% |
| | Oklahoma | 36% | 50% | 14% | 0% | 0% |
| | Pennsylvania | 17% | 0% | 67% | 17% | 0% |
| | Texas | 37% | 40% | 23% | 0% | 0% |
| | Wyoming | 30% | 50% | 20% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 20% | 47% | 27% | 7% | 0% |

Note: Percentages may not add up to 100 due to rounding.

# Overview

Our analysis of the 2019 survey results indicates that there is more negative sentiment in Canada than in the United States about key factors driving petroleum investment decisions. In fact, as figure 7 illustrates, Canada's median Policy Potential Index score is less than half that of the United States, which demonstrates that the US has a significant advantage over Canada. Canada's score likely reflects a number of regulatory and tax changes in recent years that have resulted in a less competitive environment than is the case in many competing US jurisdictions.[9]

**Figure 7: Canada-U.S. Oil and Gas Investment Attractiveness, Median PPI Scores by Country**

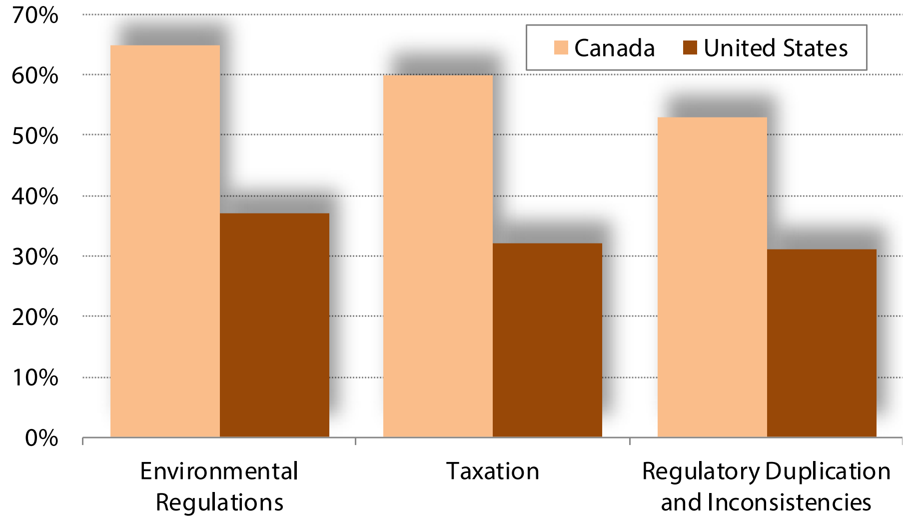



Investors perceive Canada's tax and regulatory environments as onerous compared to many competing US jurisdictions. When comparing countries based on the level of deterrence for each policy factor, investors cite Canada's uncertainty concerning environmental regulations, taxation in general, and regulatory duplication and inconsistencies as the top areas of concern (figure 8). On average, 65 percent of respondents for Canada are deterred by the country's environmental regulations, compared to 37 percent for the United States, a difference of 28 percentage points between regions. On average, 60 percent of respondents for Canada are deterred by taxation, compared to 32 percent for the United States, a difference again of 28 percentage points. Finally, on average, 53 percent of respondents for Canada are deterred by

[9] There are many potential reasons for investors to perceive Canada's investment attractiveness as declining. Some factors include insufficient pipeline capacity, the introduction of a carbon tax, Bills C-69 and C-48, and onerous regulations. Canada's recent policy and regulatory changes have been particularly damaging given that deregulation and sweeping tax reforms in the United States have significantly improved the business environment in that country, particularly for the oil and gas sector. Aliakbari (2019) discusses recent policy decisions that have affected Canada's investment attractiveness.

regulatory duplication and inconsistences compared to 31 percent for the United States, a difference of 22 percentage points between countries.

### Figure 8: Top Areas of Concern for Canada Compared to the US, Average Deterrence by Factor



# Appendix 1: Additional Data

Included below (table 17) are additional data that were included in the calculation of PPI scores but not discussed in the analysis section.

## Table 17: Quality of the Geological Database

1: Encourages investment
2: Not a deterrent to investment
3: Mild deterrent to investment
4: Strong deterrent to investment
5: Would not pursue investment due to this factor

| | | Percentile change | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CANADA | Alberta | 70% | 30% | 0% | 0% | 0% |
| | British Columbia | 73% | 27% | 0% | 0% | 0% |
| | Manitoba | 25% | 50% | 25% | 0% | 0% |
| | Newfoundland & Labrador | 40% | 40% | 20% | 0% | 0% |
| | Saskatchewan | 62% | 38% | 0% | 0% | 0% |
| UNITED STATES | Alabama | 50% | 50% | 0% | 0% | 0% |
| | Alaska | 29% | 71% | 0% | 0% | 0% |
| | California | 33% | 67% | 0% | 0% | 0% |
| | Colorado | 40% | 40% | 10% | 10% | 0% |
| | Kansas | 43% | 57% | 0% | 0% | 0% |
| | Louisiana | 69% | 31% | 0% | 0% | 0% |
| | Mississippi | 57% | 29% | 14% | 0% | 0% |
| | Montana | 36% | 55% | 9% | 0% | 0% |
| | New Mexico | 80% | 10% | 0% | 10% | 0% |
| | North Dakota | 54% | 46% | 0% | 0% | 0% |
| | Oklahoma | 57% | 36% | 7% | 0% | 0% |
| | Pennsylvania | 20% | 80% | 0% | 0% | 0% |
| | Texas | 61% | 39% | 0% | 0% | 0% |
| | Wyoming | 60% | 40% | 0% | 0% | 0% |
| | US Offshore—Gulf of Mexico | 64% | 36% | 0% | 0% | 0% |

Note: Percentages may not add up to 100 due to rounding.

# Appendix 2: Previous Methodology and Additional Sub-Indices

The methodology previously used to calculate the PPI in 2015 is as follows. For each jurisdiction, we calculated the percentage of negative scores for each of the 16 factors. We then developed an index for each factor by assigning the jurisdiction with the highest percentage of negative responses a value of 100, and correspondingly lower values to the other jurisdictions according to their scores. Upstream investors consider jurisdictions with the lowest index values the most attractive, and thus rank them above jurisdictions that scored higher as a consequence of having greater proportions of negative scores.

The Policy Perception Index value (referred to in surveys prior to 2013 as the All-Inclusive Composite Index) for each jurisdiction is derived from the equally-weighted scores achieved on all 16 factors. This index is the most comprehensive measure of the extent of policy-related investment barriers within each jurisdiction. Most of the discussion that follows is based on the jurisdictional scores and rankings obtained using this index. **A high score on this measure reflects considerable negative sentiment on the part of respondents and indicates that they regard the jurisdiction in question as relatively unattractive for investment.**

In previous surveys we also included three additional sub-indices that focused on particular dimensions of policy, such as the regulatory climate and perceptions of geopolitical risk. In order to streamline the report and in response to feedback from respondents, we did not calculate these separate indices last year or this year. However, below are descriptions of the indices and which measures would be used to calculate them. For those wishing to calculate these additional indices, all data from the survey is made publically available at www.fraserinstitute.org.

### *Commercial Environment Index*

The Commercial Environment Index ranks jurisdictions on five factors that affect after-tax cash flow and the cost of undertaking petroleum exploration and development activities:

- fiscal terms
- taxation in general
- trade barriers
- quality of infrastructure
- labor availability and skills

The scores for the Commercial Environment Index for each jurisdiction were calculated by averaging the negative scores for each of these five factors. A high index value indicates that industry managers and executives consider that the business conditions reflected in this measure constitute significant barriers to investment.

### *Regulatory Climate Index*

The Regulatory Climate Index reflects the scores assigned to jurisdictions for the following six factors:

- the cost of regulatory compliance
- regulatory enforcement
- environmental regulations
- labor regulations and employment agreements
- regulatory duplication and inconsistencies
- legal system

A relatively high value on the Regulatory Climate Index indicates that regulations, requirements, and agreements in a jurisdiction constitute a substantial barrier to investment, resulting in a relatively poor ranking.

### *Geopolitical Risk Index*

The Geopolitical Risk Index represents scores for political stability and security. These factors are considered to be more difficult to overcome than either regulatory or commercial barriers, because for significant progress to be made on them, a change in the political landscape is usually required. A high score on the Geopolitical Risk Index indicates that investment in that jurisdiction is relatively unattractive because of political instability and/or security issues that threaten the physical safety of personnel or present risks to an investor's facilities.

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