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# ABOUT THE ASIA PACIFIC FOUNDATION OF CANADA

The Asia Pacific Foundation of Canada (APF Canada) is dedicated to strengthening ties between Canada and Asia with a focus on expanding economic relations through trade, investment, and innovation; promoting Canada's expertise in offering solutions to Asia's climate change, energy, food security, and natural resource management challenges; building Asia skills and competencies among Canadians, including young Canadians; and improving Canadians' general understanding of Asia and its growing global influence.

APF Canada is well known for its annual national opinion polls of Canadian attitudes regarding relations with Asia. APF Canada places an emphasis on China, India, Japan, and South Korea, while also developing expertise in emerging markets in the region, particularly economies within the Association of Southeast Asian Nations.

Visit APF Canada at www.asiapacific.ca.

## ABOUT THE NATIONAL OPINION POLL

Since 2004, the Asia Pacific Foundation of Canada has been conducting regular nationwide surveys to assess Canadians' attitudes toward countries in the Asia Pacific, and their perceptions of Canada-Asia relations. Unique in its construction and its objectives, APF Canada's National Opinion Poll has been instrumental in drawing a portrait of Canadians' perspectives on Asia and the region's increasing relevance to Canada's prosperity.

The 2019 National Opinion Poll: Canadian Views on High-Tech Investment from Asia is the first thematic survey of the year with a focus on Asian direct investment in the Canadian high-tech sector. With a representative sample of the Canadian population, the objectives of this poll are three-fold:

- 1. To gauge Canadian attitudes toward inbound foreign direct investment, especially from different Asian economies, into the high-tech sector;
- 2. To examine factors (country, mode of investment, sector, perceived risks and benefits, etc.) that shape these attitudes; and
- 3. To inform public policy on engaging Asia in the high-tech sector.

## **FOREWORD**

For the past 15 years, the Asia Pacific Foundation of Canada has conducted regular nation-wide surveys to assess Canadians' attitudes toward, and perceptions of, Canada-Asia relations. Not only does the National Opinion Poll (NOP) serve as a valuable source of information on Canadian perspectives on the rise of Asia and its importance to Canada's economic well-being, but it also provides a unique tool for our nation's policy-makers.

Every year, the NOP gauges Canada's broader views on Asia, as well as polling Canadians on specific areas of interest, including views from specific cohorts, on particular economies, and on specific aspects of the Canada-Asia trade and investment dynamic.

This is the first of two polls in 2019, and it targets Canadian views on high-tech investment from Asia, and in particular, investment from China. Our second poll will focus on human capital, gauging Canadians' attitudes toward skilled workers and foreign talent.

Given the federal government's investment in the Canada Innovation Superclusters Initiative and other innovation policy issues, we feel this poll on high-tech foreign investment is particularly timely. It clearly demonstrates that Canadians acknowledge and understand the pivotal role Asia will play in global innovation and advancement, but highlights areas and issues of concern that will demand further public policy considerations.

I would like to acknowledge and thank the members of our APF Canada research team who are responsible for collating our survey data and finalizing this report, in particular Yushu Zhu, our Program Manager, Surveys and Polling, who oversaw this important project.

#### Stewart Beck,

President and CEO, Asia Pacific Foundation of Canada

## **EXECUTIVE SUMMARY**

While Canada boasts a vibrant and diverse tech sector, many Canadian high-tech businesses still face challenges such as barriers to scaling up, accessing capital, and/or developing human capital. The rise of Asia as a technological powerhouse and as a source of growing outbound foreign direct investment (FDI) underscores the importance of the region to Canada's high-tech businesses and overall economic growth. As the U.S.-China tech war and the global Huawei crisis continue, however, Canada finds itself at a crossroads of how to tap into the vast potential of Asian markets while safeguarding national security and Canadian values, particularly when it comes to China, which has entrenched itself as a global disruptor in the high-tech space.

Against this backdrop, the 2019 National Opinion Poll: Canadian Views on High-Tech Investment from Asia aims to understand Canadian attitudes toward Asian FDI in the Canadian high-tech sector, key drivers of these attitudes, and the expected role of the government in engaging Asia in the sector.

## 10 key takeaways from the poll:

Canadians have an optimistic outlook of Asia as a future forerunner and source of capital in innovation and technology. Seven in 10 Canadians believe Asia will be driving global innovation and technological advancement in 10 years, and 66% think that Asia will outperform the United States to become a more important source of capital in Canada's high-tech sector over that same period. Half of Canadians also see the high-tech sector as a key driver of the Canadian economy.

This optimistic outlook does not translate into favourable views of Asian FDI in Canada's high-tech sector. Over half of Canadians disagree that the potential benefits of having more high-tech-oriented Asian investment in Canada outweigh the potential risks. A slim majority (56%) would also oppose having more FDI from Asian economies enter the high-tech sector, although the opposition is weaker for high-tech compared with strong opposition (over 65%) for both the financial services and non-renewable energy sectors.

Canadians tend to perceive "too much" as opposed to "too little" high-tech FDI from China, India, and the U.S. A significantly higher percentage of people believe that Canada is allowing in too much investment from these three countries compared to those

who think the government is allowing in too little. For Australia, the European Union, the United Kingdom, and Japan, meanwhile, Canadians are more likely to perceive too little than too much investment into Canada.

Canadians are more open to Asian FDI in the digital media, cleantech, and life science sectors than in information and communication technology (ICT) and artificial intelligence (AI). The subsector receiving investment is an important factor in public attitudes toward high-tech investment from China and India. Support for Chinese investment drops from 34% in digital media to 16% and 15% in AI and ICT, respectively, while India's support rate drops from 42% in digital media to 28% in AI. Support for high-tech investment from Japan and Australia, meanwhile, remains high for all subsectors.

Joint ventures with Canadian firms and funding high-tech research and education programs are the most welcomed modes of Asian investment in Canada's high-tech sector. Japan, India, and China all receive strong support for investment through these channels, ranging from 43% support for China to 67% support for Japan. In contrast, greenfield and brownfield investments are much less welcomed.

Among selected factors on public attitudes toward high-tech FDI, the most influential ones are country of origin, subsector, and access to information addressing public concerns. Statistical modelling shows that "China" and "telecommunications" are driving the skepticism around FDI in the high-tech sector. Public information addressing concerns around national security and economic benefits of an investment is conducive to significant mitigation of that skepticism. Mode of investment (greenfield versus brownfield) and ownership structure (state-owned versus privately owned), although also important factors, carry less weight in shaping public opinion.

Canadians associate different benefits and risks with high-tech FDI from China, Japan, India, and the U.S. Job creation is one of the top benefits associated with receiving investment from these four countries. Other top benefits include access to capital (China, U.S.), access to foreign markets (China, India), access to high-tech talent (Japan, India), and know-how transfer into Canada (Japan, U.S.). Concerns around Chinese investment are all security-related – i.e. national security, cyber security, and intellectual property infringement. People also associate "risks to cyber security" with Indian investment and "foreign influences on Canadian values" with U.S. investment. Japanese, Indian, and U.S. investment is also associated with increased foreign competition (Japan, India) and the transfer of high-tech talent (Japan, U.S.) or know-how (Japan, India) outside Canada.

There is public trust in Canadian regulations related to data and privacy protection, but a lack of confidence in the government's risk-benefit assessment of foreign investments. Half of Canadians think Canada has strong regulations to protect individuals' data and privacy. But over half (54%) are not confident that the government performs a balanced review of the risks and benefits of prospective investment projects, and the vast majority (81%) desire a more open and transparent national security review process.

Canadians would support a proactive government in shaping global norms on technology use and deepening engagement with Asia in the high-tech sphere through research and education. The vast majority (87%) of Canadians would like to see the government play a proactive role in "shaping a global norm on responsible and accountable use of advanced technologies." Meanwhile, the public would welcome public policies to support Canada-Asia partnerships/collaboration on innovation research (71%) and to encourage Asian investment into high-tech start-ups (53%).

There is a regional divide in public opinion on Asian FDI in the high-tech sector, with Quebec being the most positive and British Columbia the most negative. Quebecers hold more positive attitudes toward Asian high-tech investment across a number of metrics – they are the most supportive of having more Asian investment in the high-tech sector, less likely to see "too much" high-tech investment from China, and less likely to oppose relieving restrictions on high-tech FDI. In contrast, British Columbians show the strongest skepticism toward high-tech-oriented FDI from Asia, with the most skeptical view of potential benefits of Asian investment and the strongest opposition to relaxing restrictions on high-tech FDI.

# OVERALL FEELINGS ON ASIA AND HIGH-TECH FDI

Overall, Canadians are optimistic about Asia's innovation performance and the region's importance for the Canadian high-tech sector; yet they also show skepticism about technology-oriented Asian investment into Canada.

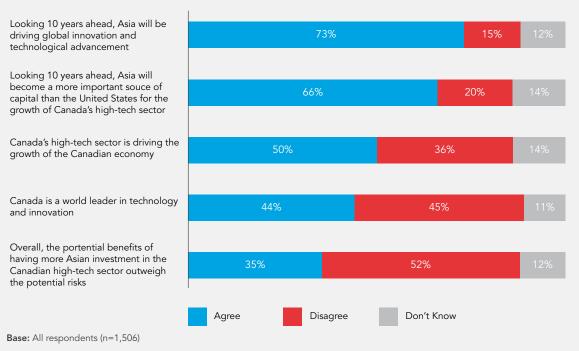
Canadians see Asia as central to technology and innovation yet are concerned with the potential risks of having more high-tech FDI from Asia into Canada.

Asia is seen by the majority of Canadians as a future forerunner in innovation and technology and an important source of capital for the Canadian high-tech sector. Seventy three percent agree with the statement that "looking 10 years ahead, Asia will be driving global innovation and technological advancement" and 66% agree that "Asia will become a more important source of capital than the United States for the growth of Canada's high-tech sector."

In contrast, Canadians hold a more modest view of Canadian performance in technology and innovation. While Canada ranks 18 out of the 126 countries in the Global Innovation Index 2018, the public is divided (44% agree; 45% disagree) on whether Canada is a world leader in technology and innovation. However, most Canadians do recognize the importance of technology/innovation in the Canadian economy, with 50% saying that the high-tech sector is driving Canada's economic growth.

Despite the overall optimism about Asia in technology and innovation, Canadians remain skeptical of the potential benefits Canada can get from technology-oriented Asian investment. About half (52%) of Canadians disagree that having more Asian FDI in the Canadian high-tech sector would involve more benefits than risks, compared with 35% who agree.

# A positive outlook of Asia in technology and innovation yet skeptical views of the potential benefits of having more high-tech-oriented Asian FDI



 $\textbf{Question:} \ \ \text{Do you agree or disagree with the following statements regarding Canada's high-tech sector?}$ 

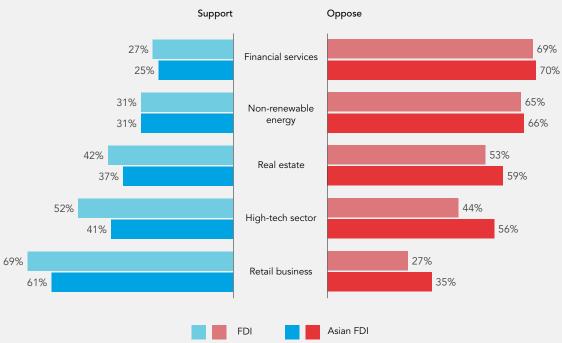
Public support for having more Asian investment in the high-tech sector is weaker than in the retail sector, but stronger than in financial services, non-renewable energy, and real estate.

Is public sentiment toward Asian FDI in Canada's high-tech sector reflective of public perceptions of "Asia," or of FDI in the high-tech sector generally? To address these questions, we conducted a split-sample survey experiment. Specifically, the national sample was split into two sub-samples that are equally representative of the Canadian population by region, gender, and age. Subgroup 1 was asked one question about overall FDI in different sectors: "Would you support or oppose the Canadian government allowing more foreign direct investment in the following sectors?" and Subgroup 2 was asked specifically about FDI from Asia: "Would you support or oppose the Canadian government allowing more foreign direct investment from Asian economies in the following sectors?"

Across different sectors, both groups are the most supportive of FDI in retail businesses with over 60% in favour. In contrast, the great majority (over 65%) of both groups disapproves of having more FDI in the sectors of financial services and non-renewable energy.

While the attitudes of the two groups converge in non-renewable energy and financial services, significant between-group differences exist in the sectors of retail, high-tech, and real estate. Having "Asia" in the question seems to amplify concerns over foreign investment into these sectors – Subgroup 2 with the "Asia" question reported less support and more opposition for all three sectors. The high-tech sector sees the biggest differences between the two groups. Fifty-two percent of Subgroup 1 would support more FDI in the high-tech sector and 44% would oppose; in contrast, responses from Subgroup 2 (with the Asian FDI question) reverse, with 41% in support and 56% opposed. The contrasting attitudes between the two groups suggests a heightened sensitivity toward Asian investment in the high-tech sector. As this report will subsequently discuss, the ongoing Huawei crisis and the growing global anxiety about potential security risks posed by the Chinese tech firm may be influencing public perceptions of high-tech-oriented FDI from Asia more generally.

### Canadians have moderate opposition to Asian FDI in the high-tech sector



Base: Subgroup 1 FDI (n=753) & Subgroup 2 Asian FDI (n=753)

Question: Subgroup 1: Generally speaking, would you support or oppose the Canadian government allowing more foreign direct investment into the following sectors? Subgroup 2: Generally speaking, would you support or oppose the Canadian government allowing more foreign direct investment from Asian economies (e.g. Japan, South Korea, India, China) into the following sectors?

Note: Percentages of "Don't know" not shown

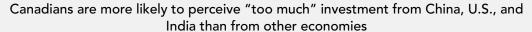
# DISSECTING PUBLIC OPINION ON ASIAN HIGH-TECH INVESTMENT

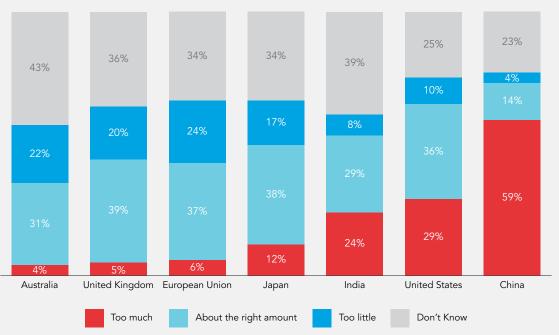
Analyses in the subsequent sections reveal a more complex picture of Canadian views, which vary with the origin country of investors, mode of investment, ownership structure, and perceived outcomes.

Canadians are more likely to perceive that Canada receives "too much" high-tech investment from China, the U.S., and India than from Japan, the EU, the U.K., and Australia.

When asked whether they think Canada has "too much," "about the right amount," or "too little" investment in the high-tech sector from each of the listed economies, 59% of Canadians say there is too much investment from China, substantially higher than the U.S. (29%) and India (24%), the other two countries that top the list. For Japan, the EU, the U.K., and Australia, Canadians are more likely to perceive that Canada receives "too little" than "too much" high-tech FDI from these countries.

Notably, a significant number (23%-43%) of the population indicates a lack of knowledge ("Don't know" responses) about this question. Similarly, 63% of the respondents say that they are "not very knowledgeable" or "not knowledgeable at all" about FDI in Canada. As our 2015 National Opinion Poll: Canadian Views on Asian Investment shows, a lack of information could create misperceptions and lead to ill-informed public opinion. This underscores the importance of accessible and transparent information for a better-informed public.





Base: All respondents (n=1,506)

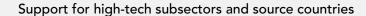
Question: Overall, do you think the Canadian government is allowing too much, too little, or about the right amount of foreign direct investment into the Canadian high-tech sector from each of the following economies?

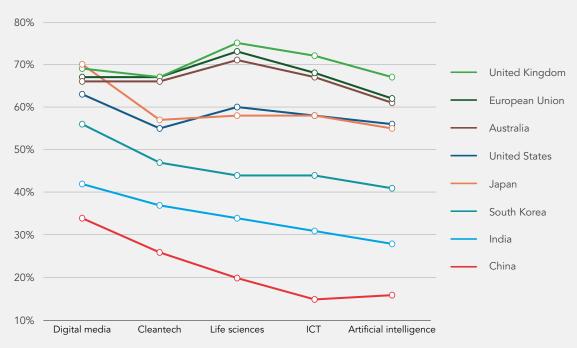
# Canadians show pan-sector support for investment from Australia and Japan; attitudes toward different subsectors vary substantially for China and India.

Regarding support for having more FDI in the five selected high-tech subsectors, digital media, cleantech, and life sciences overall receive more support than ICT and AI.

Specifically, for all subsectors, the U.K., the EU, and Australia tend to receive majority (over 60%) support, especially in life sciences with over 70% support. Japan and the U.S. follow with support rates between 55% and 60% for most subsectors. Notably, Japanese investment in digital media receives great majority support at 70%. Support for South Korea, India, and China spans a low of 15% for Chinese investment in ICT to a high of 56% for Korean investment in digital media.

Strong variations exist in attitudes toward FDI in different sectors for China and India. The support for Chinese investment drops from 34% in digital media to 16% and 15% in AI and ICT, respectively, while India's support rate drops from 42% in digital media to 28% in AI.





Base: All respondents (n=1,506)

**Question:** If the Canadian government were to attract more direct investment into each of the following high-tech sectors, please choose from the list below countries that you would support the Canadian government allowing more investment from.

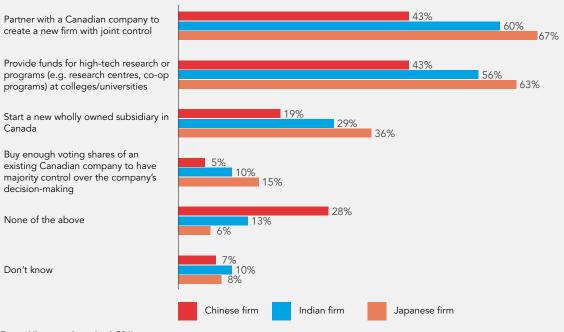
# Joint ventures or university research/education funding are the most favourable channels of technology-oriented Asian FDI.

Regardless of the source countries of an investment, Canadians are most comfortable with high-tech FDI through joint ventures with a Canadian firm (with support of 67%, 60%, and 43% for Japan, India, and China, respectively), or funding high-tech research or programs in higher education institutes (with support of 63%, 56%, and 43% for the three countries, respectively).

Greenfield investments – i.e. starting a new wholly-owned subsidiary in Canada – receive a modest level of support of 36% for Japan, 29% for India, and 19% for China. And company buyout receives the least support, ranging from 5% to 15% for the three countries.

Twenty-eight percent of Canadians say they would support none of the above modes of investment from a Chinese firm, as opposed to 13% for India and 6% for Japan.

# Joint ventures and research funds are the most welcomed investment modes in the high-tech sector



Base: All respondents (n=1,506)

Question: If the following companies were to invest in Canada's high-tech sector, please choose from the list below the modes of investment that you would support. Please choose all that apply.

## **EXPLAINING PUBLIC SENTIMENT**

To better understand the driving forces behind public opinion, in this section we disentangle effects of the confounding factors discussed earlier and examine what factors are most influential on public sentiment toward inward high-tech-oriented FDI. To do so, we implemented a conjoint survey experiment¹ to analyze how Canadians take into account different factors when evaluating an investment project. The factors assessed here are country of origin, mode of investment, high-tech subsector, ownership structure, and outcome.

In this experiment, respondents were asked to review three hypothetical FDI projects, randomly selected from 108 scenarios. These scenarios present different combinations of attributes related to the five factors – mode of investment (set up a wholly owned subsidiary in Canada; acquire a Canadian firm), high-tech subsector (the telecommunications sector; the animation sector; the cleantech sector), ownership structure (state-owned enterprise; privately owned enterprise), country (China; Japan; the U.S.), and outcome (has passed the national security review by the Canadian government; is estimated to create a significant number of jobs for the local community; none). Notably, in the *outcome* attribute, we assess whether providing information on potential outcomes of a project – i.e. the national security review results or job creation – is associated with public perceptions.

These scenarios were presented to respondents using the following vignette template.

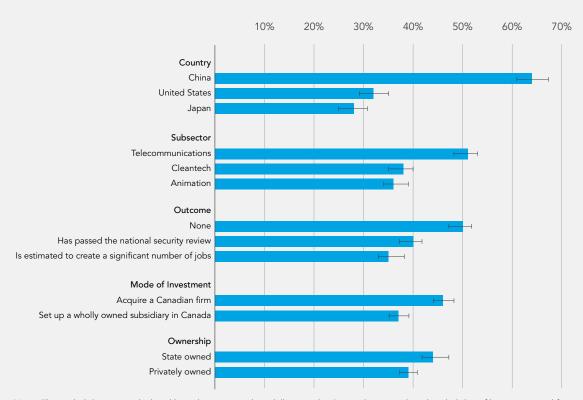
Company A/B/C is attempting to [mode of investment] in [high-tech subsector]. This company is a [ownership structure] based in [country]. This investment project [outcome].

Respondents were then asked to rate each project – support, oppose, or don't know. The 108 projects received a total of 4,518 ratings from the respondents.

Across the board, these hypothetical projects received 44% of the votes in support, 42% in opposition, and 14% don't knows. In order words, overall, the probability of a project being opposed is about 42%, compared with 58% for non-opposition. To understand what is driving public skepticism of Asian investment in the high-tech sector, we performed statistical modelling to predict the probability of a hypothetical project being opposed based on each specific attribute. The overall results are presented in the following chart. Separate charts for different factors are also presented.

<sup>&</sup>lt;sup>1</sup> "Conjoint survey experiment" is a statistical technique to determine what factors are most influential on respondent choice or decision-making. The implicit impact of a factor is determined by examining how people make choices or preferences between hypothetical scenarios/projects with a combination of different factors of research interest.

## Predicted probability of an investment project being opposed



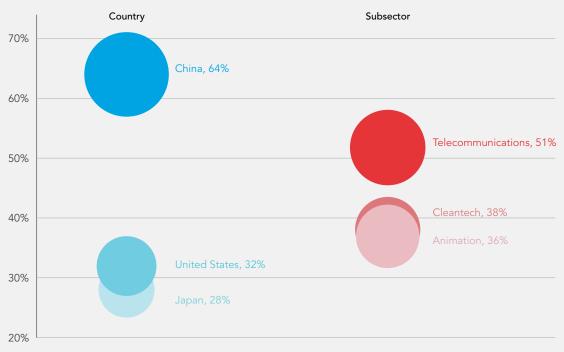
**Note:** The probabilities are calculated based on statistical modelling results. Bars indicate predicted probability of being opposed for a project with each attribute; lines indicate we are 95% confident that the prediction falls within the range of values indicated.

# "China" and "telecommunications" are driving the skepticism about FDI in Canada's high-tech sector.

The highest probability of a project being opposed is when the investor is from China (64%), followed by when the investment is in telecommunications (51%). The high profile of the Huawei case and the controversies it aroused around 5G and telecommunications security could have contributed to the sentiment. Among all factors, the source country exerts the strongest effect – Chinese investment is 36 percentage points more likely to be opposed than Japanese investment, and 32 percentage points more than U.S. investment.

The subsector also shows significant impact on respondents' assessments, although the effect is weaker than the country factor. The probability of opposition to a project in the telecommunications sector (51%) is substantially higher than one in animation (36%) or one in cleantech (38%). The gap between telecommunications and the other two subsectors is even more pronounced for Chinese investment, with that gap rising to 20 percentage points.

# Predicted probability of a project being opposed based on the "country" factor and the "subsector" factor



Note: The probabilities are calculated based on statistical modelling results, controlling for the effects of other factors.

# Access to information on potential outcomes shapes public opinion on FDI in Canada's high-tech sector.

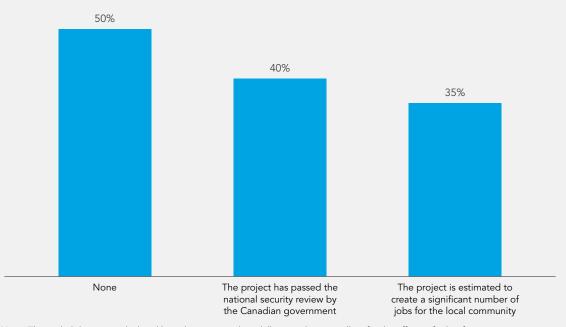
Another important factor that influences public opinion is access to information on a project regarding national security review and job creation. The probability of opposition to a project drops substantially from 50% when no information is available to 40% when the message was given that the project passed the national security review, and further down to 35% when the message states that the project is believed to lead to significant job

creation. With telecommunications, the probability drops from 61% (no information) to 48% (passed security review) and 43% (potential job creation). Interestingly, in all cases, the message about job creation carries slightly more weight than that about the national security review, with a five-point difference.

The information effect is especially strong for China – the probability of a Chinese project being opposed dropped by 13 percentage points when respondents were told that it passed the national security review, and by 14 percentage points when they were told it is believed to create a significant number of jobs.

These results imply that information that addresses public concerns around potential outcomes of a project – e.g. national security and economic benefits – is conducive to correcting misperceptions and shaping well-informed public opinion, especially in a sensitive sector like telecommunications and for less favoured economies.

## Predicted probability of a project being opposed based on the "outcome" factor



Note: The probabilities are calculated based on statistical modelling results, controlling for the effects of other factors.

# Mode of investment and ownership structure of the investing entity contribute less to public opinion compared with other factors.

In comparison, mode of investment (greenfield versus brownfield) and ownership structure of the investor (state owned versus privately owned) are minor factors influencing public attitudes toward FDI in the high-tech sector. Overall, a brownfield project is nine percentage points more likely to be opposed than a greenfield project, and investment by a state-owned enterprise (SOE) is five points more likely to be disapproved.

Interestingly, the marginal effects of these two factors are smaller for Chinese investment, although both are statistically significant. People are six percentage points more likely to oppose comparing a brownfield investment (i.e. company buyout in this study) against a greenfield investment, and comparing an SOE investment against a private investment. These results suggest that private investment does not help much in alleviating public skepticism against Chinese investment, which is more rooted in concerns around national security and economic outcomes.

# Predicted probability of a project being opposed based on "mode of investment" and "ownership"



Note: The probabilities are calculated based on statistical modelling results, controlling for the effects of other factors.

## Canadians associate tech-oriented FDI from different economies with different benefits and risks.

To probe further on perceptions of FDI from different source countries, we asked respondents what the greatest benefits and the greatest risks they think are associated with having more high-tech-oriented FDI from China, Japan, India, and the U.S., respectively.

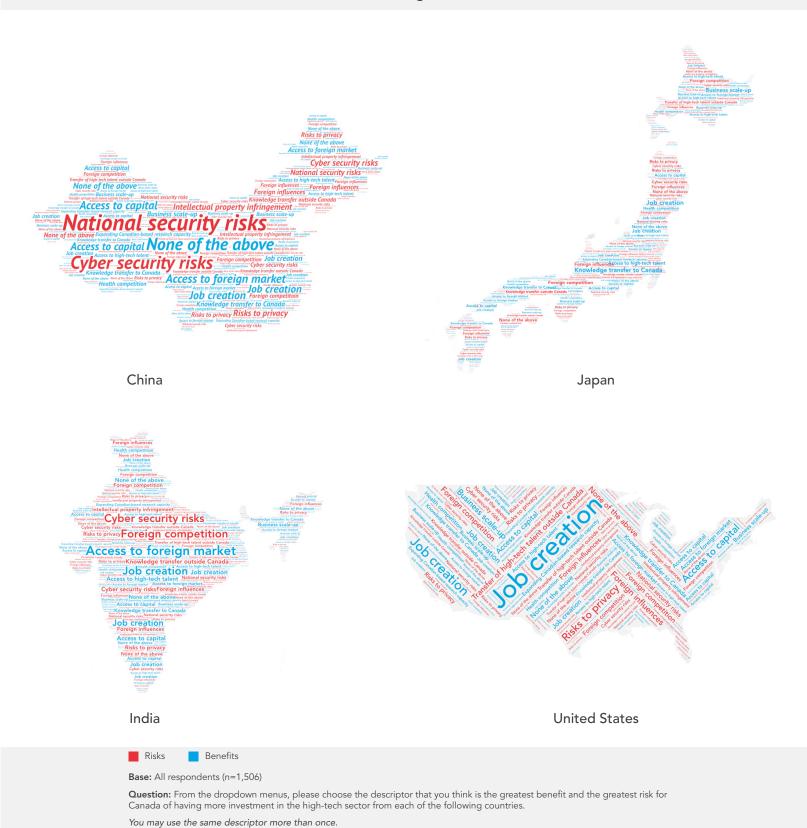
Canadians believe that Chinese investment is most likely to benefit Canada in economic terms. The top three benefits associated with Chinese investment are "access to foreign markets for Canadian businesses" (16%), "access to capital for Canadian high-tech businesses" (15%), and "job creation" (15%). A higher percentage (18%) of respondents also says "none of the above," compared with the other countries. The biggest concerns about Chinese investment stem from "risks to national security" (31%), "risks to cyber security" (20%), and "intellectual property infringement" (12%).

Benefits associated with Japanese investment are often perceived to be about knowledge and talent transfer – the top three descriptors for perceived benefits are "transfer of new technologies and knowledge into Canada" (26%), "access to high-tech talent for Canadian high-tech businesses" (13%), and "job creation" (12%). Risks are most likely to be increased competition for Canadian domestic firms (26%), followed by the transfer of technology/knowledge (12%) and high-tech talent (12%) outside Canada.

Regarding Indian investment, access to foreign markets (19%), job creation (15%), and access to high-tech talent (11%) are the most highly expected benefits, while perceived risks are more likely to involve foreign competition for domestic businesses (15%), cyber security (14%), and the transfer of technology/knowledge outside Canada (12%).

Benefits from U.S. investment in the high-tech sector is most likely to be job creation (20%), access to capital (17%), and the transfer of new technologies and knowledge (12%) into Canada. However, people are concerned that having more U.S. investment may drive high-tech talent outside Canada (20%), increase foreign competition for domestic firms (17%), and introduce foreign influences on Canadian values (15%).

## Perceived benefits and risks of high-tech-oriented FDI from...



**Note:** The relative size of a descriptive term indicates its frequency of responses from the survey. Repetition of terms is used to fill the map and not associated with actual responses. Blue indicates the greatest benefit; red indicates the greatest risk. Percentages of

"Don't know" not shown.

## **ROLE OF GOVERNMENT**

Canadians believe Canada has strong regulations on data and privacy protection but are not confident that the government is doing a balanced review of the risks and benefits of foreign investments.

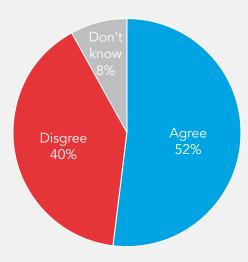
Canadians in general trust the domestic regulatory framework for protecting data security. About half of Canadians agree that "Canada has strong regulations that protect an individual's privacy, personal information, and data ownership," as opposed to 40% who disagree.

However, when it comes to national security reviews and net-benefits assessments that apply to certain FDI projects, 54% of Canadians say they are not confident that "the government is doing a balanced assessment in reviewing the risks and benefits of foreign investments," in contrast with 39% who say they are confident. As such, there is strong support for a more open and transparent process of national security review with 81% in support. This echoes previous findings and points to the importance of accessible and transparent information on foreign investments.

<sup>&</sup>lt;sup>2</sup> The *Investment Canada Act* stipulates that the government may "commerce" a national security review when it has "reasonable grounds" to believe a foreign investment could be "injurious to national security," and that foreign investors seeking to acquire Canadian companies exceeding a certain value threshold must demonstrate net benefits to Canada.

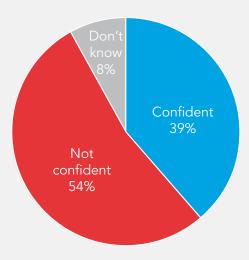
Canada has strong regulations that protect an individual's privacy, personal information, and data ownership The Canadian government is doing a balanced assessment in reveiwing the risks and benefits of foreign investments

Support for a more open and transparent national security review process



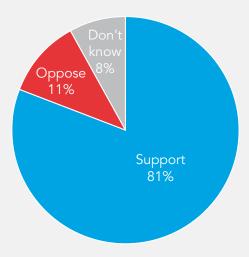
Base: All respondents (n=1,506)

Question: Do you agree or disagree with the following statements regarding Canada's high-tech



Base: All respondents (n=1,506)

Question: Certain foreign investments are subject to national security review and review of net benefits to Canada by the Canadian government. Are you confident or not confident that the Canadian government is doing a balanced assessment in reviewing the risks and benefits of foreign investments?



Base: All respondents (n=1,506)

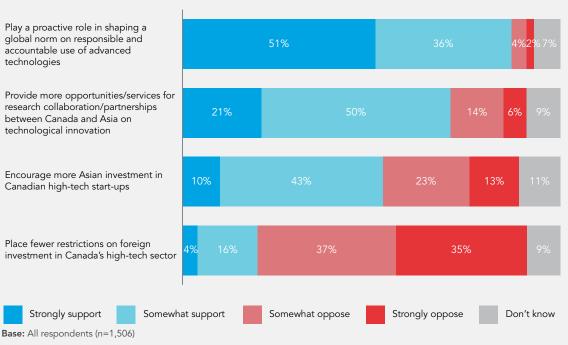
**Question:** Regarding Canada's role in the global hightech sector, would you support or oppose that the Canadian government be more open and transparent in the national security review process?

Canadians would like to see the government play a proactive role in shaping a global norm on technology use while deepening engagement with Asia in the high-tech sector.

Regarding public policy about engagement with the world in the high-tech sector, the overwhelming majority of Canadians think the government should "play a proactive role in shaping a global norm on responsible and accountable use of advanced technologies" (87% support). The great majority (72%) would also oppose the government relaxing restrictions on FDI in the high-tech sector.

When it comes to engagement with Asia, most Canadians would support policies to "provide more opportunities or services" for innovation research partnerships between Canada and Asia (71% support). A smaller share, yet still over half (53%), would support the government if it were to "encourage more Asian investment into Canadian high-tech start-ups."

## Canadian views on public policy for the high-tech sector



Question: Regarding Canada's role in the global high-tech sector, would you support or oppose the Canadian government if it were to...

## REGIONAL DIFFERENCES

Although Canadian opinions show more convergences than divergences over Asian investment in Canada's high-tech sector, some variances exist among the provinces/regions. This section highlights regional differences that are worth noting.

For the purpose of regional analysis and in view of the sample size, some provinces/territories were collapsed into one region, resulting in the following provinces/regions:

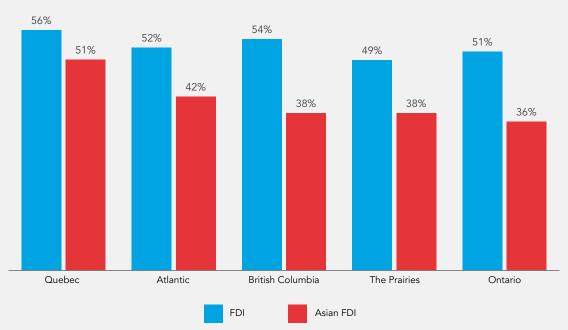
- British Columbia
- The Prairies Alberta, Saskatchewan, and Manitoba
- Ontario
- Quebec
- Atlantic New Brunswick, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador

Northern Canada (Yukon, Northwest Territories, and Nunavut) had only four respondents; therefore, they were removed from the analysis.

Quebecers are the most open to more high-tech-oriented FDI from Asia.

While all provinces/regions see a drop in support for having more Asian FDI as opposed to general FDI in the high-tech sector, Quebec stands out with the highest support rate (51%), indicating the relative openness of this region compared with the rest of the country.

## Quebec most supportive of Asian FDI in high-tech



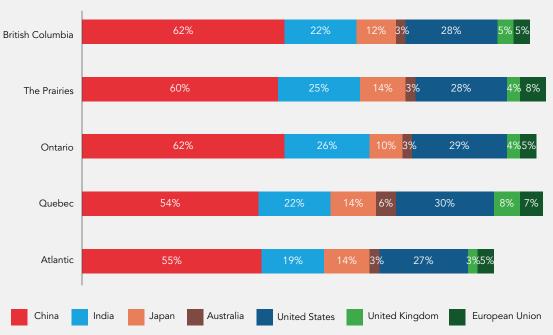
Base: Subgroup 1 FDI – Quebec (n=182); Atlantic (n=46); British Columbia (n=91); The Prairies (n=119); Ontario (n=208) Subgroup 2 Asian FDI – Quebec (n=169); Atlantic (n=55); British Columbia (n=114); The Prairies (n=146); Ontario (n=268)

Question: Subgroup 1: Generally speaking, would you support or oppose the Canadian government allowing more foreign direct investment into the following sectors?

Subgroup 2: Generally speaking, would you support or oppose the Canadian government allowing more foreign direct investment from Asian economies (e.g. Japan, South Korea, India, China) into the following sectors?

Considering the significant "China" impact on public opinion toward Asian investment in this poll, the more positive views of Quebecers toward Asian FDI could be because of their less negative views of Chinese investment – Quebecers are less likely than non-Quebecers to perceive "too much" high-tech investment from China (54% versus the national average of 59%) and less likely to associate Chinese investment with national security risks (22% versus 31% at the national level).

# Percent agree that the Canadian government is allowing too much FDI in the high-tech sector from...



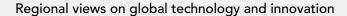
Base: British Columbia (n=206); The Prairies (n=265); Ontario (n=576); Quebec (n=350); Atlantic (n=102)

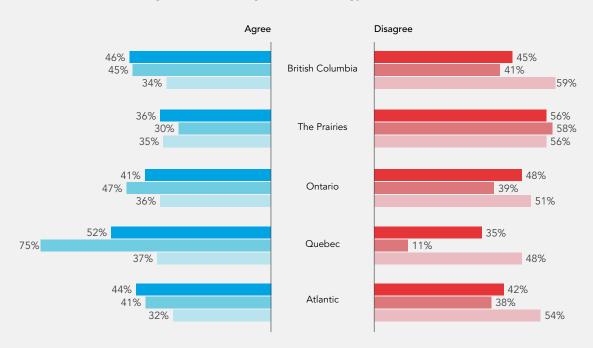
Question: Do you think the Canadian government is allowing too much, too little, or about the right amount of foreign direct investment to the Canadian high-tech sector from each of the following economies?

# Regions divide on attitudes toward the roles of Canada and Asia in the high-tech sphere.

Across the country, Quebec is the most positive about Canada's leading role in technology and innovation (52% agree) and the significance of technology in driving the Canadian economy (75% agree), whereas the Prairies reflect the strongest opposition, with 56% (Canada's role) and 58% (economic driver) in disagreement.

The strongest skepticism about benefits associated with inbound Asian high-tech investment comes from the Prairies and British Columbia where 56% and 59% of the population, respectively, oppose the statement that "the potential benefits of having more Asian investment in the Canadian high-tech sector outweigh the potential risks." In contrast, Quebec sees the least opposition (48% disagree) to this statement.





Base: British Columbia (n=206); The Prairies (n=265); Ontario (n=576); Quebec (n=350); Atlantic (n=102)

Question: Do you agree or disagree with the following statements regarding Canada's high-tech sector?

Canada is a world leader in technology and innovation.

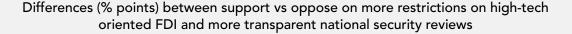
Canada's high-tech sector is driving the growth of the Canadian economy.

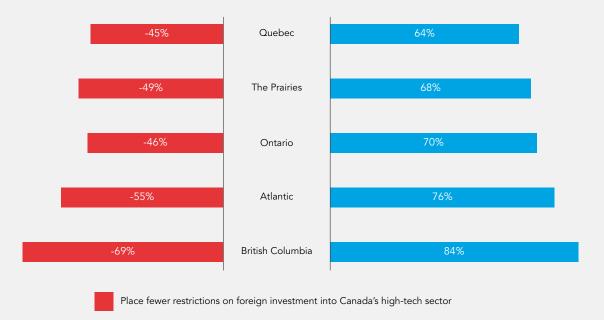
Overall, the potential benefits of having more Asian investment in the Canadian high-tech sector outweigh the potential risks.

 $\textbf{Note:} \ \mathsf{Percentages} \ \mathsf{of} \ "\mathsf{Don't} \ \mathsf{know}" \ \mathsf{not} \ \mathsf{shown}$ 

British Columbia is more likely to oppose easing restrictions on high-tech-oriented FDI and to support more transparency in national security reviews.

Among the regions, British Columbia has the strongest opinions in opposing more relaxed FDI restrictions (13% support, 82% oppose) and in supporting more transparency in the process of national security review (90% support, 6% oppose); Quebec, in comparison, holds the least strong opinions in these regards, with the smallest gaps between the support versus oppose groups for easing high-tech FDI restrictions (45 points) and for more transparent national security reviews (64 points). This is in line with the more positive views Quebecers have toward the potential benefits of Asian investment than British Columbians.





Base: British Columbia (n=206); The Prairies (n=265); Ontario (n=576); Quebec (n=350); Atlantic (n=102)

Be more open and transparent in the national security review process

Question: Regarding Canada's role in the global high-tech sector, would you support or oppose the Canadian government if it were to...

## **CONCLUSION**

As a powerhouse of technology and innovation and a vast source of capital, Asia has the potential to play a vital role in Canada's future. Canadians, however, remain cautious about engagement with Asia in the high-tech sector, the core economic driver of tomorrow. This is the key takeaway from APF Canada's 2019 National Opinion Poll: Canadian Views on High-Tech Investment from Asia.

As Canadians' anxiety toward China over the Huawei affair lingers, it is not surprising that this poll picks up on a sense of skepticism about Asian investment in Canada's high-tech sector, particularly with regard to both Chinese investment and the telecommunications sector. This, however, does not undermine the importance of Asia to Canada's investment diversification – there is a broad consensus that Asia will drive future technological advancement and become more important than the U.S. as a source of capital for Canadian tech business in the foreseeable future. The poll also reveals that there is a strong public desire to deepen engagement with Asia, including China, in innovation research and education. Several implications can be drawn from the results.

First, overall public sentiment toward Asian FDI in Canada's high-tech sector is impeded by the current heightened negativity toward China and as well as sensitivity around the telecommunications sector more generally. Recent surveys have shown a significant drop in Canadian warmth of feeling toward China over the past 16 months. Our analysis further demonstrates that the "China" factor and the "telecommunications" factor are the strongest in explaining public opposition toward FDI in the high-tech sector.

Second, engagement with different countries in technology needs to take into account different risk factors as public concerns vary with different countries. Traditional, likeminded allies like Australia and Japan are the most favoured sources of investment in Canadian high-tech. Concerns associated with high-tech-oriented FDI from these countries are more likely to be "increased foreign competition with domestic firms' and 'the transfer of talent or know-how outside Canada." China and India are less favoured source countries as they are often associated with risks to national security (China) or cyber security (China, India).

Third, a sector-wise approach for engagement prioritizing less sensitive subsectors may be preferred, especially for countries for which public sentiment is less positive. Digital media, life sciences, and cleantech are the most favoured areas for Asian FDI, while ICT

and AI are the least favoured. The between-sector gaps are more evident for China and India than for Australia, Japan, and South Korea.

Fourth, high-tech research and education boasts great potential for deepened investment relationships with Asia. Asian funding to university high-tech research or education programs receives widespread public support, and so do public policies to support such research collaboration/partnerships.

Finally, Canadian skepticism about Asian investment into the high-tech sector also reflects a sense of public distrust in the government as a gatekeeper of incoming investment able to safeguard Canadian interests. The public overall is not confident in the government's risks and benefits assessments of FDI projects. Indeed, Canadians would support a more transparent national security review process. Our analysis indicates that this might well include providing transparent information that adequately addresses public concerns about a specific project as a means of mitigating public skepticism.

In conclusion, this poll reveals the complexity and nuances underlying public skepticism toward Asian high-tech FDI in Canada. Our findings suggest that engagement with Asia in technology and innovation warrants a well-crafted agenda with a differentiated approach to individual economies and subsectors, as well as a transparent domestic regulatory environment to mitigate public concerns and skepticism.

## **METHODOLOGY**

APF Canada commissioned EKOS Research Associates to conduct a survey of 1,506 Canadian adults (permanent residents and citizens 18 years and older). The survey was conducted from February 4 to February 15, 2019, using EKOS's research panel, Probit. This panel offers coverage of the Canadian population accessible through internet, phone or cellphone. A random, stratified sample for this study was drawn from the panel database using random digit dialling. All data was collected online.

Considering potential inconsistent understandings of FDI and "high-tech sector" due to the complexity of the two concepts, before the survey questions we provided broad definitions of the two terms that are aligned with our understanding. The definitions are as follows:

"Below we would like to have your opinions about foreign direct investment into Canada. Foreign direct investment (FDI) in Canada is defined as a long-term or lasting-interest investment that allows an investor (i.e. a person or an entity) of another economy to have a significant degree of influence in the management of an enterprise in Canada. 'Significant degree of influence' usually means ownership of 10 per cent or more of the ordinary shares or voting power or the equivalent of an enterprise."

"Below we would like to ask your opinions on foreign direct investment in the Canadian high-tech sector. The high-tech sector encompasses industries that have high concentrations of employers in STEM (science, technology, engineering, and mathematics). Examples of the high-tech sector include, but are not limited to, information and communication technology, artificial intelligence, life sciences, cleantech, digital media, aerospace manufacturing, and scientific research and development."

The margin of error – which measures sampling variability – is  $\pm$  2.53% for the entire sample. The average completion time for the survey was 10 minutes. The results have been statistically weighted by EKOS according to the current census data on age, gender, and region to ensure the representativeness of the sample. Discrepancies in or between totals are due to rounding.

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