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Partnerships with China: At What Cost?

Lieutenant-Colonel Paul Mellema

JCSP 46 DL

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PARTNERSHIPS WITH CHINA: AT WHAT COST?

The government of China ...is pursuing a strategy for geopolitical advantage on all fronts – economic, technological, political, and military – and using all elements of state power to carry out activities that are a direct threat to our national security and sovereignty.

— David Vigneault, Director of the Canadian Security Intelligence Service, 9 February 2021.

Introduction

Canada and the People's Republic of China have a long-standing relationship that began in 1968 with Prime Minister Pierre Elliot Trudeau's decision to officially recognize People's Republic of China. He then supported China's membership in the United Nations.¹ While this did not occur until 1970, Canada was one of the first western countries to establish official ties with China. Many other countries swiftly followed.²

Following the official recognition of China, trade talks began, and Canada-China trade flourished.³ Over time this trade increased, and currently, China is Canada's second-largest trade partner, second only to the United States.⁴ However, trade is significantly imbalanced by USD 49.39 billion in favour of China.⁵

Soon after trade started flowing came reciprocal student exchanges. In 1973 the first group of Chinese students came to Canada.⁶ This was followed by a dramatic increase in Chinese students in 1979 when Canada lifted the initial restrictions on the exchanges. Most of these students targeted the science and engineering fields.⁷

¹ Jonathan Manthorpe, *Claws of the Panda: Beijing's Campaign of Influence and Intimidation in Canada*, (Toronto: Cormorant Books, 2009), 100.

² Manthorpe, *Claws*... 113.

³ Manthorpe, *Claws*... 121.

⁴ Trading Economics, "Canada: Economic Indicators." Accessed 25 April 2021.
<https://tradingeconomics.com/canada>

⁵ Trading Economics, "Canada: Economic Indicators." Accessed 25 April 2021.
<https://tradingeconomics.com/canada>

⁶ Manthorpe, *Claws*... 121-122.

⁷ Manthorpe, *Claws*... 123.

Currently, China is the second-largest source of foreign post-secondary students in Canada, with approximately 143,000 Chinese students studying in Canada in 2018.⁸

Throughout its engagement with China, Canada's primary focus has been Canada's economic benefit. China was a new market for Canadian products, a source of cheap products for the Canadian masses and student tuition for academic institutions. Canada ignored the potential secondary effects of this relationship with China. There was little or no thought of the national security implications of partnerships with Chinese companies, Chinese ownership of Canadian companies or Chinese academics embedded in Canada's research and science faculties.⁹

This focus on economics without regard for security has resulted in a situation where Canada is in a compromised position. It is losing ground in its research and innovation fields to China. To protect its national interests, Canada needs to grapple meaningfully with the threat of China's economic espionage and prioritize protective actions through improved awareness, legislation, and countermeasures.¹⁰

Canada at Risk

We are in a new industrial age, one where technology is rapidly driving change across all sectors, from farming to services to education.¹¹ Canada is in a race for innovation and technology to keep its economy strong and the country safe. It competes

⁸ Government of Canada, Global Affairs Canada, "Building on Success: International Education Strategy 2019–2024." Accessed 10 May 2021. <https://www.international.gc.ca/education/strategy-2019-2024-strategie.aspx?lang=eng#figure2>

⁹ Manthorpe, *Claws*... 124.

¹⁰ In this paper, the term economic espionage encompasses all activities to obtain information that may bring an economic or national security harm to Canada, whether held or developed by industry to academia. This follows the definition under the Security of Information Act. R.S.C., 1985, c. O-5.

¹¹ Innovation, Science and Economic Development Canada, "Innovation for a Better Canada: What We Heard," (Ottawa, Canada Communications Group, 2019), 4. Accessed 10 May 2021. https://www.ic.gc.ca/eic/site/062.nsf/eng/h_00102.html

with other nations for the newest technologies, the most talented people, and the fastest-growing companies.¹²

Canada's potential as a leader in technology and innovation is clear. It has a well-educated workforce, favourable immigration policies for the well-educated, and an established technology sector, which enjoys significant government support, including incentives for research and development (R&D).¹³ These combine to set the perfect conditions to foster innovation and technological development.

Congruently, Canada is a free and open society, welcoming investment and international students from around the globe and entering into many international collaborative ventures on both the academic and industry research fronts. Its openness and robust technology and innovation sectors make it a prime target for Chinese state sponsored economic espionage.¹⁴ This espionage has negative consequences for Canadian interests, both economically and militarily. China gains the latest technology or innovation that they would not typically have access to or developed quickly. This, in turn, allows them to exploit the military or economic benefits, potentially before Canada, without bearing any of the investment costs and time.

Why China is the Most Prominent Threat

¹² Ibid.

¹³ Richard Corley, "Canada's Future as a Global Leader in Technology", (White Paper, Goodmans LLP, 27 November 2017), 3. Accessed 10 May 2021 at <https://www.goodmans.ca/files/file/docs/P1544%20Goodmans%20Technology%20White%20Paper.pdf>; Innovation, Science and Economic Development Canada, "Innovation for a Better Canada..."..., 4.

¹⁴ Canadian Security and Intelligence Service, "Espionage and Foreign Interference,". Accessed 10 May 2021, <https://www.canada.ca/en/security-intelligence-service/corporate/espionage-and-foreign-interference.html>.

While other nations also engage in economic espionage, China is Canada's most pressing threat. In the February 2021 words of the current Director of the Canadian Security Intelligence Service (CSIS), "the Government of China...is pursuing a strategy for geopolitical advantage on all fronts – economic, technological, political, and military."¹⁵ China's rapid growth poses not just an economic threat but a military one as well.¹⁶ Lieutenant-General Wayne Eyre, the Acting Chief of Defence Staff, echoed this warning in April 2021. He raised the threat of China when he testified before the Senate Standing Committee on National Security and Defence. He stated that China's massive investments in new technologies and military capabilities, including quantum computing and artificial intelligence, are significant concerns.¹⁷ China taking the lead in technology and capabilities will put Canada and its partners in a situation of being militarily overmatched, both in quantity, but more importantly, the quality of these new capabilities.¹⁸

¹⁵ David Vigneault, (speech, Centre for International Governance Innovation, Ottawa, Canada, February 9, 2021. Accessed 10 May 2021. <https://www.canada.ca/en/security-intelligence-service/news/2021/02/remarks-by-director-david-vigneault-to-the-centre-for-international-governance-innovation.html>

¹⁶ Ibid.

¹⁷ Canada. Senate, The Standing Senate Committee on National Security and Defence., *Evidence*, no. 2, Monday, April 19, 2021. Accessed 10 May 2021.

<https://sencanada.ca/en/Content/Sen/Committee/432/SECD/02ev-55187-e> ; This is not just a Canadian issue, the United States is in a similar situation. Michael Brown and Pavneet Singh, *China's Technology Transfer Strategy: How Chinese Investments in Emerging Technology Enable A Strategic Competitor to Access the Crown Jewels of U.S. Innovation*, (Washington D.C.: Defense Innovation Unit Experimental, 2018). Accessed 10 May 2021.

[https://admin.govexec.com/media/diux_chinatechnologytransferstudy_jan_2018_\(1\).pdf](https://admin.govexec.com/media/diux_chinatechnologytransferstudy_jan_2018_(1).pdf)

¹⁸ This is not just a Canadian issue, the United States is in a similar situation. Michael Brown and Pavneet Singh, *China's Technology Transfer Strategy: How Chinese Investments in Emerging Technology Enable A Strategic Competitor to Access the Crown Jewels of U.S. Innovation*, (Washington D.C.: Defense Innovation Unit Experimental, 2018), 2-4. Accessed 10 May 2021.

[https://admin.govexec.com/media/diux_chinatechnologytransferstudy_jan_2018_\(1\).pdf](https://admin.govexec.com/media/diux_chinatechnologytransferstudy_jan_2018_(1).pdf)

China wishes to be a superpower, both militarily and economically. It has focused its attention on setting the conditions to achieve that goal. While China is a large country with a vast population, it historically lacked the necessary expertise in the science and technology fields. This lack of expertise stems from historical mistakes, such as the 'Great Leap Forward' under Mao, and in the more recent past, a brain drain of academics and technologists to less repressive and better-paying countries.¹⁹ For China to become an economic and military superpower, it needs to create a high technology and resource base to support it.

In 2015, China released its 'Made in China 2025' ten-year plan outlining its economic and industrial goals.²⁰ This plan focuses on ten key industries where it intends to dominate in these fields.²¹ The goal is to develop indigenous, high-tech capabilities and free itself from dependency on foreign technology.²² These capabilities would feed its growing domestic market and support its military capabilities.²³ In order to meet these goals, it needs to obtain the necessary technology and innovations.

How China Operates

China acquires access to sensitive Canadian technology and innovations by

¹⁹ Derek Adam Levine, "Made in China 2025: China's Strategy for Becoming a Global High-Tech Superpower and its Implications for the U.S. Economy, National Security, and Free Trade," *Journal of Strategic Security* 13, no. 3 (2020), 6. Accessed 10 May 2021. <https://search-proquest-com.cafvl.idm.oclc.org/docview/2485498166?pq-origsite=summon>

²⁰ James McBride and Andrew Chatzky, "Is 'Made in China 2025' a Threat to Global Trade?" *Council on Foreign Relations*, 13 May 2019,. Accessed 4 April 2021. <https://www.cfr.org/backgroundunder/made-china-2025-threat-global-trade>

²¹ Arati Shroff, "'Made in China 2025' Disappears in Name Only," *Indo Pacific Defence Forum*, 23 March 2020. Accessed 10 May 2021. <https://ipdefenseforum.com/2020/03/made-in-china-2025-disappears-in-name-only/>

²² Levine,... 5.

²³ Ibid.

various means. The first is through partnerships with or purchase of Canadian companies, either openly or through a proxy. A second is the obligation of Canadian companies operating in China to transfer technology to their Chinese partners, who are often state-owned enterprises.²⁴ A third means is through academic research, either through a researcher embedded in a Canadian institution who illicitly passes the intellectual property (IP) to China or by utilizing a partnership with Chinese research or academic institutions.²⁵ Next, there is the use of insiders in the industry or academic institutions who sell or pass the information or technology to China.²⁶ Lastly, there is the use of remote cyberattacks against industry or academia, with the information taken directly

²⁴ State owned enterprises are defined in the ICA as state-owned enterprise means the government of a foreign state (at any level of government), or an entity that is controlled or influenced, directly or indirectly, by a government or an individual who is acting under the direction of a government or agency referred to in paragraph (a) or who is acting under the influence, directly or indirectly, of such a government or agency.; Wendy Dobson, *Living with China : A Middle Power Finds Its Way*, (Toronto: University of Toronto Press, 2019), 112. Accessed 10 May 2021. <https://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/reader.action?docID=5878989>; Bob Carbaugh, and Chad Wassell, "Forced Technology Transfer and China." *Economic Affairs* 39, no. 3 (October 2019): 306–19, 310-311. Accessed 10 May 2021. doi:10.1111/ecaf.12361.

²⁵ The People's Liberation Army has a history of targeting Western universities for economic espionage. Even government institutions are affected by this as noted in the recent revelations about the Chinese researchers at PHAC Level 4 microbiology lab in Winnipeg and the subsequent CSIS and RCMP investigations. United States of America, Federal Bureau of Investigations, "China: The Risk to Academia," 4-7. Accessed 10 May 2021. <https://www.fbi.gov/file-repository/china-risk-to-academia-2019.pdf/view>; Alex Joske, *Picking Flowers, Making Honey: The Chinese Military's Collaboration with Foreign Universities*, (Barton: The Australian Strategic Policy Institute Limited, 2018), 8. https://s3-ap-southeast-2.amazonaws.com/ad-aspi/2018-10/Picking%20flowers%2C%20making%20honey_0.pdf?H5sGNaWXqMgTG_2F2yZTQwDw6OyNfH.u; Canada, House of Commons, Special Committee On Canada-China Relations, *Evidence*, 43rd Parliament, 2st session, 31 March 2021. Accessed 11 May 2021. <https://www.ourcommons.ca/DocumentViewer/en/43-2/CACN/meeting-21/evidence>; Robert Fife and Steven Chase, "CSIS Warned Ottawa about Two Scientists at Winnipeg Disease Lab," *The Globe and Mail*, May 12, 2021. Accessed 12 May 2021. <https://www-proquest-com.cfc.idm.oclc.org/newspapers/csis-warned-ottawa-about-two-scientists-at/docview/2525357833/se-2?accountid=9867>.

²⁶ There are plenty of examples of this.; Freeze, Colin. "Prosecutors Stay Charges Against Qing Quentin Huang in Probe of Naval Leaks to China: Engineer Accused of Offering Up Vessel Information in 2013 Remains before Court - but no Longer Faces Counts Arising from CSIS Wiretaps on Chinese Embassy," *The Globe and Mail*, 18 September 2020. Accessed 5 May 2021 at <https://search-proquest-com.cfc.idm.oclc.org/docview/2443941189?accountid=9867>

from the networks and servers of the targeted institution. A famous Canadian example of this is Nortel Networks. China targeted the company, and Nortel lost valuable IP through joint ventures and later due to a significant compromise of their computer networks.²⁷ It is theorized that this significantly contributed to its eventual collapse.²⁸

Canada's Current Protections

Canada is a country with a thriving technology and innovation sector, one which China targets. The question that then arises is what is Canada doing to protect this sector? What is preventing China from exploiting Canadian efforts? The answer is *not enough*. Canada is an easy and poorly protected source of technology and innovation. While there are some protections for Canadian interests, these are limited; some are voluntary, and others used sparingly.

Protection for Industry: The Investment Canada Act

The principal protection against foreign economic espionage through the acquisition of Canadian companies is the Investment Canada Act (ICA). This Act of Canada outlines the requirements for the review of investments in Canada by non-

²⁷ Once again there are plenty of examples of this, however, the more famous Canadian example is the Nortel Networks hack which can be seen as a factor in the company's collapse. Stechyson, Natalie. "Nortel Hacked by China for a Decade: Report." *Postmedia News*, Feb 14, 2012. Accessed 10 May 2021. <https://search-proquest-com.cafvl.idm.oclc.org/wire-feeds/nortel-hacked-china-decade-report/docview/921695005/se-2?accountid=10524>; Terry Dawes, "Nortel Syndrome: Why Large Companies will Continue to be Hacked," *Cantech Letter*, February 21, 2013. Accessed 26 April 2021. <https://www.cantechletter.com/2013/02/nortel-syndrome-why-large-companies-will-continue-to-be-hacked0221/>; William C. Hannas, and Tatlow, Didi Kirsten, eds. *China's Quest for Foreign Technology : Beyond Espionage*. Milton: Taylor & Francis Group, 2020. 207-211. Accessed April 26, 2021. <https://ebookcentral.proquest.com/lib/cfvlibrary-ebooks/reader.action?docID=6270117#>

²⁸ Ibid.

Canadians.²⁹ The ICA's stated purpose is to "encourages investment, economic growth and employment opportunities in Canada" and "provide for the review of investments in Canada by non-Canadians that could be injurious to national security."³⁰ The ICA requires the investor to notify the government, but a complete National Security review, known as a *Government in Council Review*, is not obligatory. A complete National Security review is triggered during the initial review and only by the Minister of Innovation Science and Economic Development Canada (ISED) determination that the investment could be injurious to Canada's National Security.³¹

For all cases, except cultural businesses, notification by the purchaser is required before or within 30 days of the acquisition.³² For cultural businesses, the purchaser must notify the government prior to purchase due to requirements under the net benefit to Canada review process of the ICA.³³ Once the notification occurs, the ICA has fixed timelines for the initial and National Security reviews that the responsible review bodies must meet to provide their recommendations on the purchase.³⁴ Once the government decides to approve the investment, it cannot reopen that review even if new information comes to light.

The ICA only protects Canada against threats whereby an industry in Canada is at risk from a foreign entity. If Canadian businesses choose to operate in China, whether

²⁹ Investment Canada Act – Investment Canada Act (R.S.C., 1985, c. 28 (1st Supp)).

³⁰ Ibid, s25.2(1).

³¹ Ibid, s25.1.; Innovation, Science and Economic Development Canada, *Investment Canada Act: Annual Report 2018-19*, (Ottawa, Government of Canada, 2019), 15.

³² ICA; Canada, The House of Commons, "The Investment Canada Act: Responding To The Covid-19 Pandemic And Facilitating Canada's Recovery," *Report of the Standing Committee on Industry, Science and Technology*, March 2021, 13.

³³ ICA.

³⁴ ICA, s25.1.; Innovation, Science and Economic Development Canada, *Investment Canada Act: Annual Report 2018-19*, (Ottawa, Government of Canada, 2019), 15.

independently or as a joint venture, there are no Canadian protections. Instead, it must follow the Chinese laws regarding foreign investment in China, including an obligatory transfer of technology to China.³⁵ While the new Chinese foreign investment law has banned this practice, the actual enforcement of this law and the continued IP theft against companies working in China is still a grave concern.³⁶

Protections for Research and Academia

Canada has no laws or regulatory protections against foreign involvement with Canadian research. The best it has is official policy statements, put out by ISED, that advise academia and research institutions that they may be a target for adversaries and to take extra steps to ensure the security of their “research, intellectual property and knowledge development.”³⁷ With the onset of the global COVID-19 pandemic, the Canadian government released a special policy statement encouraging the research community working in this field, public, private, and academic, to take extra steps to safeguard their research, IP and development from hostile actors.³⁸ Nonetheless, no mandatory requirements were imposed.

In addition to policy statements, there are attempts to educate both academia and industry about the threats to R&D, laws regarding dual-use technologies and export

³⁵ Mo Zhang, “Change Of Regulatory Scheme: China’s New Foreign Investment Law and Reshaped Legal Landscape,” *UCLA Pacific Basin Law Journal* 37, no. 1 (Spring 2020): 215. <http://search.ebscohost.com.cafvl.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=145021965&site=ehost-live&scope=site>.

³⁶ Ibid.

³⁷ Innovation, Science and Economic Development Canada, “Research Security Policy Statement – Spring 2021,” Accessed 10 May 2021. <https://www.canada.ca/en/innovation-science-economic-development/news/2021/03/research-security-policy-statement--spring-2021.html>

³⁸ Innovation, Science and Economic Development Canada, “Policy Statement on Research Security and COVID-19,” Accessed 10 May 2021.

license controls.³⁹ Although led by ISED, these efforts also include a host of other federal departments and agencies, including Public Safety Canada, CSIS, the Communications Security Establishment Canada (CSEC) and the Royal Canadian Mounted Police.⁴⁰

These educational efforts presently include a website, awareness products and education sessions that provide insight into safeguarding one's research and innovations. These provide a relatively simple outline of why safeguards are required, who the threat is, outline the risks, and clarify what may be at risk. They also provides steps to protect research and innovations, both onsite and when travelling, including a tool to assist in mitigating risk.⁴¹

Deficiencies in Canada's Protections

Investment Canada Act

The government rarely conducts full reviews on foreign investments for national security reasons. In 2018, there was a full review of only 1% of investments, and this was the most reviews done in a single year in that decade. Many years had none.⁴² Over the decade reviewed, 2009 to 2019, there was a full national security review of only 22 investments.⁴³ This number did not include all investments that would seem, on the

³⁹ Innovation, Science and Economic Development Canada, "Safeguard your Research," Accessed 10 May 2021. https://www.ic.gc.ca/eic/site/063.nsf/eng/h_97955.html

⁴⁰ ... "Safeguard your Research," ...

⁴¹ Ibid.; Universities Canada and Government of Canada-Universities Working Group, *Mitigating Economic And/Or Geopolitical Risks In Sensitive Research Projects: A Tool For University Researchers*, (Ottawa: Universities Canada, 2019).; Public Safety Canada, "Safeguarding Science." Accessed 3 May 2021. <https://www.publicsafety.gc.ca/cnt/ntnl-scrtr/cntr-trrrsm/cntr-prlfrtn/sfgrdng-scnc/index-en.aspx>

⁴² Based upon a comparison of the number of foreign investments and investments reviewed. Sources were: Innovation... Canada, *Investment Canada Act: Annual Report 2018-19*, ..., 16.; Invest in Canada, "By the numbers: Foreign direct investment in Canada - FDI facts and figures for 2019," Accessed 10 May 2021. <https://fdi2019.investcanada.ca/by-the-numbers>

⁴³ Innovation..Canada, *Investment Canada Act: Annual Report 2018-19*...,16.

surface, to have obvious national security implications. The sale of Norsat, a Canadian satellite communications company that provides satellite communications to the Canadian Armed Forces, United States military and NATO countries exemplifies this concern.⁴⁴ Hytera Communications, a Chinese telecom company, was allowed to purchase Norsat. The ICA review did not include a full national security review despite allies' concerns and links to national defence activities.⁴⁵ The lack of a full review highlights the subjective selection of cases and the lack of established criteria for a full National Security Review. The decision for full review rests upon ministerial prerogative.⁴⁶

The ICA has no definition of national security, nor does it clearly state the types of industry that fall into the national security realm.⁴⁷ Until 2021, what a national security review examined was unknown. Finally, in March 2021, the *Guidelines on the National Security Review of Investments* were published. This document provided some details on what could be examined and what types of businesses could have national security implications; however, it does not mandate full reviews of these types of transactions.⁴⁸

The 30-day delay in notification of purchase is a critical issue when looking at

⁴⁴ David Pugliese, "Canada under fire for approving Norsat sale to China's Hytera Communications," *Space News*, June 15, 2017. Accessed 4 May 2021. <https://spacenews.com/canada-under-fire-for-approving-norsat-sale-to-chinas-hytera-communications/>; "Norsat Sale to Hytera Closes for CA\$85 million, Despite Controversy," China Institute – University of Alberta, 24 August 2017. Accessed 4 May 2021. <https://chinainstitute.ualberta.ca/investment-blog/2017/08/24/norsat-sale-hytera-closes-ca85-million-despite-controversy>

⁴⁵ Ibid.

⁴⁶ ICA.

⁴⁷ ICA.; Oliver Borgers, Emily Rix and Lorne Salzman, McCarthy Tétrault LLP, "Foreign Investment Screening Under The Investment Canada Act," Paper presented at the Canadian Bar Association 2010 Annual Fall Conference on Competition Law Session on Foreign Investment Review in Canada Gatineau, Québec, September 2010, 20. Accessed 10 May 2021. http://www.cba.org/cba/cle/PDF/COMP10_Borgers_paper.pdf

⁴⁸ Innovation, Science and Economic Development Canada, "Guidelines on the National Security Review of Investments" <https://www.ic.gc.ca/eic/site/ica-lic.nsf/eng/lk81190.html>

potential harm to Canada. This delay means a foreign entity can legally control all or part of a Canadian enterprise and have access to the totality of its assets for 30 days before even having to notify the government of the purchase. These assets could be IP, personal information of Canadians, technology, or critical infrastructure.⁴⁹ This provides ample time for the foreign entity to take what it needs and exfiltrate it back to its home country.⁵⁰

The third concern is the timelines associated with the review. The ICA sets out clear deadlines for the review, and all reviews must meet these deadlines unless the purchaser agrees. These timelines of 90 days⁵¹, while seemingly long to a layperson, are very limited.⁵² When one considers that a review board of disparate entities must research the company to understand the risks involved, gather information and intelligence, review, discuss, and conduct a formal review board, and provide an assessment. After this assessment, the determination must go through senior-level review and political review before submitting to the minister for their final decision.⁵³ An additional factor in the timeline concern is the consequences of the lack of time. Under the ICA, after a decision, there is no mechanism to reopen a foreign investment review.⁵⁴

⁴⁹ Canada, House of Commons, Standing Committee on Industry, Science and Technology, *Evidence*, 43rd Parliament, 1st session, 18 June 2020. Accessed 10 May 2021.

<https://www.ourcommons.ca/DocumentViewer/en/43-1/INDU/meeting-25/evidence>

⁵⁰ Canada, The House of Commons, *Report of the Standing Committee on Industry, Science and Technology: The Investment Canada Act: Responding To The Covid-19 Pandemic And Facilitating Canada's Recovery*, (Ottawa: Government of Canada, 2021), 15. Accessed 10 May 2021.

<https://www.ourcommons.ca/DocumentViewer/en/43-2/INDU/report-5>

⁵¹ The 90 days is actually an initial 45 days followed by a 45 day extension. No further extension is permitted without approval of the purchaser.

⁵² Innovation..Canada, *Investment Canada Act: Annual Report 2018-19...*, 15.

⁵³ Ibid, 16.

⁵⁴ ICA.

Protections for Research and Academia

Private research and academia have no regulated protections in place. Unless public dollars fund the R&D or the technology falls under an export control regime, the government has no say in how the institution shares or protects its information. Even when the government funds the R&D, there may be no obligation to follow any measures to safeguard the technology or innovation.⁵⁵ The only protections are the provision of warnings, advice and guidance from the government. All of these are voluntary to follow.

Foreign businesses, including state-owned enterprises from China, enter into research partnerships with Canadian academic institutions and take the resulting IP back to China. In many cases, the government funds the same research through grants or contributions.⁵⁶ This means the Canadian government is funding their completion.

WHAT STEPS SHOULD CANADA TAKE?

Canada has been slow to understand the reality that China, while a valuable trade partner, poses a significant threat to Canada's long-term security. The government is finally heeding the warnings from CSIS and the others and starting to pay attention to

⁵⁵ A review of the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council of Canada, (collectively known as the Tri-Agencies) Policy and guidelines show no safeguarding obligations for research conducted using government funding. The Tri-Agencies are federal granting agencies that support research, research training and innovation in Canadian postsecondary institutions. Canadian Foundation for Innovation, a corporation funded by the Government of Canada manages government funding for Research and Development (R&D) infrastructure in Canada. A review of its Policy and Program Guide also did not included any requirements to implement protections on the R&D nor limitations on grant recipient's collaboration with other parties, including foreign governments. Sources accessed 5 May 2021.: http://science.gc.ca/eic/site/063.nsf/eng/h_1E7A5F18.html, <https://www.innovation.ca/awards/policy-and-program-guide-and-supplemental-information>

⁵⁶ China Institute, *Foreign Investment Review In Canada: Assessing Chinese Investment Amid a Re-Evaluation of the Investment Canada Act*, (China Institute Occasional Paper, University of Alberta 2020), 33-34. Accessed 10 May 2021. <https://www.ualberta.ca/china-institute/media-library/media-gallery/research/occasional-papers/2020-foreigninvestmentreviewincanada.pdf>

China's threat. In 2020, the House of Commons Special Committee on Canada-China Relations started to focus its attention on China as a national security threat.⁵⁷ In the spring of 2021, some academic institutions acknowledged the risk of their collaboration with Chinese institutions and state entities and asked for the Canadian government's direction and support.⁵⁸

Some small steps have been taken over the last year and a half to tighten protections. In April 2020, ISED issued its *Policy statement on Foreign Investment Review and COVID-19*. The statement announced closer scrutiny for investments into the public health sector or the supply of critical goods and services.⁵⁹ This policy statement followed warnings in March 2020 by CSEC to companies and research institutes about threats to illicitly obtain COVID-19 research. Allied security agencies produced similar warnings, openly naming China as a threat source.⁶⁰ More recently, in March 2021, the government released *Guidelines on the National Security Review of Investments*, which elaborated on which investments would face greater scrutiny, such as investments by

⁵⁷ A March 2021 meeting of the committee focused on Chinese researchers working for the Public Health Agency of Canada (PHAC) in the National Microbiology Laboratory and possible illicit activities may have taken place. Canada, House of Commons, Special Committee On Canada-China Relations, *Evidence*, 43rd Parliament, 2nd session, 31 March 2021. Accessed 10 May 2021.

<https://www.ourcommons.ca/DocumentViewer/en/43-2/CACN/meeting-21/evidence>

⁵⁸ Robert Fife and Steven Chase, "Alberta Vows to Curb University's Research Ties to China," *Globe and Mail*, 5 May 2021. Accessed 10 May 2021. <https://www-proquest-com.cfc.idm.oclc.org/docview/2521871735/C649B1DE480045BDPQ/1?accountid=9867>; Walter Dixon, Interim Vice-President (Research and Innovation), "Institutional Statement About China Relations," Formal Statement, 4 May 2021, University of Alberta. Accessed 10 May 2021. <https://www.ualberta.ca/news/media-relations/statements/2021/2021-05-04-institutional-statement-about-china-relations.html>

⁵⁹ Government of Canada, "Policy Statement on Foreign Investment Review and COVID-19". Accessed 10 May 2021. <https://www.ic.gc.ca/eic/site/ica-lic.nsf/eng/lk81224.html>

⁶⁰ Spies Want Canadian COVID Research: Intelligence Agencies Warn Country's at Risk of State-Sponsored Hacking." 2020. *Toronto Star*, May 15. Accessed 10 May 2021. <https://search-proquest-com.cafvl.idm.oclc.org/newspapers/spies-want-canadian-covid-research/docview/2402841607/se-2?accountid=10524>

state-owned enterprises, and provided a non-exhaustive list of sensitive technology areas.⁶¹

Notwithstanding the actions taken above, more needs to be done by the Government of Canada to protect itself from the economic espionage threat from China and others. The existing legislation and programs are not sufficient to address the current threat. The following paragraphs will outline steps Canada should take to safeguard itself.

Update the ICA. The ICA needs to be updated in several areas to address the risk of foreign investment. The following should be introduced:⁶²

- Inclusion in section 28(1) of other means of foreign control such as the ownership of a significant portion of Canadian company's debt;⁶³
- Automatically have all investments made by a state-owned enterprise subject to a full national security review;
- Clearly define sectors implicating national security and make all investments in

⁶¹ Innovation..Canada, "Guidelines on the National Security Review of Investments." Accessed 10 May 2021. <https://www.ic.gc.ca/eic/site/ica-lic.nsf/eng/lk81190.html>

⁶² Some of these recommendations are in line with recommendations by the House of Commons, Standing Committee on Industry, Science and Technology in its March 2021 Report "The Investment Canada Act: Responding To The Covid-19 Pandemic And Facilitating Canada's Recovery." Some are in line with Australia's 2020 changes to their foreign investment laws. Sources are: House of Commons, "The Investment Canada Act: Responding To The Covid-19 Pandemic And Facilitating Canada's Recovery," *Report of the Standing Committee on Industry, Science and Technology*, March 2021. Australian Government, Foreign Investment Reform (Protecting Australia's National Security) Act 2020, No. 114, (2020).; Government of Australia, Foreign Investment Review Board, "Guidance 8: National Security Test," 17 December 2020. Accessed 10 May 2021. <https://firb.gov.au/sites/firb.gov.au/files/guidance-notes/GN8-NationalSecurity-210303.pdf>. Another source and validation element was China Institute, *Foreign Investment Review In Canada: Assessing Chinese Investment Amid a Re-Evaluation of the Investment Canada Act*, (China Institute Occasional Paper, University of Alberta 2020),.

⁶³ Ownership of company's debt can allow an outside agency to exert influence and control over decisions by the company, without ever visibly being part of the company.

these sectors subject to a full national security review.⁶⁴ This list of sectors would be updated annually through regulations;

- The ability to re-review investments previously permitted. This would apply when new information has come to light, or the company's business becomes part of a national security sector;
- Automatically obligate re-review of investments when the original foreign buyer is acquired or merges with another foreign entity;
- Obligate Canadian businesses in the national security sector to notify the government before the transfer of sensitive technology or IP to a foreign corporation; and
- Include research partnerships between Canadian academic institutions and foreign entities into the ICA as investments into Canadian businesses.

Introduce legislation or regulations governing government-sponsored R&D. Put clear rules in place for situations where the government provides resources for research or development, whether through grants, contributions, use of facilities, partnerships or internships. These rules would regulate the following:

- Transfer of the technology or IP to a foreign entity;
- Partnership with non-Canadian entities;
- Employment of non-Canadian R&D staff, including interns and students;

⁶⁴ This would not be a complete ban on investment on these sectors but just enhanced scrutiny. In comparison, China has a 'negative list' which prohibits foreign investment in certain sectors. Source: Mo Zhang. "Change Of Regulatory Scheme: China's New Foreign Investment Law and Reshaped Legal Landscape," *UCLA Pacific Basin Law Journal* 37, no. 1 (Spring 2020): 201-202. <http://search.ebscohost.com.cafvl.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=145021965&site=cho-st-live&scope=site>.

- A minimum level of physical, personnel, and cyber safeguards to be in place for the R&D work.⁶⁵

This is not to say the above activities would not be permissible, but greater scrutiny and oversight of these activities would be put in place to avoid the loss. It might also require the partner to reimburse the Government of Canada for the resources provided if the institution or company transfers the technology or IP outside of Canada.⁶⁶

Increased Resources for Safeguarding Academia and Industry. While engagement with China is valuable for Canada's long-term economic success and prosperity, Canadian institutions and companies need to understand the risks. It is recommended that additional resources are made available to create a dedicated interdepartmental task force on the protection of industry and academia. This task force would continue the current outreach and awareness efforts and recommend mandatory safeguards. However, it also should make available resources to build and implement the necessary safeguards to protect against economic espionage.

Increased focus and resources for counter economic espionage efforts. Canada has a poor record of investigating and prosecuting espionage in general, let alone economic espionage.⁶⁷ It needs to provide the resources and emphasis to create a task force to address economic espionage. This would include reviewing immigration policies

⁶⁵ By safeguards, this would include such measures as physical and cyber protection for the technology and information, the vetting of persons working in the facilities, and rules regarding visits and discussions with foreign entities.

⁶⁶ In line with Recommendation 6 of the Standing Committee on Industry, Science and Technology's report on the ICA.; The House of Commons, "The Investment Canada Act: Responding To The Covid-19 Pandemic And Facilitating Canada's Recovery," *Report of the Standing Committee on Industry, Science and Technology*, March 2021.

⁶⁷ Fabrice de Pierrebourg and Michel Juneau-Karsuya, *Nest of Spies: the Startling Truth About Foreign Agents that Work Within Canada's Borders*, (Toronto: Harper Collins Publishers Ltd, 2009), 147-148.

and enhanced screening for international students studying or working in targeted fields.⁶⁸

Conclusion

Canada needs to improve its protection against the harms from our relationship with China. By acknowledging the threat and taking concrete measures to improve awareness, introduce safeguards, and actively combat economic espionage, Canada will continue to maintain itself as a country known for its technology and innovation capabilities. If it fails to take sufficient actions in time and prioritizes short-term financial and political gain, Canada is at risk of becoming a third-rate nation. Its critical resources, technologies, innovation, and capabilities will be absorbed by China's growing appetite, with Canada unable to compete in the global marketplace or defend itself militarily.

Open trade and research collaboration are required for Canada to thrive as a nation. It must walk the fine line between encouraging collaboration and investment and protecting the future of the country. There must be a constant balance of risk and benefit lest one stray too far one way or another. However, similar to balancing the environmental harm against profits that have led to the global environmental crisis that is climate change, Canada must change its focus from the economic gains to the protection

⁶⁸ This is critical, as this is a vector for the People's Liberation Army to obtain new technology. This recommendation also echos recommendations made to the United States government. Michael Brown and Pavneet Singh, *China's Technology Transfer Strategy: How Chinese Investments in Emerging Technology Enable A Strategic Competitor to Access the Crown Jewels of U.S. Innovation*, (Washington D.C.: Defense Innovation Unit Experimental, 2018), 2-4. Accessed 10 May 2021. [https://admin.govexec.com/media/diux_chinatechnologytransferstudy_jan_2018_\(1\).pdf](https://admin.govexec.com/media/diux_chinatechnologytransferstudy_jan_2018_(1).pdf)

side of its relationship with China. It must give equal weight to the consideration of risk as it does economic benefit lest it finds itself in an untenable position with China.

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