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THE INDUSTRIAL AND TECHNOLOGICAL BENEFITS POLICY: AN ANALYSIS OF CONTRACTOR OBLIGATIONS AND FULFILLMENT



OFFICE OF THE PARLIAMENTARY BUDGET OFFICER
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The Parliamentary Budget Officer (PBO) supports Parliament by providing economic and financial analysis for the purposes of raising the quality of parliamentary debate and promoting greater budget transparency and accountability.

This report analyses transactions and investments made from 2015-2019 under the Industrial and Technological Benefits Policy for Canadian defence and security procurement, as administered by Innovation, Science and Economic Development Canada.

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Executive Summary

Industrial and Technological Benefits (ITB) is Innovation, Science and Economic Development (ISED) Canada's policy that governs the application of economic benefits in defence and security procurement initiatives. The policy levies obligations on foreign and domestic firms that are awarded defence procurement contracts to undertake economic activity in Canada equal to at least 100 percent of the value of the contract.

This report analyzes investment obligations under the ITB policy and the means by which industry partners fulfil these obligations.

ISED's 2021 Annual Report indicates that there exists a total of \$43 billion dollars in ITB obligations for active projects, of which \$27.4 billion have already been fulfilled, \$7.3 billion are in progress, and another \$8.3 billion have yet to be identified.

Our analysis concerns a subset of the figures reported by ISED in the 2021 Annual Report, specifically those pertaining to ITB transactions that occurred over the five-year period of 2015-2019. Our analysis of these transactions finds a total of \$18.3 billion dollars in fulfilled ITB obligations.

Of this total, approximately \$142 million in transactions were eligible for credit multipliers, which incentivize contractors to invest in selected "highly-valued" areas identified by ISED (for example, research and development or post-secondary education institutions). This subset represents less than 0.8% of all transactions over the 2015 to 2019 timeframe.

Obligations may be fulfilled either through "direct" transactions, referring to transactions with domestic partner firms for work directly relating to the defence and security materiel or service being procured, or "indirect" transactions, which concern all work activity other than that which is directly linked to the procurement. We find that nearly half of all transactions pertain to indirect transactions, accounting for 47.1% of the total \$18.3 billion in ITB transactions.

One of the stated objectives of ISED's ITB policy is to leverage defence procurement to help support and grow small and medium-sized enterprises (SMEs) in Canada. Our analysis indicates that while SMEs account for over half of the number of firms receiving ITB transactions over the 2015 to 2019 period, they account for just 12.2% of the total amounts.

Finally, our examination of the foreign ownership status of large firms engaged in ITB transactions reveals that approximately 31% of the total ITB transaction values accrue to large firms with ownership and operations in Canada.

Introduction

Industrial and Technological Benefits (ITB) is Innovation, Science and Economic Development (ISED) Canada's policy governing the application of economic benefits in defence and security procurement initiatives. The policy requires foreign and domestic firms that are awarded defence procurement contracts to undertake economic activity in Canada equal to at least 100 percent of the value of the contract. Typically, firms fulfil their obligations under the ITB policy by engaging in co-production activities, such as the manufacture or assembly of constituent elements of the system being procured, and by directly investing in Canadian partner firms.

While the program is generally low-profile, economic benefit considerations from the ITB policy affect the outcomes of competitive procurement processes, including the Future Fighter Capability Project, where a reported 20% of the weighting of the final bid evaluation is dependent on an assessment of the economic benefits accruing to Canada.¹ This suggests that a supplier that proposes lower value-for-money, or a higher price, could still be awarded a multi-million dollar contract if it promises greater economic benefits to Canada.

This report analyzes investment obligations under the ITB policy and the means by which industry partners fulfil these obligations. Drawing on transaction-level data over the five-year period of 2015 to 2019, we present findings concerning:

- Contract activity and fulfillment rates;
- The role of credit multipliers in fulfilling obligations;
- The role of indirect and direct transactions in fulfilling obligations;
- The involvement of small and medium-sized firms in ITB investments; and,
- The foreign ownership status of large firms receiving ITB transactions.

1.1. About the ITB Policy

Aim and Applicability

The ITB policy aims to “leverage defence and security procurement to create jobs and growth”. ISED lists the policy’s five main objectives as:

1. Support the long-term sustainability and growth of Canada’s defence sector;
2. Support the growth of prime contractors and suppliers in Canada, including small and medium-sized firms in all regions of the country;
3. Boost innovation through research and development in Canada;
4. Increase the export potential of Canadian-based firms; and,
5. Identify skills development and training opportunities for Canadians.

All defence-related procurement contracts with an estimated contract value of more than \$100 million are affected by ITB obligations. Defence procurement contracts with a value of between \$20 million and \$100 million are assessed individually for the applicability of ITBs.²

The Value Proposition

Potential contractors participating in a competitive bidding process are required to submit a Value Proposition detailing how the ITB obligations would be fulfilled over the defined period of the contract. ISED assesses the promises included in the Value Proposition against the stated aims of the policy in determining the economic benefits portion of the overall bid score. In cases where the government procures defence materiel through a non-competitive process, the Government negotiates directly with contractors to establish a set of obligations consistent with the ITB mandate.³

1.2. Fulfilling ITB obligations

ISED oversees contractors’ progress towards obligation amounts. Once a contract is awarded to a contractor, a total obligation amount is established commensurate with the contract value. The contractor fulfils this obligation by undertaking transactions with recipient firms in Canada. These transactions are submitted to the ITB Authority through ITB Annual Reports. The Canadian content of these transactions, as assessed by ISED, are accumulated towards fulfilling the contract obligation. Given the dynamic nature of defence procurement, ISED and the contractor may modify proposed transactions, obligation amounts, and other details as necessary.

Once a contractor has fulfilled the total amount of its obligations under the ITB policy, it may, under certain circumstances, “bank” further investments and contributions towards future obligations. In general, these investments must occur during the defined period of the initial contract.

The role of credit multipliers

ISED applies credit multipliers to incentivize investments in selected “highly-valued” areas such as research and development, Canadian post-secondary institutions, small and medium-sized enterprises, and contributions to skills development and training for Indigenous peoples. Such investments may be credited against the total amount of the contractor’s obligation with a multiplier between four and nine.

Transaction types: Direct vs. Indirect

ITB obligations may be fulfilled via both “Direct” and “Indirect” transactions. Direct transactions involve activities undertaken by the contractor and Canada-based suppliers that are directly involved in the production of the military equipment being procured by Canada. Indirect transactions concern activities undertaken by the contractor and its suppliers that are not directly related to the military equipment being procured; these activities may take various forms, such as work under the contractor’s product line, purchases of goods and services from Canadian suppliers not directly related to the procurement project, investments in research and development, technology transfers, and others. The proportion and type of transfers are established within the Value Proposition of a bid in the case of a competitive procurement process.

1.3. Data obtained for this analysis

For the purposes of our analysis, PBO requested a detailed list of all ITB policy contracts that were active in 2020 and made investments in the 2015 to 2019 fiscal years. In sum, PBO received data on 112 ITB contracts.⁴ This information was supplemented by a list of all applicable transactions under these contracts, with a complete detailing of the subcontractor(s) included; the year(s) within which the credits were recognized; the Canadian content value (CCV) of each transaction; the multiplier applied to each transaction; whether the transaction reflected a direct or indirect investment; whether the recipient firm was a small or medium-sized enterprise; and any amounts relating to banked transactions.

2. How are obligations being fulfilled?

This report analyses how contractors have fulfilled spending requirements under the ITB policy. As the data for this report reflects a cross section of ITB contracts, the current balance reflects that some contracts are complete while others are still underway.

Table 2-1 offers a snapshot of the status of contracted ITB obligations as of ISED's 2021 Annual Report.⁵ Of a total \$43 billion in contractor obligations, \$27.4 billion have been fulfilled, \$7.3 billion are in progress, and \$8.3 billion are listed as "to be identified".

Table 2-1 ITB obligation status as of 2021

	Total Obligations	Completed to date	In progress	To be identified
\$ billions	43	27.4	7.3	8.3

Source: Innovation, Science and Economic Development Canada.

An overview of the entirety of transaction-level data used in this report is presented in Table 2-2. Of the 112 ITB contracts over the surveyed period of 2015-2019, 40 were effectively completed, 59 had transaction activity and were still in progress, and another 13 contracts had no activity. Contracts with no transaction activity over the observed timeframe are generally those at the beginning or end of an achievement period.

Table 2-2 Contract activity, 2015-2019

	Number of Contracts	Credits in CCV (\$B)*
Completed	40	10.7
In-Progress	59	7.6
No transaction activity	13	0.0
Total	112	18.3

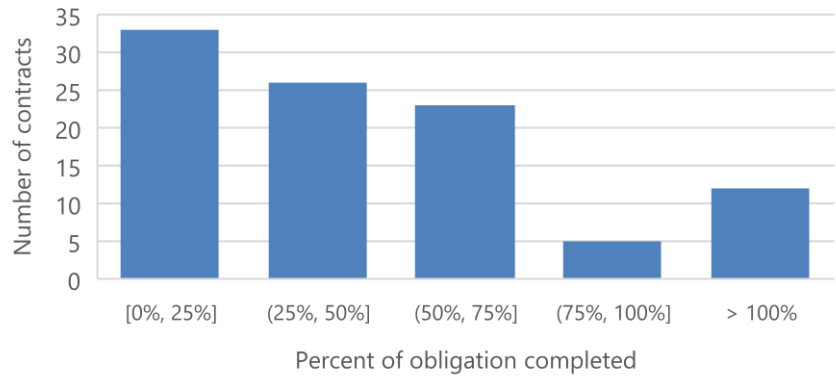
Sources: PBO calculations; Innovation, Science and Economic Development Canada.

Note: * Canadian Content Value. Credited figures reflect total contributions towards obligations before applicable multipliers or exchange rates.

Figure 2-1 shows the progress of the 99 contracts with at least some activity during the observed period of 2015 to 2019. The percentages represent the sum of de-multiplied credits from this period as the numerator, and the contract obligation amount as the denominator. Notably, 12 contracts had more activity than their obligation amount just in 2015-2019. This "overfulfillment" simply means that PBO observed more ITB activity, measured in de-multiplied credits, in the 2015-2019 period than the value of

the contract. Overfulfilled contracts will most likely be closed soon and recorded as successfully completed.

Figure 2-1 ITB contract status, 2015-2019



Sources: PBO calculations; Innovation, Science and Economic Development Canada.

Note: Based on de-multiplied amounts. All figures based on calculations in Canadian dollars.

2.1. Credit multipliers do not play a significant role

Some transactions have their credits multiplied with credit multipliers ranging from four to nine and are subject to ITB Authority approval. That is, a \$1 credit would be multiplied and applied as \$4 to \$9 respectively towards the total amount of the contractor’s obligation. Examples include investments in research and development, venture capital funds, or technology transfers. These credit multipliers encourage transactions towards these identified sectors and can allow contractors to fulfil their ITB obligations with less spending.

Despite the existence of these credit multipliers, our analysis shows that contractors only seldomly make use of them: Table 2-3 shows that multiplier-affected transactions account for only 0.8% of all de-multiplied credits. Once credit multipliers are applied, this share increases to 4.9% of all multiplied credits. The most common multiplied transaction type is investments in post-secondary institutions, which carries a credit multiplier of five.

Table 2-3 Use of credit multipliers in ITB transactions

	No Multiplier	Multiplied
De-Multiplied Amount (\$ billions)	18.2	0.1
% share	99.2	0.8
Multiplied Amount (\$ billions)	18.2	0.9
Share of total (percent)	95.1	4.9

Sources: PBO calculations; Innovation, Science and Economic Development Canada.

2.2. Indirect investments account for nearly half of all transactions

Contractors may fulfil obligations through either direct or indirect transactions. A direct transaction is for work towards the contract itself, while all other transactions are considered indirect. For example, for a hypothetical aircraft procurement a direct transaction would concern the purchase of parts and systems to be included in the platform itself. An indirect transaction would be all other activity that does not go towards the procurement of the platform, such as landing gear for other aircraft models in the manufacturer’s product line, or products and services not related to the original contract. Table 2-4 shows that a nearly even split between direct and indirect transaction amounts, with 52.9% of de-multiplied amounts attributed to direct transactions and 47.1% attributed to indirect transactions.

Table 2-4 Direct versus indirect ITB transactions

	Direct	Indirect
Amount (\$ billions)	9.7	8.6
% Share	52.9	47.1

Sources: PBO calculations; Innovation, Science and Economic Development Canada.

Note: Dollar figures represent de-multiplied transaction amounts. A small amount of indeterminate transactions are included in the indirect classification.

2.3. SMEs receive only a small fraction of ITB transaction amounts

One of the stated objectives of ISSED’s ITB policy is to leverage defence procurement to help support and grow small and medium-sized enterprises (SMEs) in Canada. Under the policy, a recipient firm is considered an SME if it employs fewer than two hundred and fifty full-time personnel at the time of the transaction, and it may not be an agent, distributor, or subsidiary of the contractor for whom the obligations are being fulfilled.

Table 2-5 displays a breakdown of ITB investment recipient firms by SME status over the observed period of 2015 to 2019. In terms of the number of firms receiving investments under the policy, SMEs represent a slight majority of firms, with 443 firms qualifying under the SME definition as compared to 426 large firms. However, in terms of the total dollar amounts of transactions, SMEs receive a relatively small share; large firms account for approximately 88% of all transaction amounts, while SMEs receive approximately 12% of the total share.⁶

Table 2-5 ITB transaction recipients by firm size

	Small and Medium Enterprises	Large Enterprises
Number of Firms	443	426
Amount (\$ billions)	2.2	16.1
Share of total investments (percent)	12.2	87.8

Sources: PBO calculations; Innovation, Science and Economic Development Canada.

Note: Dollar figures represent de-multiplied transaction amounts.

2.4. Large recipient firms are mostly foreign-owned

Table 2-6 displays the results of an analysis of the foreign ownership status of large firms engaged in ITB transactions over the 2015-2019 period.⁷ Approximately 31% of ITB transactions can be attributed to a large Canadian firm with operations and ownership in Canada, as measured by de-multiplied credits. This is an expected result as Canada's defence industrial base is significantly integrated with that of its allies, particularly the United States.⁸ Furthermore, some Canadian-owned firms are eventually acquired by foreign firms as a result of their engagement in defence and security procurement initiatives with Canada.

Examples of non-Canadian firms in Table 2-6 include subsidiaries of non-Canadian firms, acquisitions of wholly Canadian firms by non-Canadian defence firms, and acquisitions by non-Canadian private equity firms.

Table 2-6 Ownership of Recipients

	Domestic	United States	Other Nations
Number of Entities	154	129	87
Amount (\$ billions)	4.9	8.3	1.7
Share of identified transactions (%)	30.8	52.0	10.7

Sources: PBO, Innovation, Science and Economic Development Canada.

Note: Totals do not add up to 100% as some transactions were not identified with firms in the data provided.

Notes

1. News Release, Public Services and Procurement Canada, 2020. "Government of Canada receives proposals to replace its fighter jets"
<https://www.canada.ca/en/public-services-procurement/news/2020/07/government-of-canada-receives-proposals-to-replace-its-fighter-jets.html>. Accessed 4/01/2022.
2. Industrial and Technological Benefits Policy: Value Proposition Guide, Innovation, Science and Economic Development Canada, 2020.
[https://www.ic.gc.ca/eic/site/086.nsf/vwapj/VPGuideEng.pdf/\\$file/VPGuideEng.pdf](https://www.ic.gc.ca/eic/site/086.nsf/vwapj/VPGuideEng.pdf/$file/VPGuideEng.pdf). Accessed 4/01/2022.
3. Ibid.
4. Information received under IR0626. <https://www.pbo-dpb.ca/en/information-requests--demandes-information/IR0626>.
5. ITB Policy Annual Report – Economic and Innovation Impact Analysis, Fall 2021. https://www.ic.gc.ca/eic/site/086.nsf/eng/h_00193.html. Accessed 4/01/2022.
6. A further breakdown of transactions to SMEs and large firms by direct versus indirect transaction status shows that SMEs receive \$0.9 billion in direct and \$1.3 billion in indirect transactions, while large firms have a modestly higher proportion of direct transactions, with \$8.8 billion in direct as compared to \$7.3 billion in indirect.
7. PBO classified a firm as foreign-owned depending on the firm's ownership status as of April, 2022. It is possible that a small fraction of firms were not foreign-owned at the time of a given transaction.
8. Hartley, Keith and Belin, Jean (2019). The Economics of the Global Defence Industry.