Study

Measuring BDC's Impact on Clients (2014–2018)

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Highlights

This report compares the performance of small and medium-sized businesses that received financing and advisory services from the Business Development Bank of Canada (BDC) with that of similar businesses that were not BDC clients. Statistics Canada conducted the analysis presented in this report, using data gathered between 2014 and 2018. The report provides an objective and quantifiable assessment of BDC's impact on its clients.

Here are the report's highlights:

- BDC clients generally outperformed non-clients in terms of revenue growth. For example, **the revenue growth** of clients that received both financing and advisory services was 6.8 percentage points higher on average than that of non-clients after one year. To illustrate this result, let's say clients' revenue growth rate was 8.8% and non-clients' was 2.0%; the 6.8 percentage points difference represents BDC's impact. Revenue growth for clients that received only BDC financing was 5.2 percentage points higher than that of non-clients, while it was 5.0 percentage points higher for clients that received only advisory services.

- Clients also generated **higher employment growth** than non-clients for most years following BDC's support. Specifically, employment growth of clients was 2.2 percentage points higher than that of non-clients one year after they received both financing and advisory services.

- Clients had a slightly greater **survival rate** than non-clients. For example, three years after they received BDC services, the survival rate (the share of firms still in business) of clients that received both financing and advisory services was 0.15 percentage points higher than that of non-clients.

- BDC had a **positive impact on clients' revenue growth during a period marked by a steep decrease in oil prices, which led to a mild recession in Canada**. Businesses that received financing and advisory services in 2014 experienced revenue growth that was 10.3 percentage points higher than that of non-clients one year after BDC's intervention, and 5.3 percentage points higher two years after. These results highlight BDC's crucial role in supporting Canadian businesses during these difficult times.

1 Why measure BDC's impact?

BDC's purpose is to support Canadian entrepreneurs by providing financing and advisory services tailored to the needs of their businesses.

The goal is to help entrepreneurs build more robust and competitive businesses for the benefit of all Canadians. To measure its success in fulfilling this purpose, BDC asked Statistics Canada to conduct an independent evaluation of the Bank's impact on its clients.

This study is the fifth iteration of BDC's economic impact assessment and measures BDC's impact using data from 2014 to 2018. During this period, BDC authorized $17.4 billion in debt financing to more than 63,000 entrepreneurs through business centres across the country and online at bdc.ca.

This report seeks to answer the following questions:

1. **Do BDC clients grow faster than similar firms that are not BDC clients?**
2. **Do BDC clients create more jobs?**
3. **Are BDC clients more likely to survive over time than similar non-client firms?**

2 Do BDC clients perform better?

Statistics Canada's results show that BDC clients performed significantly better than non-clients with similar characteristics.

BDC's impact was most pronounced on revenue growth and employment growth. Specifically, clients that received both financing and advisory services benefitted the most, relative to the comparison group. What's more, the effect persisted over time.

The following sections provide more detail on the magnitude and duration of BDC's impact on clients.

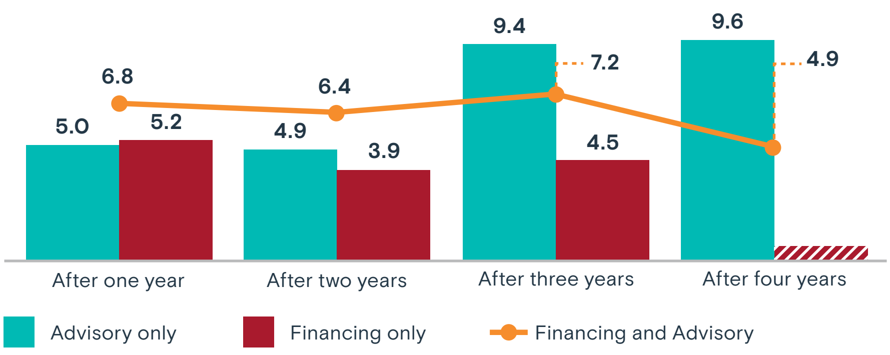
Impact on revenue growth

BDC clients outperformed non-clients in terms of revenue growth. The impact was greatest among clients that received both financing and advisory services. On average, the revenue growth of clients that received both types of services over the 2014–18 period was 6.8 percentage points higher than that of non-clients after one year. Revenue growth for clients that received only BDC financing was 5.2 percentage points higher, while it was 5.0 percentage points higher for clients that received only advisory services.

BDC's positive impact on revenue growth remained statistically significant for at least four years for most study groups, except for financing-only clients, where there was no statistical difference by year four.

Figure 1 — Combining both types of services has a positive impact on revenue growth

(difference between clients and non-clients; percentage points)



Note: Hatched bar and missing number mean that the estimated difference between BDC clients and non-clients was not statistically different from zero or, in other words, was too small to conclude that BDC had an impact.

Source: Statistics Canada.

A numerical example of impact

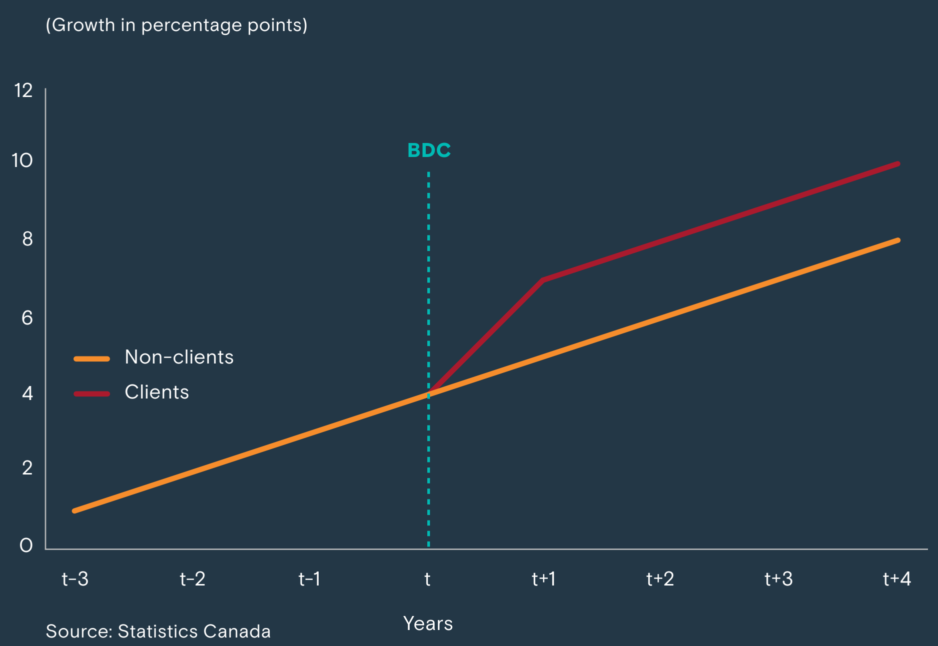
This study focuses on the impact that BDC services had on clients up to four years following the delivery of a service. For example, Statistics Canada data show that one year after becoming a BDC client, a client's revenue growth rate would be 6.8 percentage points higher than that of a non-client firm.

A numerical example can help illustrate the impact. Consider two similar firms: One of them became a BDC client at the end of year (t) and the other did not. Assume that both firms generated revenues of $1.90 million and revenue growth of 2% in year (t). In our example, the client's revenue growth rate would climb by 6.8 percentage points from 2.0% to 8.8% in the year after year (t), while the non-client's growth rate would stay at 2.0%. In terms of dollars, the BDC client's revenues would jump from $1.90 million to $2.07 million, while the non-client's revenues would increase to $1.94 million.

BDC's positive impact on clients persists

Figure 2 illustrates the impact BDC services had on clients. Specifically, as shown by the increasing slope of the red line, the growth rate of the key performance metrics reviewed in this study (revenues and employee count) increased in the first year following the delivery of the service. In this example, after the second year, the impact on growth rates was no longer significant, and BDC clients and non-clients grew at similar rates. Nevertheless, BDC clients grew from a higher base than non-clients did because they had received BDC services.

Figure 2 — How BDC's impact on clients persists over time



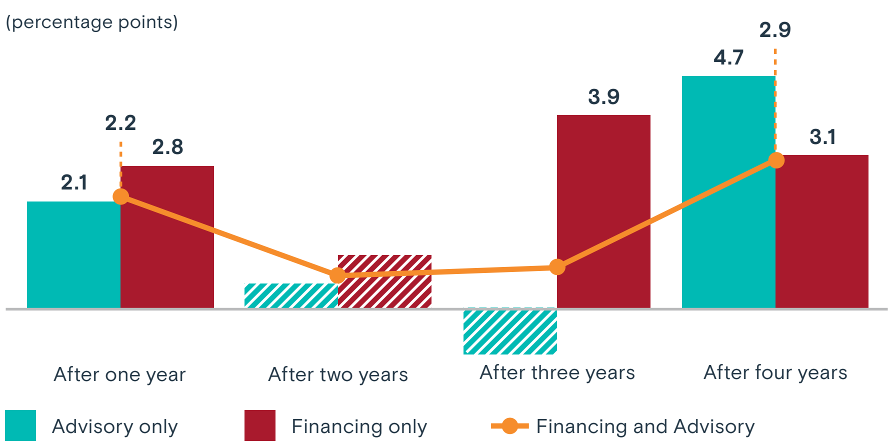
Source: Statistics Canada

Impact on employment growth

BDC clients generated higher employment growth than non-clients for some years. Specifically, employment growth of client firms was 2.2 percentage points higher than that of the comparison group one year after clients received both BDC financing and advisory services. Employment growth was 2.8 percentage points higher among clients that received BDC financing only and 2.1 percentage points higher among clients that received only advisory services.

In the second and third years after its intervention, BDC had virtually no positive impact on employment, except for the third year for clients who received financing only. All BDC's clients generated greater employment growth four years after receiving the Bank's services.

Figure 3 — Difference between the annual employment growth rates of clients and non-clients



Note: Hatched bars and missing numbers mean that the estimated difference between BDC clients and non-clients was not statistically different from zero or, in other words, was too small to conclude that BDC had an impact.

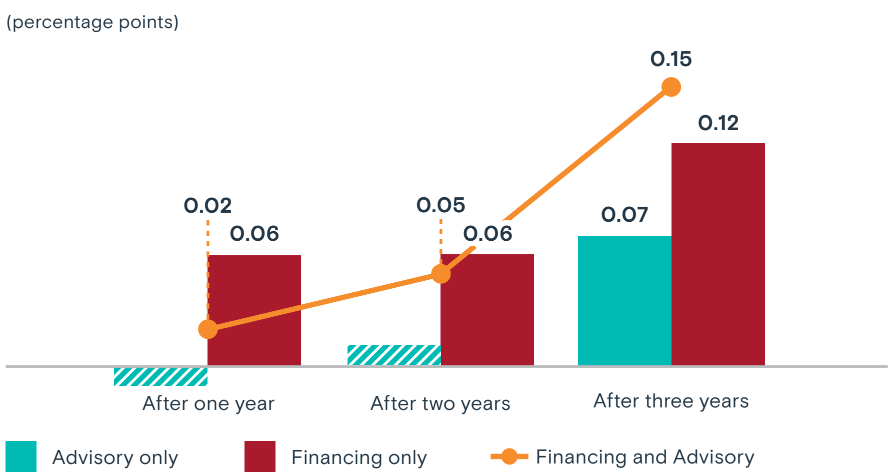
Source: Statistics Canada.

Impact on company survival rates

Annual survival rates (the share of companies still in business after a year) were slightly higher for BDC clients than for non-client firms. One year after receiving BDC services, survival rates were 0.06 percentage points higher for clients that received only financing services and 0.02 percentage points higher for clients that received both financing and advisory services.

BDC's impact on survival rates also persisted over time. After three years,[1] the survival rate of BDC clients that received both financing and advisory services was 0.15 percentage points higher than that of comparable non-clients. Figure 4 provides an overview of the difference in survival rates and shows that the difference in rates persisted, and even increased, over time.

Figure 4 — Difference between the survival company rates of clients and non-clients



Note: Hatched bars and missing numbers mean that the estimated difference between BDC clients and non-clients was not statistically different from zero or, in other words, was too small to conclude that BDC had an impact.

Source: Statistics Canada.

1 For estimations of survival rates, a death was assigned if a firm had missing information on revenues and employment for two consecutive years (e.g., a firm dies in 2017 if there is information prior to 2017, and there is no information in 2017 and 2018). For this reason, it is too early to determine results after four years.

3

BDC's impact during the oil crisis

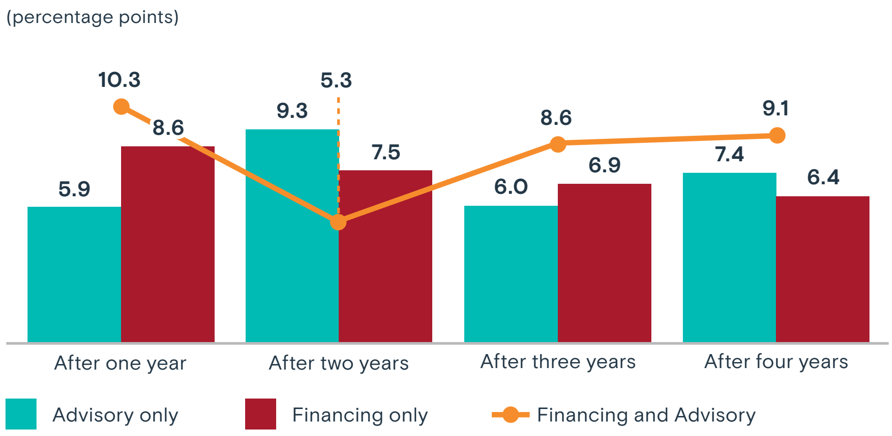
The study's reference period covers the period during which the price of oil plunged by 70 percent, starting in mid-2014.

Not only was this "oil crisis" felt in oil-producing regions such as Alberta, Saskatchewan, and Newfoundland and Labrador, but it also had effects in other provinces, such as British Columbia and Ontario, where many companies were suppliers to the oil and gas industry. To find out whether BDC played its complementary role in the market during this time, we looked at the clients BDC supported in 2014 to see how they grew in the following years. The results from Statistics Canada in that regard are presented in this section.

Impact on revenue growth

Clients that received both financing and advisory services during the oil crisis generated higher revenue growth than non-clients did. Specifically, revenue growth among BDC clients that received both services in 2014 was 10.3 percentage points higher one year later than that of non-clients. In fact, the impact on revenue growth remained positive over the entire period studied. This provides evidence of BDC's role as a complementary lender during difficult times for Canadian businesses.

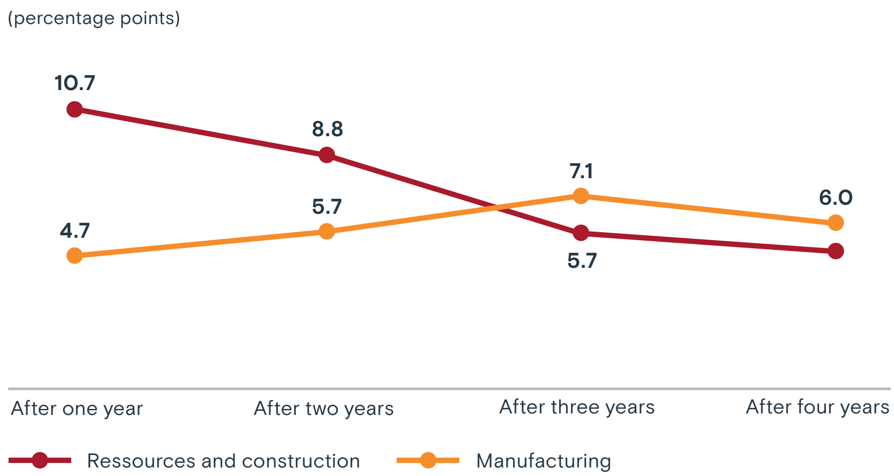
Figure 5 — Difference in revenue growth between clients that received BDC services in 2014 and non-clients



Source: Statistics Canada.

Clients in industries that were most affected by the steep reduction in oil prices, such as the resources, construction and manufacturing sectors, specifically benefitted from BDC services. For example, BDC clients that received both services in resources and construction generated 10.7 percentage points higher revenue growth one year later than non-clients operating in the same industries did. BDC clients in manufacturing that received both services generated 4.7 percentage points higher revenue growth one year later than non-clients in manufacturing did. The impact on revenue growth remained positive over most of the years studied.

Figure 6 — Difference in revenue growth between clients that received both BDC services and non-clients



Note: Missing numbers mean that the difference estimated between BDC clients and non-clients was not statistically different from zero or, in other words, was too small to conclude that BDC had an impact.

Source: Statistics Canada.

4 Conclusion

This study demonstrates BDC's positive impact on Canadian small and medium-sized businesses.

It also provides evidence of BDC's complementary role in the economy. It shows that BDC clients achieved better results in terms of revenue growth, employment growth and business survival rates than they would have achieved if they had not turned to BDC. Clients using both financing and advisory services tended to show even stronger results on key performance indicators.

The performance of BDC clients compared to non-clients remained positive over time, regardless of the economic cycle. That highlights BDC's important role in supporting businesses in difficult times.

5 Methodology

This study has all the key elements of a rigorous economic impact analysis.

First, it was carried out by an independent third party, Statistics Canada. Second, the indicators selected to evaluate BDC's impact were those typically used to measure business performance, and they were related to BDC's goal of promoting the success of robust and competitive businesses. Statistics Canada had enough information on the businesses to carry out longitudinal analyses, as well as enough data to set up comparison groups that were sufficiently close to the client groups. Finally, Statistics Canada used sophisticated statistical tools to determine whether BDC clients performed better than non-clients and, if so, to what extent.

How was BDC's impact measured?

The results presented in this report were estimated by Statistics Canada using actual data from tax filings, administrative records, and other sources of information on small and medium-sized businesses. The estimates provide an independent and objective assessment of BDC's impact on its clients.

Statistics Canada used a three-stage approach to assess BDC's impact. Each step is described below.

1. **BDC provided Statistics Canada with a list of 66,064 financing clients' records and 2,278 advisory services clients' records.**

   The Canadian statistical agency matched these lists to the Business Register. These new client lists covered the years 2016 to 2017 and were added to the 54,658 financing and advisory services clients' records already matched for the 2008 to 2015 period.

   The matches were constructed from the names, addresses and phone numbers of business clients. The match rate for the 2016 to 2017 period was 99.77% in the financing client list and 99.69% in the advisory services client list.

   The impact analysis for the 2014 to 2018 period was based on a total of 52,886 unique BDC clients, consisting of 42,636 businesses that received financing only, 3,373 businesses that received advisory services only and 6,877 businesses that received both types of services.

2 **Statistics Canada then used the National Account Longitudinal Microdata File, an administrative data bank that makes use of administrative tax records, the Business Register, and the Survey of Employment, Payrolls and Hours.**

The file was used to create a control group of non-clients and to retrieve information on the variables of interest for the study (revenues, employment, productivity, profitability and survival rate).

The conditional matching analysis was then implemented using propensity scores based on the means of key firms' characteristics: age, revenues, assets, liabilities, number of employees, industry at two-digit NAICS and regions. The means were computed for the relevant years (i.e., using the averages of the three years prior to receiving BDC services). Furthermore, each client was compared to a pool of five non-client firms.

3 **Finally, Statistics Canada carried out regression analyses to determine whether the performance of BDC clients after services were provided differed statistically from that of non-clients, and to measure the amplitude of this difference, if any, on a set of variables.**

These variables included growth in revenue, employment, productivity and profitability, and the survival rate.

The main results of the impact analysis on these variables are presented in the following section. Results on productivity and profitability are not presented because they were not statistically different from zero most of the time. All results are expressed in percentage points. For each service (financing, advisory or both), the effects are presented as averages for years after the intervention.

Comparison with previous results

The previous impact study was conducted by Statistics Canada for the years 2008 to 2015 and covered the Great Recession of 2008–09. BDC's impact on its clients' revenue growth was greater for all types of services during this period than during the 2014 to 2018 period covered by the most recent impact study.

The differences in results could be explained by the different time periods covered in the two studies, as well as by the different number of years included in each evaluation. BDC's countercyclical role resulted in a larger impact during the Great Recession than during the 2014–15 oil crisis, the period covered by the latest study. BDC's impact on client revenue growth was positive during both periods.

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