



Study – October 2022

**Inflation, Labour Shortages
and Supply Challenges**
Embrace Productivity to Thrive
in the Current Context



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Message from the → Chief Economist



Pierre Cléroux
Vice President, Research and
Chief Economist, BDC

Helping improve the productivity of Canadian businesses has always been one of our main priorities. This study unequivocally shows that this is even more relevant in the current economic context.

Entrepreneurs who put productivity improvement at the forefront of their business processes do much better than others. Not only do economic challenges such as inflation, labour shortages and supply issues affect them to a lesser extent than others, but their company has a significantly higher valuation.

These findings are based on a BDC survey of more than 1,000 Canadian SMEs, as well as an analysis of Statistics Canada data comparing the most productive 10% of SMEs with other businesses in their industry.

“Businesses that improve their productivity also increase their value.”

Given the critical role productivity plays in the competitiveness of Canadian companies, what can you do to make your business more productive? The answer is simple: measure your productivity, optimize and automate your processes, and keep a constant eye toward improvement.

Highlights

This study is based on a June 2022 BDC survey of more than 1,000 Canadian businesses. The study also uses an analysis of Statistics Canada data that compares the most productive 10% of SMEs against other businesses in their industry.

Businesses that focus on productivity

All Canadian businesses

Consider inflation a challenge

39%

61%

Are experiencing labour shortages

40%

58%

Are facing supply chain problems

28%

42%

4 steps to improve your productivity



1. **Measure** your company's performance against your peers.
2. **Optimize** your processes by eliminating waste of time and money and try to get the most out of your resources.
3. **Digitize** your processes to gain efficiency and automate certain processes—regardless of the sector or industry.
4. **Continuously improve** your products, services and processes, including the training of your staff.

The most productive 10% of Canadian SMEs generate, by employee:

6X more sales

5X more profits

4X higher EBITDA¹



This results in a much higher company valuation.

Get an unbiased ranking of your company's productivity by using the new business performance benchmarking tool.



¹ Earnings before interest, taxes, depreciation, and amortization.



Three challenges threatening the growth of Canadian SMEs

-
1. Inflation
 2. Labour shortages
 3. Supply chain problems
-

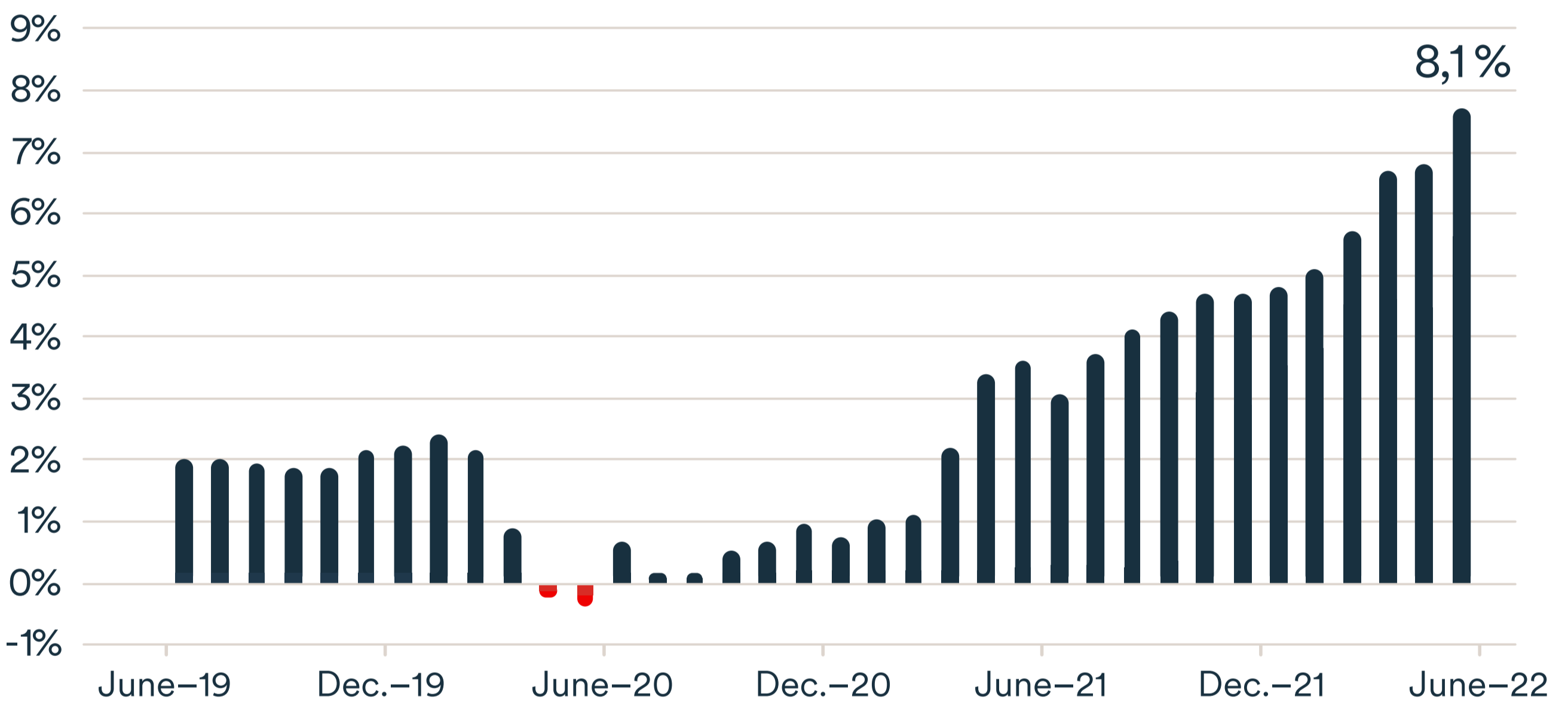
Challenge #1

Inflation is at historic levels in Canada

The inflationary surge in Canada is hurting small business owners. In June 2022, the annual price increase was over 8%, a 40-year high. To rein in inflation, the Bank of Canada plans to continue increasing its key policy rate.

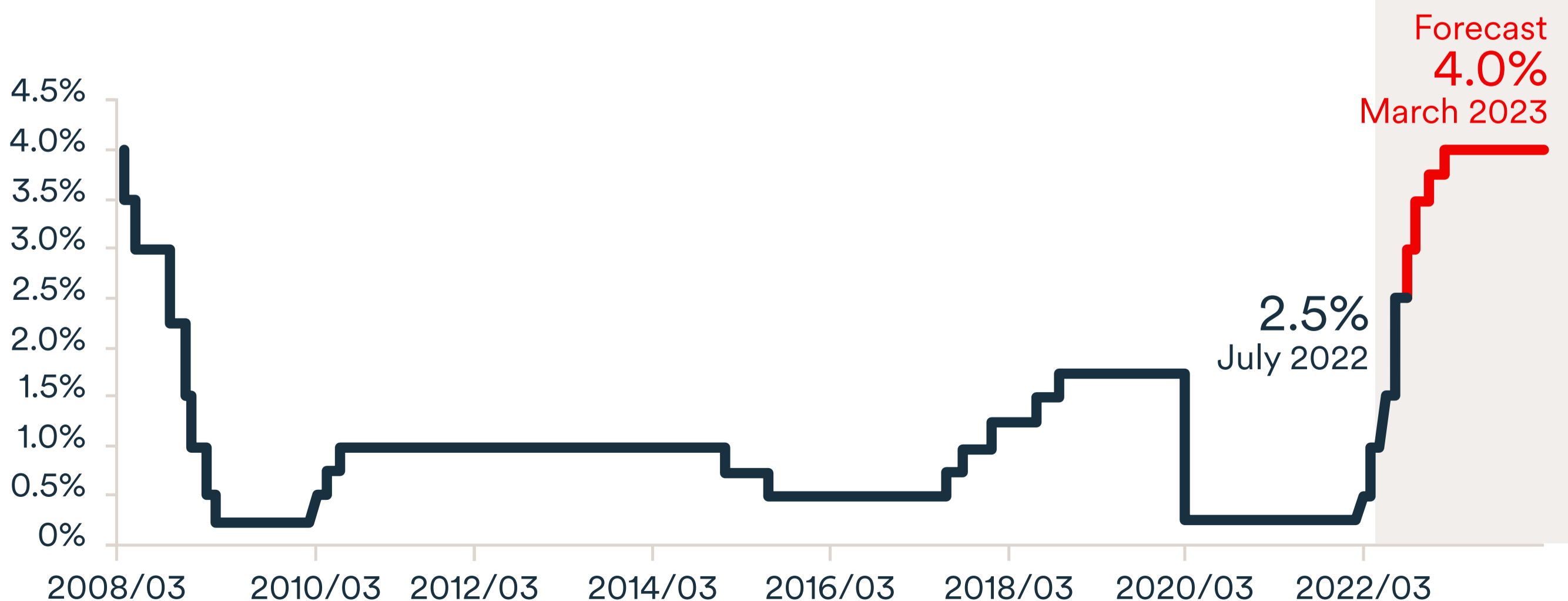
Small business owners will need to adapt to inflation, such as rising input and wage costs and higher borrowing costs to finance expansion and modernization projects.

Graph 1: Canadian inflation measurement, June 2019 to June 2022



Source: Statistics Canada.

Graph 2: Historical and forecasted Canadian interest rate, March 2008 to March 2023



Sources: Bank of Canada; BDC Research and Economic Analysis.

Challenge #2

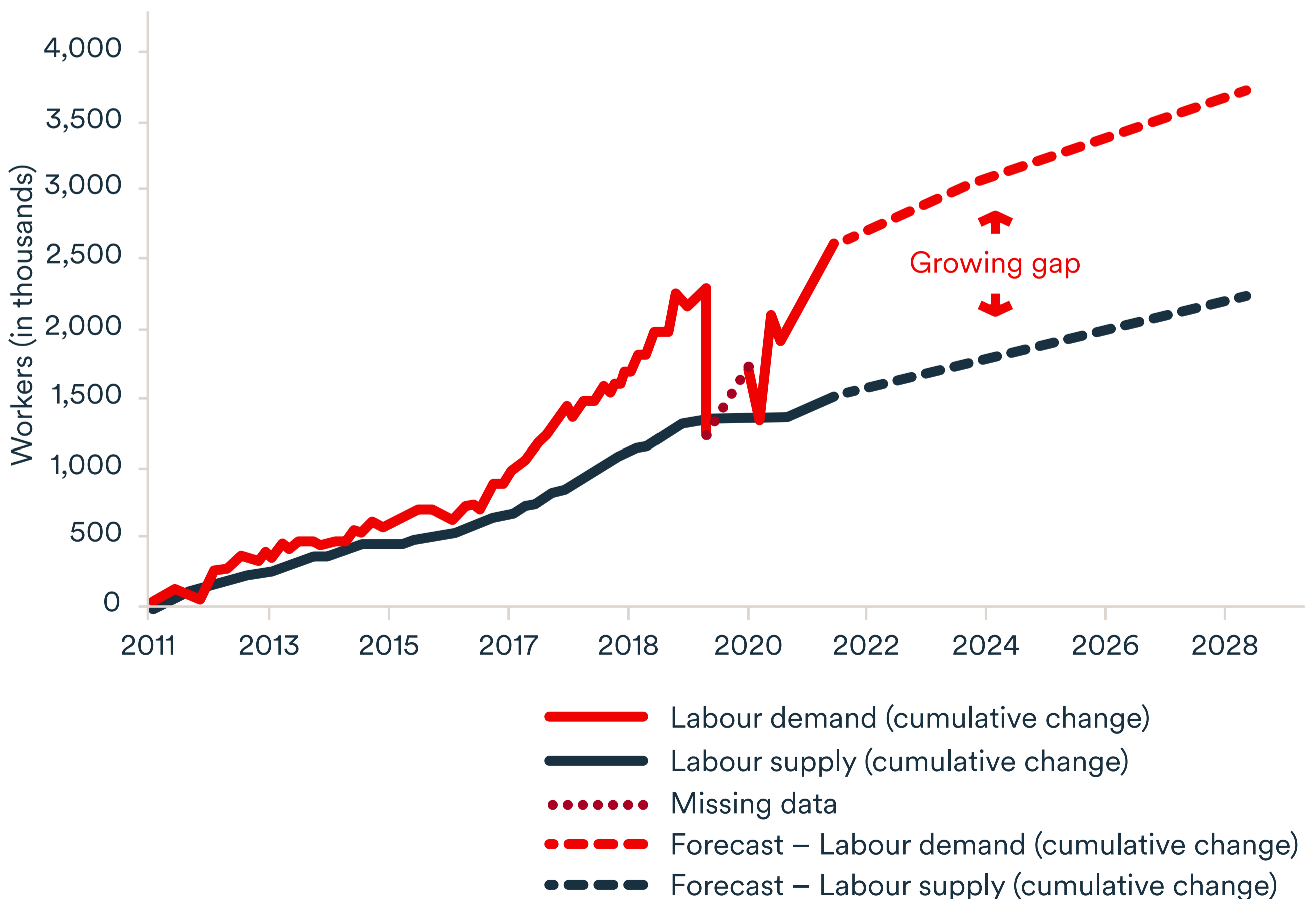
Labour shortages are not going away

Labour shortages are nowhere close to being resolved. They are even expected to grow over the decade due to:

- aging population, which reduces the pool of available workers
- one in five workers retiring in the next 10 years
- slower immigration over the past two years, which created a shortage of 440,000 workers in Canada.

Business owners cannot count on a return to normal. They need to find new ways of working to become more efficient.

Graph 3: Gap between labour supply and demand



Note: Labour demand includes workers who are employed, as well as job vacancies. Labour supply refers to the total labour force, aged 15 to 65.

Sources: Statistics Canada's Labour Force Survey and Job Vacancy and Wage Survey; Employment and Social Development Canada's Canadian Occupational Projection System (COPS) – 2019 to 2028; calculations by BDC.

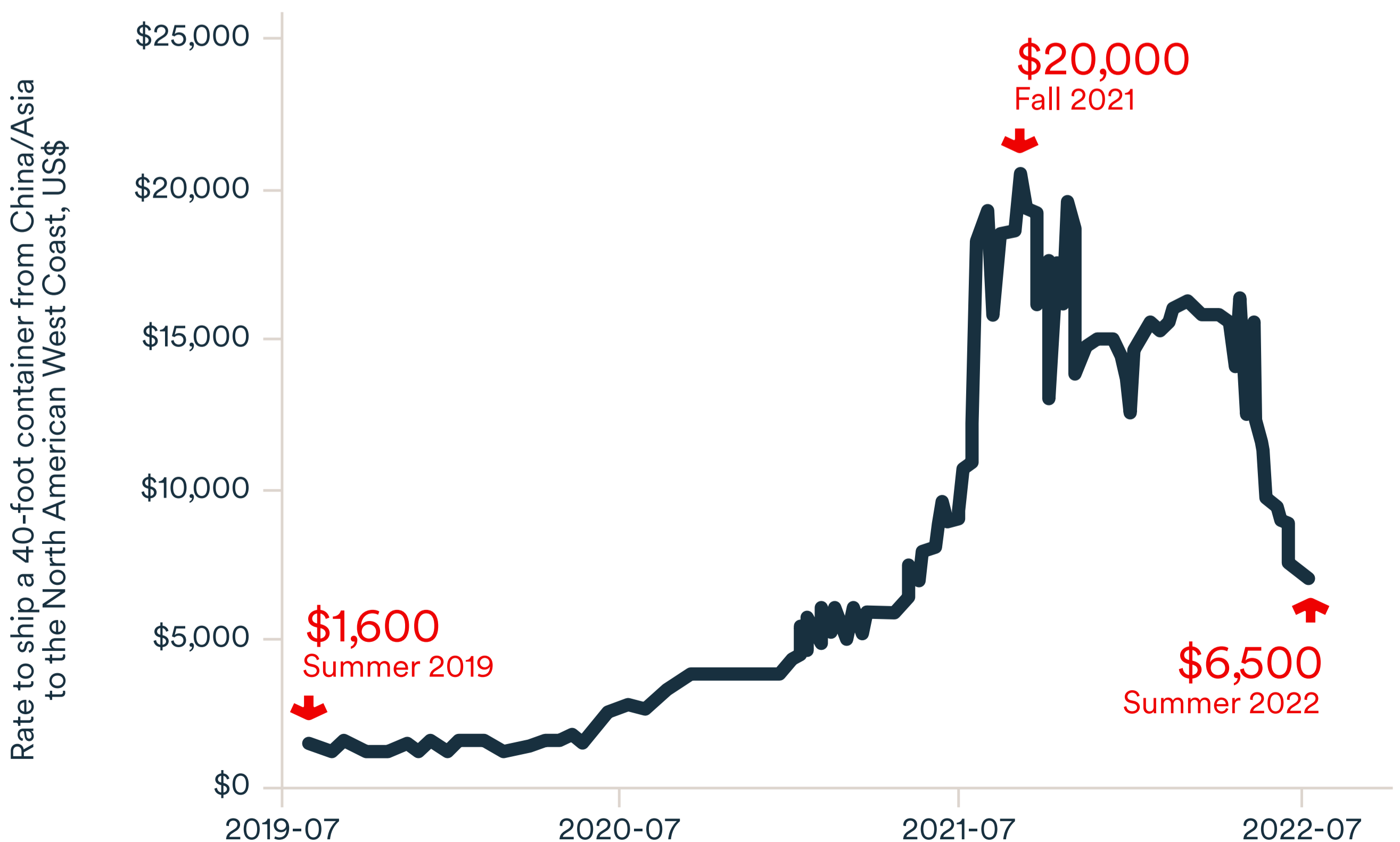
Challenge #3

Supply chain problems are decreasing but continue to pose a risk

Canadian businesses have been facing unprecedented challenges in procuring supplies for the past two years. Public health restrictions have, for example, resulted in production shutdowns. There has also been an upward pressure on transportation costs due to congestion at many ports, among other reasons.

Logistical challenges are beginning to ease, with average container rates between China and the North American West Coast dropping from a peak of \$20,000 in fall 2021 to \$6,500 in summer 2022. Nevertheless, rates remain four times higher than in summer 2019.

Graph 4: Rates for container transport between Asia and the Americas



Challenge #3

Geopolitical uncertainty also remains high, with the war in Ukraine and Sino-American tensions continuing to put supply chains at risk.

As a result, the risk of shortages remains high, and many entrepreneurs will continue to face supply issues in the coming months.

Graph 5: Several events are disrupting supply chains

British Columbia
Floods in 2021



Port of Los Angeles
Unloading delays



Ukraine
War



China
Zero-COVID
policy



Suez Canal
Blocked in
July 2021



Most Canadian businesses are struggling to manage these issues

Challenges

Consequences

61%

of businesses have difficulty dealing with inflation



74%

saw their profits decrease

72%

are facing higher operating costs

62%

now have less cash

58%

of businesses have difficulty recruiting workers



45%

have higher labour costs

44%

experienced a decrease in sales or revenues

43%

are facing higher operating costs

42%

of businesses are experiencing supply problems



69%

are experiencing longer delivery times

63%

are facing higher operating costs

54%

saw their profits decrease

What can businesses do to respond?

Businesses that are focused on productivity* do better.

	Businesses that focus on productivity	All Canadian businesses
Consider inflation a challenge	39%	61%
Are experiencing labour shortages	40%	58%
Are facing supply chain problems	28%	42%

* SMEs that measure and compare their productivity, and feel more productive than their peers in the same industry. Source: BDC, Productivity Survey, June 2022.



Eight Ounce Coffee

When supply chains brew up trouble

Jennifer (Jen) and Wes Farnell had spent years working corporate jobs in the U.K. but wanted more freedom to make their own decisions and not be a cog in a machine.



When they returned to Calgary in 2011, the couple set their sights on opening a new café. But they quickly noticed that much of the equipment for sale in those London cafés couldn't be bought in Canada.

The couple pivoted on their café plans and launched an online platform to sell coffee equipment. The new company would be called Eight Ounce Coffee.

The advantages of running a business were clear at the beginning, when the operation was home-based and goods were delivered out of a car trunk. But as the business grew—it employed over 40 people in 2022—the couple began feeling pressure with logistics, the rising cost of supplies and weak links in supply chains. Their shipping warehouse was a particular sore point.

“We got to the point where we were throwing more and more people at the problem,” says Jen.

They finally turned to BDC Advisory Services to help eliminate inefficiencies and improve how their operations were organized.

“We got to the point where we were throwing more and more people at the problem,” says Jen.

Warehouse reorganization pays off

Wes, Jen and their BDC advisors began by focusing on the heat map, which illustrated where the most activity was taking place in the warehouse.

“We had everything grouped by brand,” remembers Wes, explaining how their pickers would walk to the end of the warehouse to get an item.

The heat map allowed the company to correct that by identifying the most popular products, which could then be placed near the packing station.

Efficiencies were also found by having separate pickers and packers, with positions rotated to avoid boredom.

“So, you might be a picker all morning and then you might be a packer in the afternoon,” explains Wes. “You’re not starting and stopping over and over. You’re just doing something continuously. So that really streamlined things.”

As an added benefit, coffee equipment is now getting to their customers more quickly.

“Shipping times for our larger wholesale orders were taking up to three weeks. Now orders are completed within 48 hours,” says Wes.

Same goes for their retail requests, which would take at least a week to fill. “We are now shipping within 24 hours at the very most,” he adds.

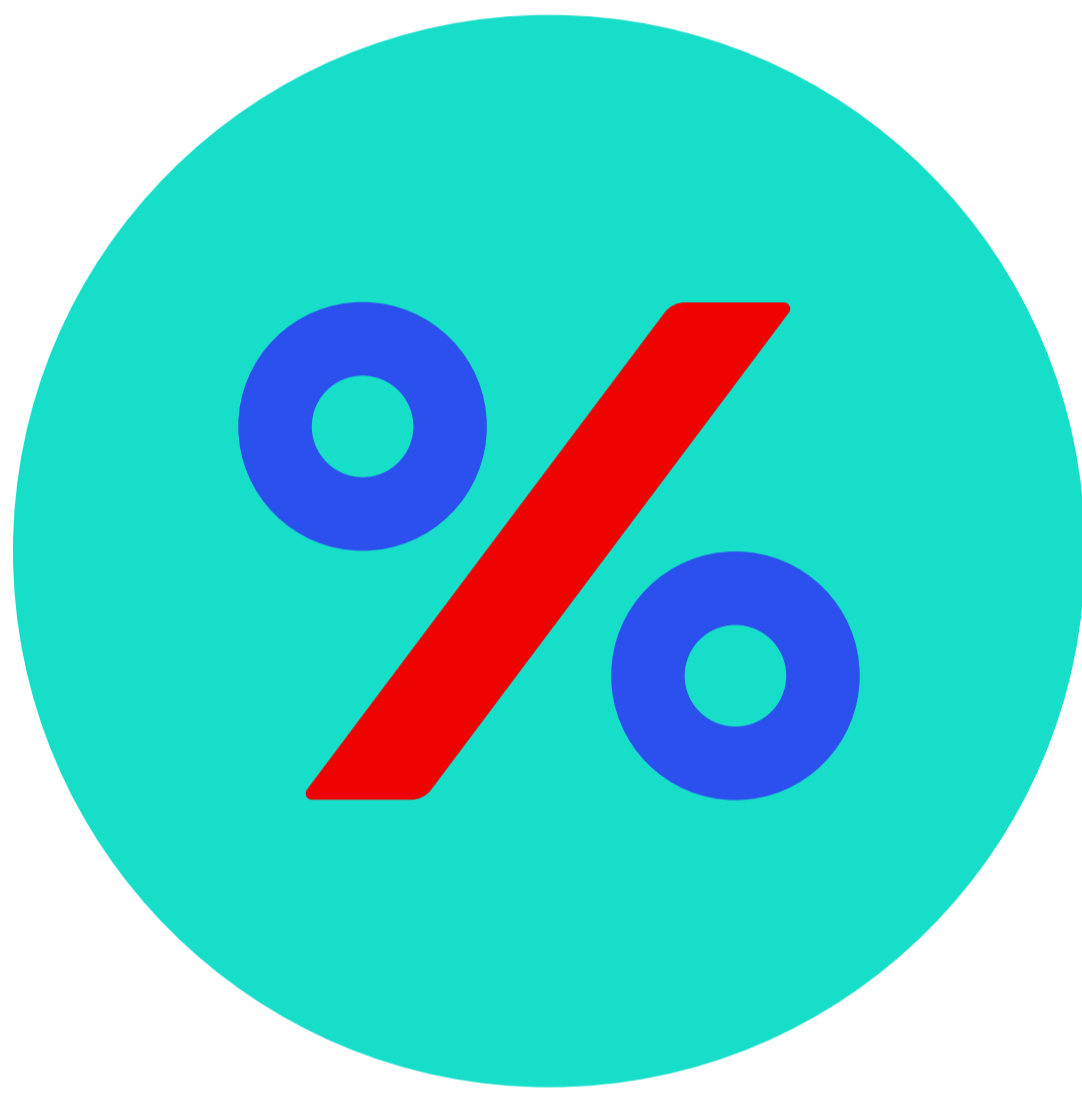
The company’s capacity has also increased. The average amount of orders shipped out was previously between 40 and 70 a day—now it’s between 150 and 250, with the company able to scale up to 450 orders. 📈

“We were constantly behind and we couldn’t keep up with the shipping.”

Jen Farnell, Co-Owner,
Eight Ounce Coffee



What solutions have companies implemented?



Inflation

- Two-thirds of businesses (66%) have adapted by increasing their prices. While this strategy may work in the short term, it could ultimately affect their competitiveness.
- A greater number of companies that focus on productivity have been able to mitigate rising costs by improving operational efficiency, namely, by doing more with fewer resources.
- Businesses that focus on productivity are also twice as likely to invest in automation than their less productive peers (18% vs. 7%), and to no longer offer certain goods and services that create less value for their customers (23% vs. 13%).
- The most productive companies in the current context protect their profit margin by reducing their need for the inputs that produce their goods and deliver their services.

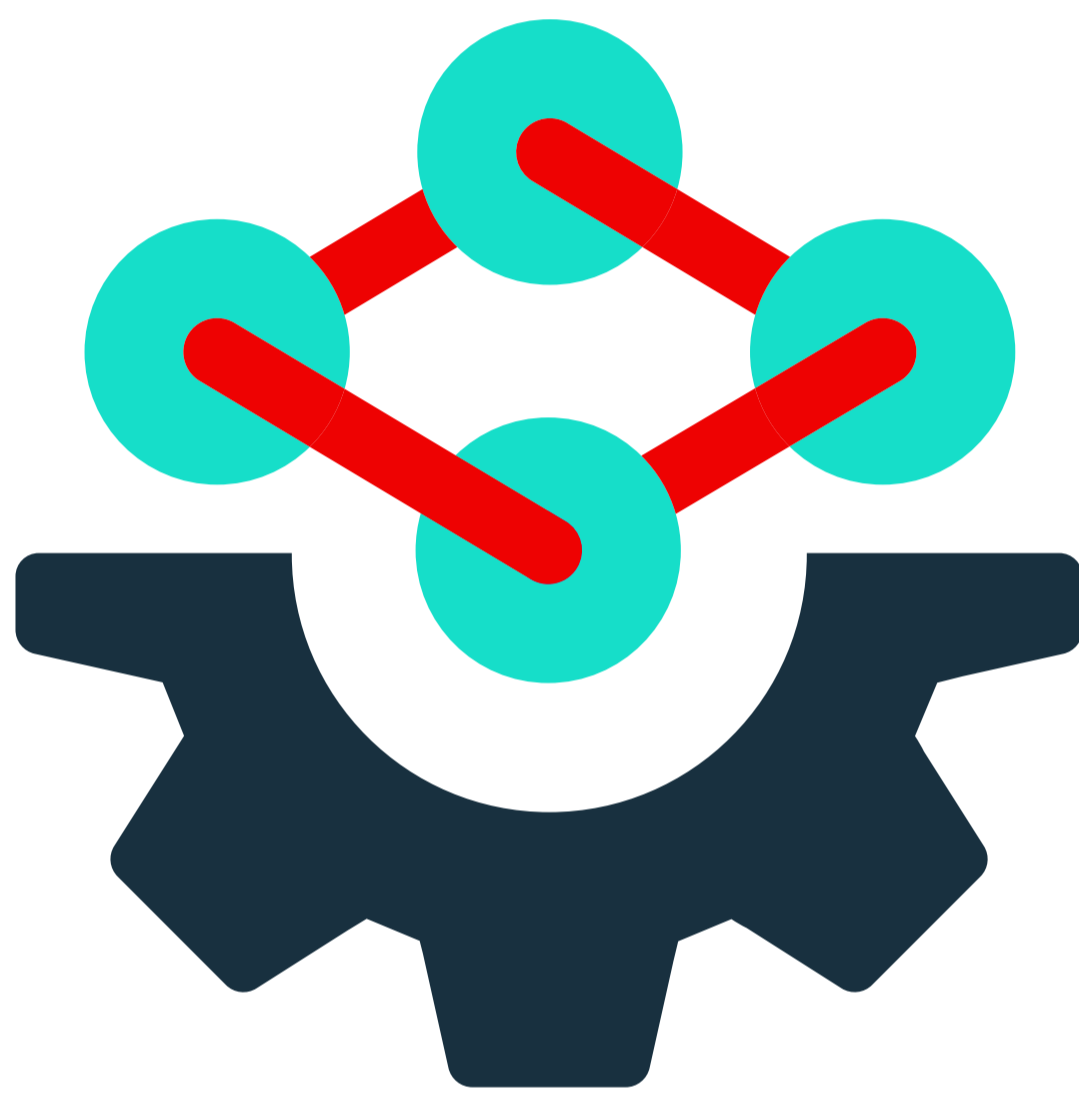
What solutions have companies implemented?



Labour

- About half of the businesses surveyed responded to the labour shortage with offers of higher wages (50%) or more flexibility (43%) in an attempt to attract qualified personnel.
- A more sustainable solution, however, is to make better use of existing resources by increasing employee productivity.
- Our survey shows that businesses that focus on productivity are better at managing labour shortages: they provide training to staff (24% vs. 16%) and managers (30% vs. 8%) to a significantly greater degree, as well as automate and digitize repetitive tasks (26% vs. 9%), which allows each worker to produce more per hour worked.

What solutions have companies implemented?



Supply chain

- ➔ Supply issues are difficult to resolve, even for the most productive businesses, with one-third having difficulty dealing with supply chain disruptions—a higher proportion than in the case of inflation or labour shortages.
- ➔ However, leveraging productivity frees up resources that can be reallocated to supply management. This is why the most productive companies are significantly more likely to have improved the efficiency of their procurement processes (27% vs. 13%), increased their inventories (33% vs. 21%), and allocated a portion of their workforce (17% vs. 7%) to supply chain management.

Productivity improves financial performance

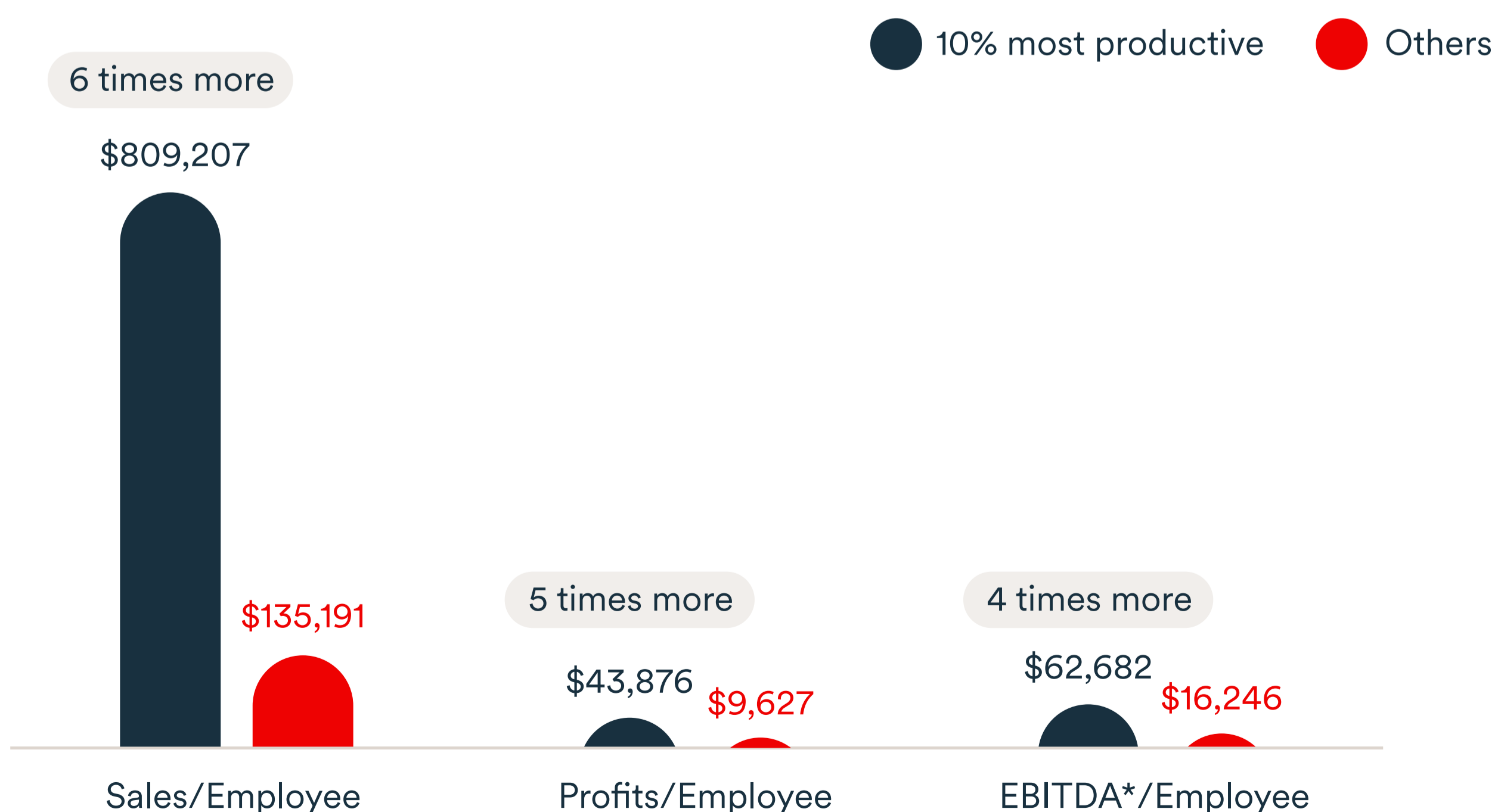
A key finding is that productivity plays a key role in your financial performance.

Compared to their peers in the same industry, with the same number of employees (about 10), for instance, the most productive 10% of Canadian SMEs generate:

- ➔ 6 times more sales,
- ➔ 5 times more profit, and
- ➔ 4-times-higher EBITDA*

The most productive SMEs also have a higher valuation, since it can be expressed as a multiple of EBITDA.

Graph 6: Financial indicators of Canadian SMEs that are highly productive in relation to other firms in the same industry



* Earnings before interest, taxes, depreciation and amortization.
Sources: Statistics Canada, special compilation based on tax data; BDC calculations.

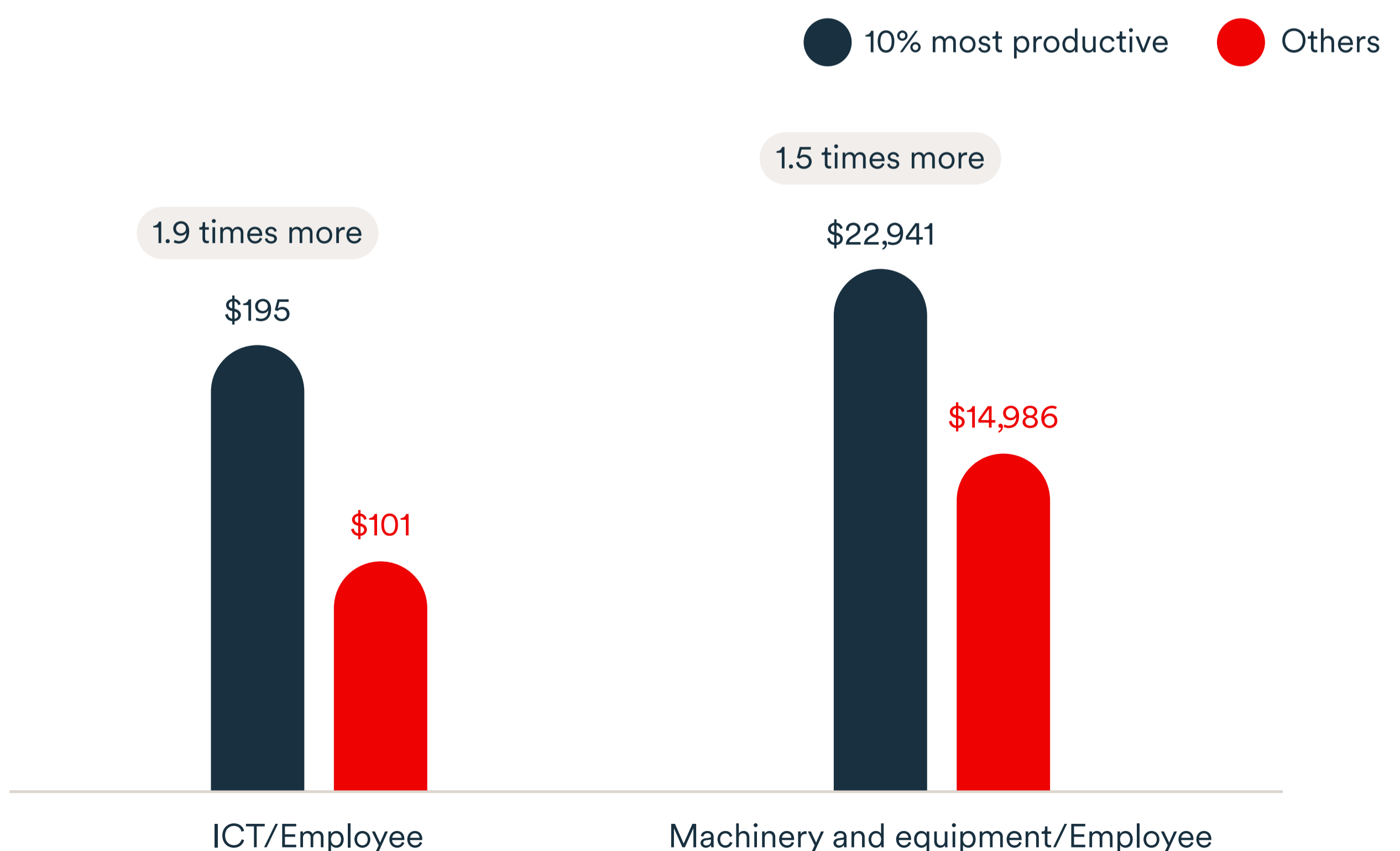
Improving productivity requires investing in ICT

The evidence is clear: The most efficient companies are investing more in digital and machinery.

For example, highly productive firms invest almost twice as much in information and communications technologies (ICT).

They also invest 1.5 times more in machinery and equipment.

Graph 7: ICT and machinery and equipment investments by highly productive Canadian SMEs compared to other firms in the same industry

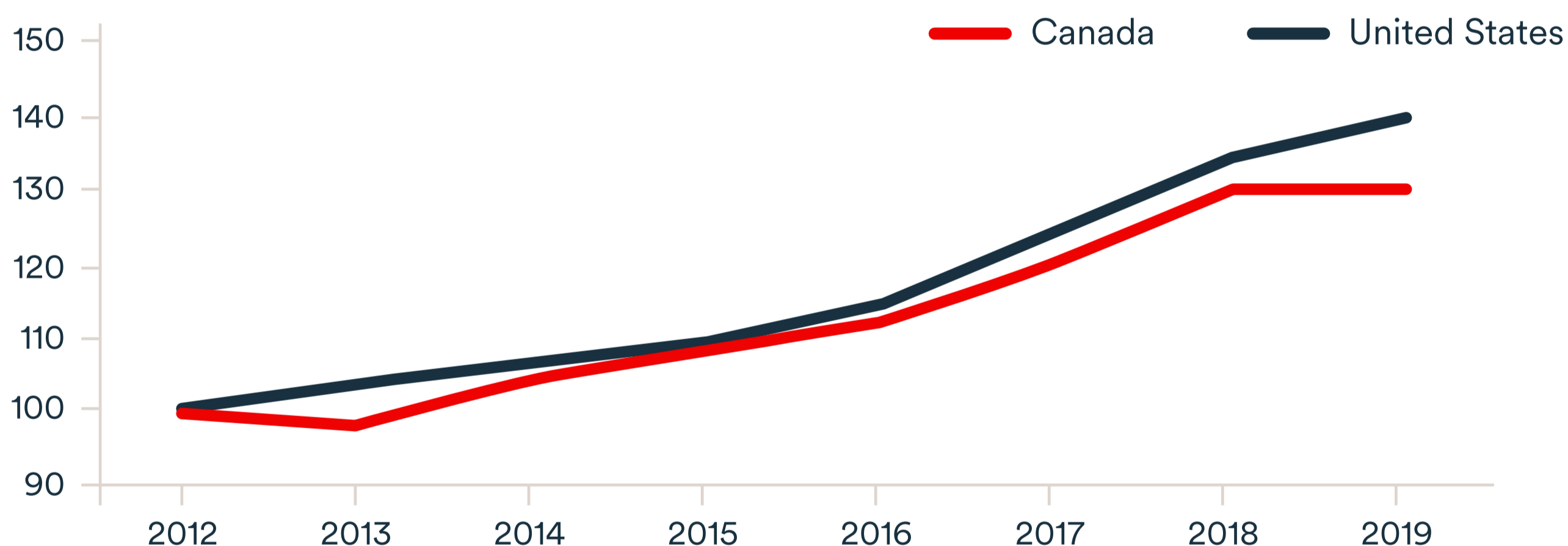


Canadian companies are underinvesting in ICT

Underinvestment by Canadian companies compared to their G7 competitors has been taking place for several years and the gap is widening, particularly with the U.S.

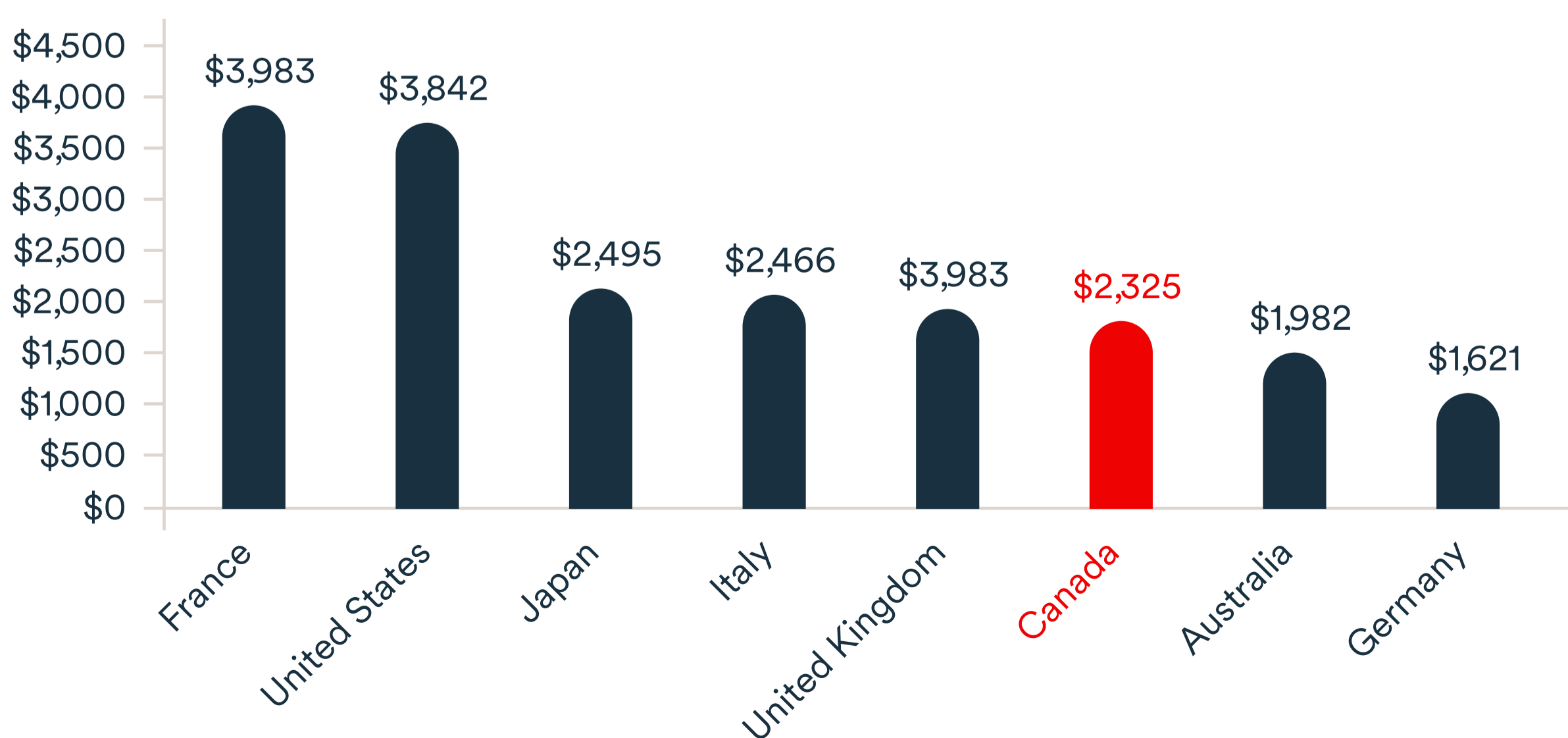
The relative weakness in ICT investments, such as hardware, software and databases, is partly responsible for the slower productivity growth of Canadian companies compared to their counterparts in the U.S., Japan and Europe.

Graph 8: Company ICT investment per worker, Canada and the U.S., US\$ with purchasing power parity (2012 = 100)



Source: BDC estimates based on OECD data.

Graph 9: Company ICT investment per worker, US\$ with purchasing power parity, 2017



Source: BDC estimates based on OECD data.

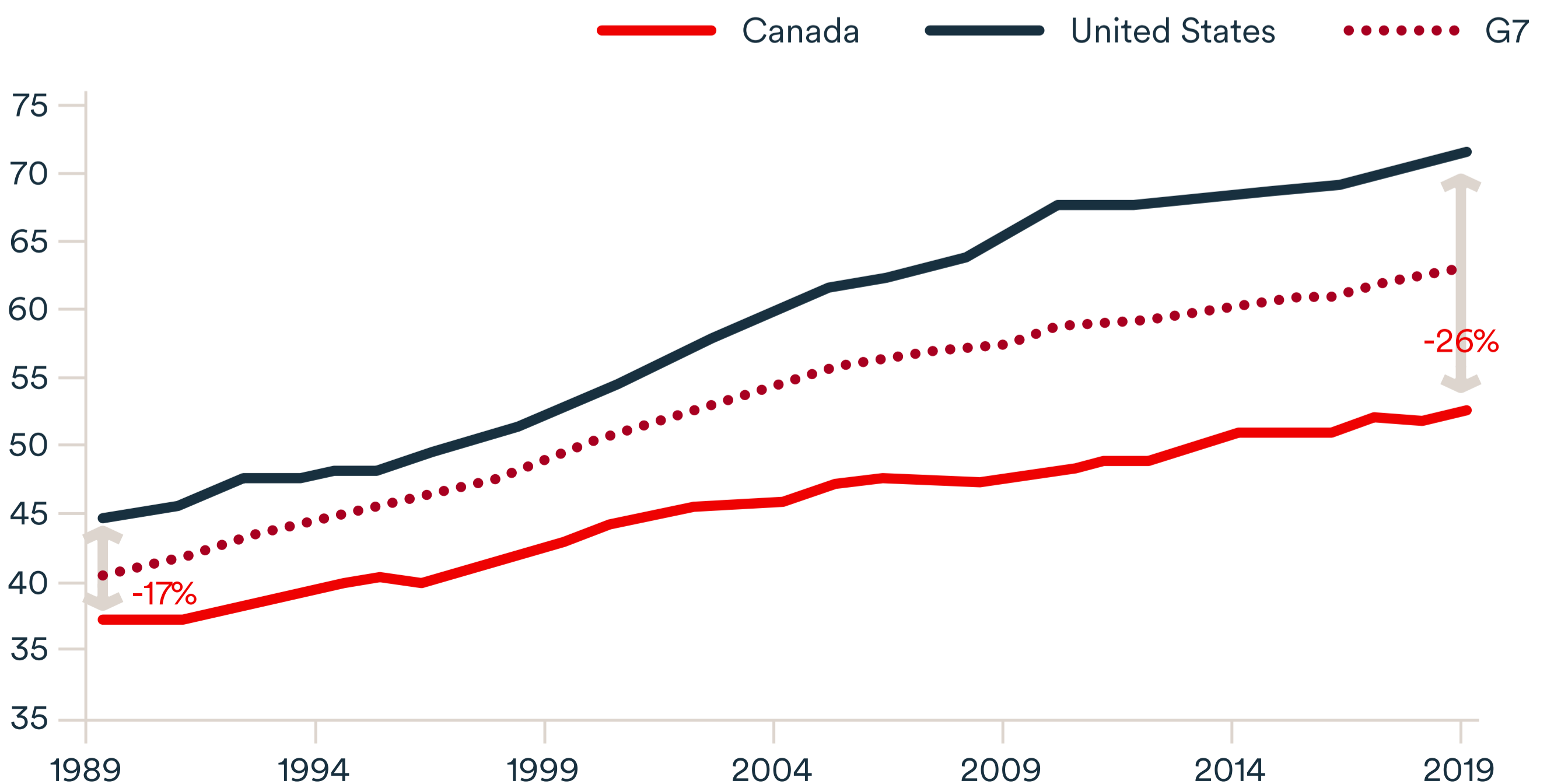
Canadian business productivity growth is slower than in the U.S.

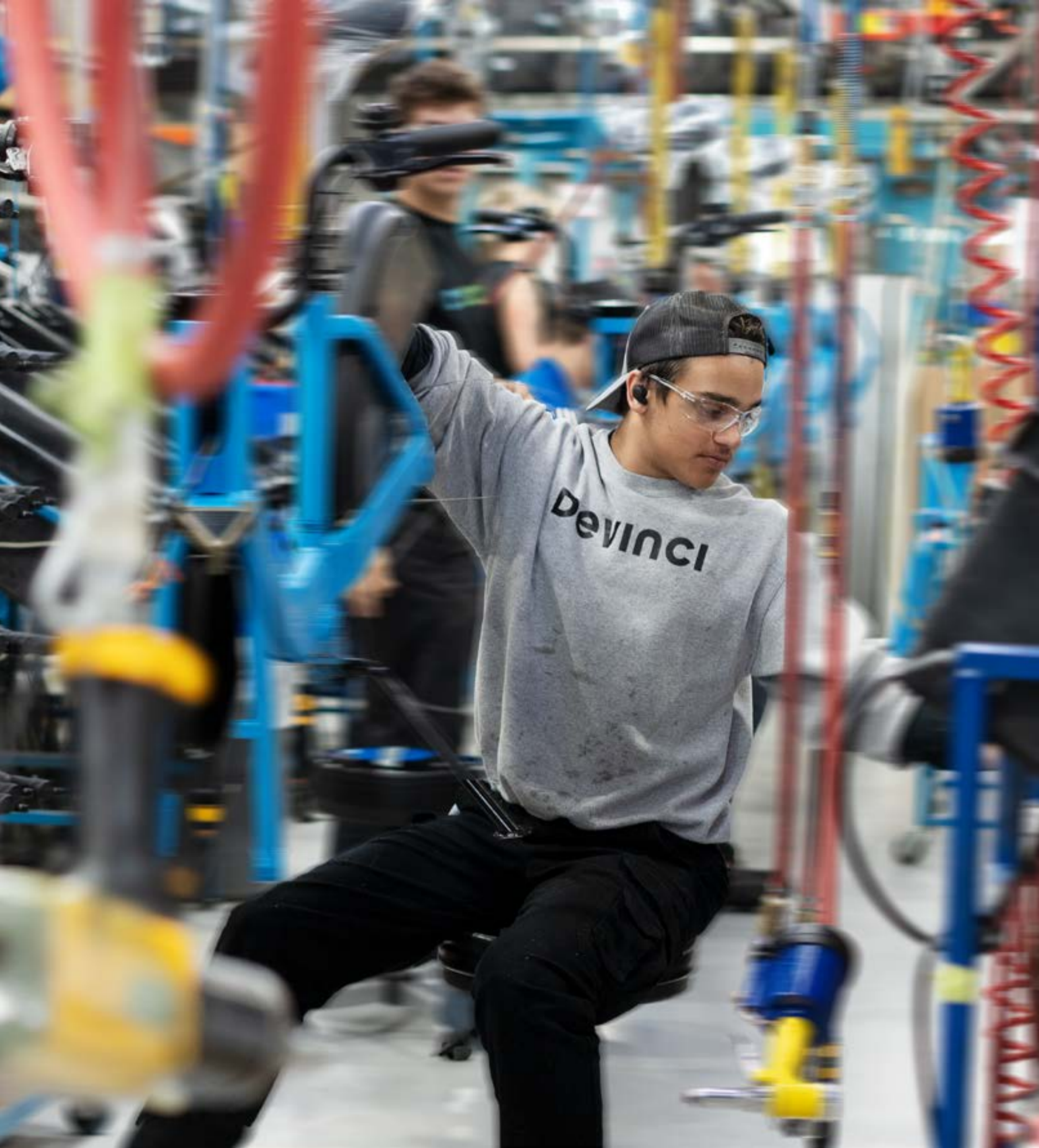
Canadian businesses are slower to improve their productivity compared to U.S. and G7 companies.

The Canada-U.S. productivity gap is widening rapidly due to Canadian underinvestment in ICT.

As a result, the competitiveness of Canadian companies is declining relative to their U.S. competitors.

Graph 10: GDP per hour worked, US\$ at constant 2010 prices and with purchasing power parity





Devinci Bikes

Increasing efficiency to address supply and labour issues

Francis Morin, General Manager at Devinci Bikes, had hit a wall. Even though the pandemic led to an explosion in demand for bicycles from the Chicoutimi-based company, the parts he needed to manufacture and assemble them were tied up on the other side of the Pacific.



“Tens of thousands of containers were stuck at different ports. This made it difficult to find containers to ship the parts we were purchasing in Asia,” says Morin.

Despite this, the company managed to stay on track and maintain a good pace of growth, by focusing in particular on improving its processes and productivity.

Supply chain and labour challenges

Since suppliers did not want to keep the parts in their factories, they prioritized selling to customers who could move the stock. “As a result, we had to find local storage options to ensure our supply.”

Devinci also shifted some of its focus from international to North American markets, which simplified transportation management. And it diversified its suppliers to ensure a steady stream of components.

The company also ordered components in advance—many more than usual—to ensure supply.

On the labour side, Devinci was able to reallocate some of its staff from manufacturing to assembly. “Our most experienced employees made it possible for us to be nimble with our roles and improve the training process,” says Morin.

Devinci also stepped up its recruitment efforts, with the company looking internationally to fill key jobs, such as welders and machinists. Lastly, the company redesigned its factory to improve the flow of materials and, in turn, its efficiency.

“Thanks to all that, we will be doubling our assembly capacity to support the growth of Devinci and of our two major customers,” says Morin.

Automation plans

North American companies that want to remain competitive have no choice but to increase automation in their factories,” acknowledges Morin. Devinci is no exception.

For this reason, the manufacturer has launched a second phase for automating its production.

To improve the flow of materials and information, Devinci conducted a review of its factory layout. The company has put a priority on it being both an efficient and safe place for its employees.

“We have various projects that we want to pursue in the short term. Our investment plan is already underway, with a view to doubling production capacity within 12 to 18 months. We have also purchased equipment that will be essential for the implementation of our Devinci 4.0 factory strategy,” Morin explains.

As part of its automation philosophy, Devinci has installed a new ERP system; it has also established a new logistics centre to supply its additional assembly lines.

“This will enable us to gear up—because an ERP is the backbone of operations,” notes Morin. Among other things, the new system will be more intuitive and user-friendly, with an improved interface.

With the efforts it has made to increase efficiency and address its supply and labour issues, Devinci Bikes is on track for the future. And the future looks bright: the company expects to double its sales within five years. ←



“Our teams had to plan and order our product lines up to two years in advance to reserve production time with our suppliers.”

Francis Morin,
General Manager,
Devinci Bikes



How to increase efficiency?

Four steps to improve a company's productivity

46%

of businesses that measure productivity increase revenues and/or profits.

- Measure and compare your productivity
- Implement performance indicators
- Use dashboards to track performance

#1

Operational efficiency is the #1 strategy for businesses that focus on productivity.

- Identify areas of waste
- Prioritize improvement ideas with an action plan
- Standardize your processes



11%

of businesses train their managers in improving productivity.

- Build a continuous improvement culture
- Engage your employees while introducing changes
- Train your employees

39%

of the most productive businesses invested in automation compared to 18% of other companies.

- Build a strong digital foundation
 - Integrate your systems
 - Automate your processes

Expert advice



Every business should measure its performance, ideally by choosing measures that will enable it to evaluate the company's most strategic activities.

For example, a company that has on-time delivery as an integral part of its business plan should measure the performance of the processes that make up delivery time. Time it takes to complete each step as well as internal waiting time could be monitored to achieve on-time delivery to clients.

“This will allow them to track how well they are meeting their customer commitments,” says Stéphane Chrusten, Senior Business Advisor, BDC Advisory Services. “The simple act of creating a measure lends importance to the idea being measured and helps us achieve our goals. And we don't necessarily need a complex system.”

How is productivity measured?

Being more productive means increasing performance using fewer or the same amount of resources. The simplest way to measure productivity is to assess labour productivity, which could be measured as the ratio of output produced (goods and/or services) to the amount of labour it takes.

➔ Example: A company produces \$5,000 in goods in 40 hours of work with five workers.

Labour productivity ratio

$$\frac{\$5,000}{40 \text{ hours}} = \$125 \text{ per hour worked}$$

$$\frac{\$5,000}{5 \text{ employees}} = \$1,000 \text{ per employee}$$

Get an unbiased ranking of your productivity with the new [business performance benchmarking tool](#).



Expert advice



To improve your business performance, you will need to reduce waste and inefficiency.

There are eight categories of waste businesses need to tackle:

1. Overproduction
2. Waiting
3. Inefficient operations
4. Transport
5. Inventory
6. Motion
7. Poor quality
8. Misused resources

“Identifying waste is eye-opening and also a steppingstone to operational improvements,” says Anish Ambujakshan, Senior Business Advisor, BDC Advisory Services.

“For example, let’s say there is redundant or incorrect data entry that happens during your customer order fulfilment. Each error is a non-value-added activity and is a waste. Reducing that improves not only productivity, but also employee morale.”

Expert advice



Operational efficiency activities, like process mapping, will set the stage for you to bring in technology to digitize and further improve your productivity.

Technology and digitization, in turn, can lead to automation to help further reduce or even eliminate waste.

The thing to keep in mind is that digitization and automation are not just for manufacturers; businesses in every sector can benefit. In accounting, for instance, software can be used to automatically issue cheques to suppliers each month.

“As you know, the application of technology has advanced considerably in recent years. As business owners, you now have a wide range of technology options

available—whether for upgrading an equipment or a software. Remember, you need to choose the right technology solution for your needs, not necessarily the best one,” Ambujakshan says.

Other tips: From a growth perspective, always consider the scalability of a technology before acquiring it.

Expert advice



To increase productivity, a culture of continuous improvement must be established. And it all starts with business owners.

Business owners are the ones who can make operational improvements a priority for the business. You can also engage employees in this process and encourage them to identify and reduce waste. Also try to give them opportunities to cross-train or upskill, which will reinforce the culture of continuous improvement.

“With the current labour shortage, the expectations of employees have changed. If your business is not well organized and isn’t focused on improvements, your employees will leave. So, make sure you provide a good employee experience,” Stéphane Chrusten explains. Providing your employees and management team with training, for example, can be an important part of that experience.

Data and methodology

This study is based on a BDC survey of 1,008 Canadian SMEs, conducted from June 2 to 13, 2022.

For a probability sample of 1,008 respondents, the maximum margin of error is ± 3.1 percentage points 19 times out of 20. However, given that this survey is based on a non-probability sample, this information is provided for illustrative purposes only. Results were weighted by region and by number of employees that are representative of the Canadian SME population.

The study also uses an original analysis of Statistics Canada's tax and administrative data comparing the most productive 10% of SMEs against other businesses in their industry. Statistics Canada's Economic Analysis Division (EAD) provided BDC with a customized tabulation to identify and characterize highly productive small and medium-sized enterprises in Canada over the most recent three-year period (2017 to 2019) for which data were available. SMEs are defined as businesses with minimum annual sales of \$10,000 and maximum annual sales of \$100 million. Business productivity is defined as the ratio of sales to number of employees.

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