Study – June 2024

Canada's Productivity Puzzle: Solutions for Entrepreneurs

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Authors

Sylvie Ratté, Senior Economist:
Sylvie.Ratte@bdc.ca

Under the leadership of

Arnaud Franco, Director,
Economic Research

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It is based on data that has been analyzed and interpreted by BDC. Any error or omission is the sole responsibility of BDC. All figures in this study have been rounded. Reliance on and use of the information herein is the reader's responsibility.

Message from the Chief Economist

Productivity: It’s time to act

The word productivity is often misunderstood. Productivity doesn't mean you have to work harder or longer to produce more. In fact, productivity is a measure of efficiency. It determines the quantity of services or goods a business can produce with the resources it uses.

This is an essential metric of a company's success, since it dictates its ability to generate cash flow and profits. An unproductive business is leaving a lot of money on the table!

It's also a societal issue. After all, productivity determines our standard of living. Unfortunately, productivity has been stagnating in Canada for far too long, and the reason is well known: companies aren't investing enough. Today, corporate investment per employee in Canada is 41% lower than in the United States. How can we change this?

This study takes stock of productivity in Canada, with a specific focus on SMEs.

"Investments, especially in technology, are one of the key elements that will help you improve your business's productivity."

In particular, it emphasizes the importance of investing in machinery, equipment and technology, including AI. It also suggests solutions by industry to help improve efficiency.

We hope this analysis will provoke discussions within your business about ways to improve your productivity and, consequently, your profitability.

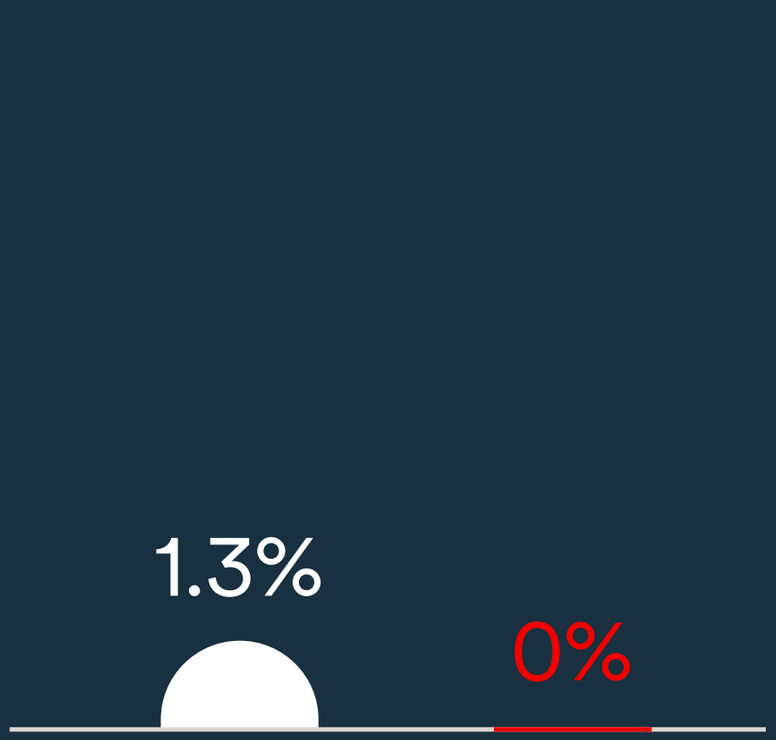
In the context of rising costs and labour shortages, improving productivity has become critical.

The clock is ticking: it's time to act!

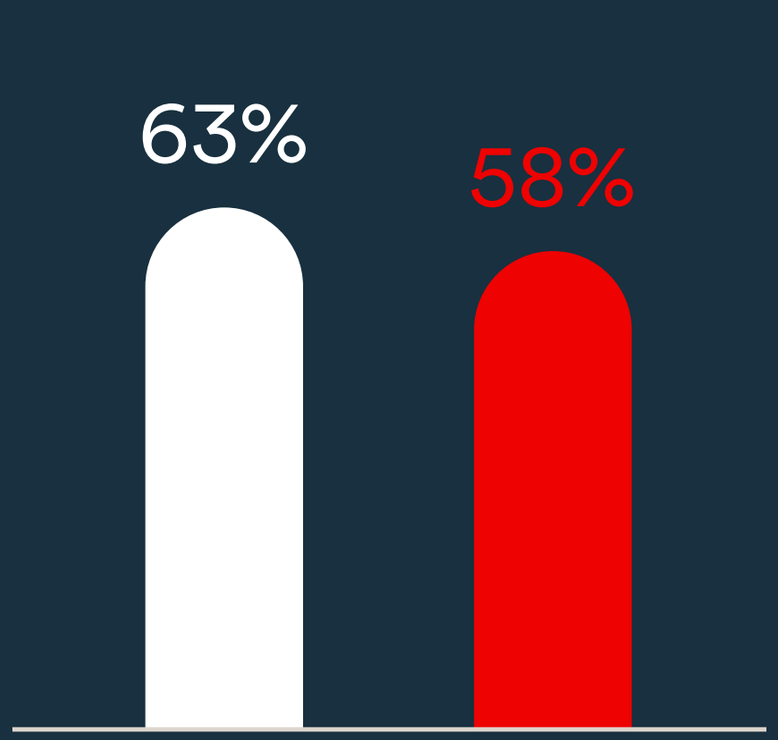
Highlights

Canada’s productivity gaps have widened since the pandemic.

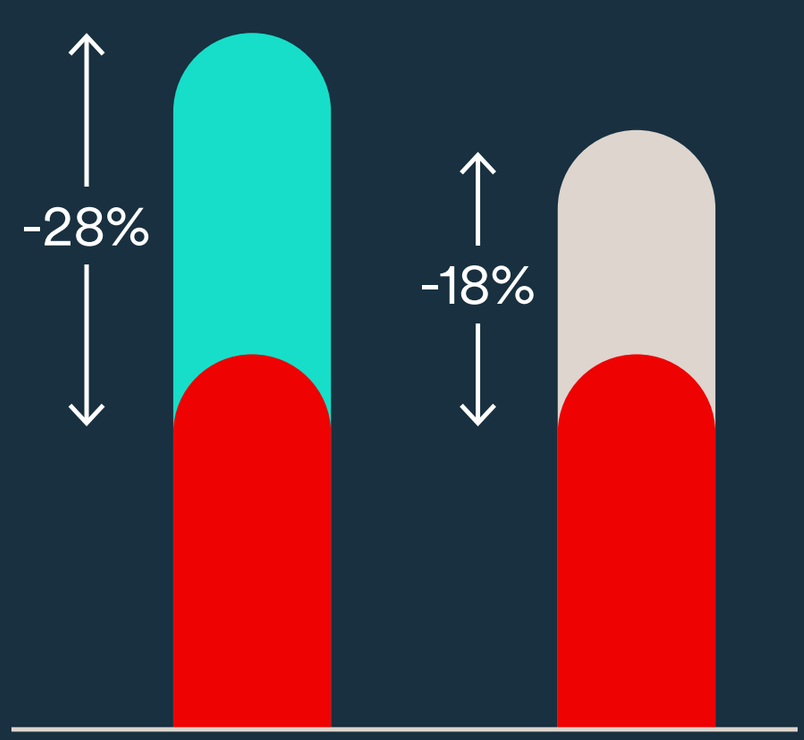
Average annual Canadian productivity increase



Productivity level of SMEs compared to large firms



Canadian vs. international labour productivity in 2022



Canadian productivity is harmed by:

Lower investment	Capital investment per worker by Canadian firms as a percentage of U.S. firms’	↘	44% in 2019 41% in 2022
Lack of innovation	Share of Canadian companies innovating	↘	80% for 2017–19 72% for 2020–22
Reduced competition	Business entry rate	↘	10% in 2019 7% in 2021

Productivity is key to business success

With the same number of employees, the most productive 10% of Canadian SMEs within their industry generate:

x6 more sales **x4** more profits **x3.5** higher earnings EBITDA

These most productive companies invest, per employee:

x1.8 more in ICT **x1.5** more in machinery and equipment

What is productivity and how is it measured?

Productivity is crucial to business competitiveness and financial success

Economists use the term “labour productivity” to refer to the amount of real gross domestic product (GDP) produced per hour worked in a country. An increase in labour productivity is a key factor contributing to an improvement in our standard of living.[1]

For companies, labour productivity is a performance indicator that measures the value added by employees every hour they work.

To measure a company’s labour productivity, we need to take the value added in goods or services generated by the company and divide it by the number of working hours required to produce them.

Figure 1: How to calculate productivity in a business

Suppose it takes your five employees 40 hours to produce goods worth $5,000 (net of the cost of raw materials). The following calculation would allow you to measure your company’s labour productivity:

$$\frac{\$5{,}000}{\text{40 hours or five employees}} = \$125 \text{ per hours worked or } \$1{,}000 \text{ per employee}$$

A simpler way to measure labour productivity is to take annual revenues and profits and divide them by the number of employees working in a company. You can then compare these ratios with those of the previous year to assess your progress and determine what steps need to be taken to increase productivity.

You can use our free Workforce Efficiency Benchmarking Tool to compare your annual revenues and profits per employee with those of other companies in your industry.

1. Real total compensation per hour worked goes hand in hand with labour productivity growth. Carter McCormarck and Guy Gellaty, *Research to Insights: Perspectives on growth, inflation, and affordability* (Ottawa: Statistics Canada, November 16, 2023).

Why is productivity important?

Productivity directly affects your company's financial health

Higher productivity has a direct effect on your ability to increase sales and make more profits. It also makes employees more efficient and contributes positively to their job satisfaction.

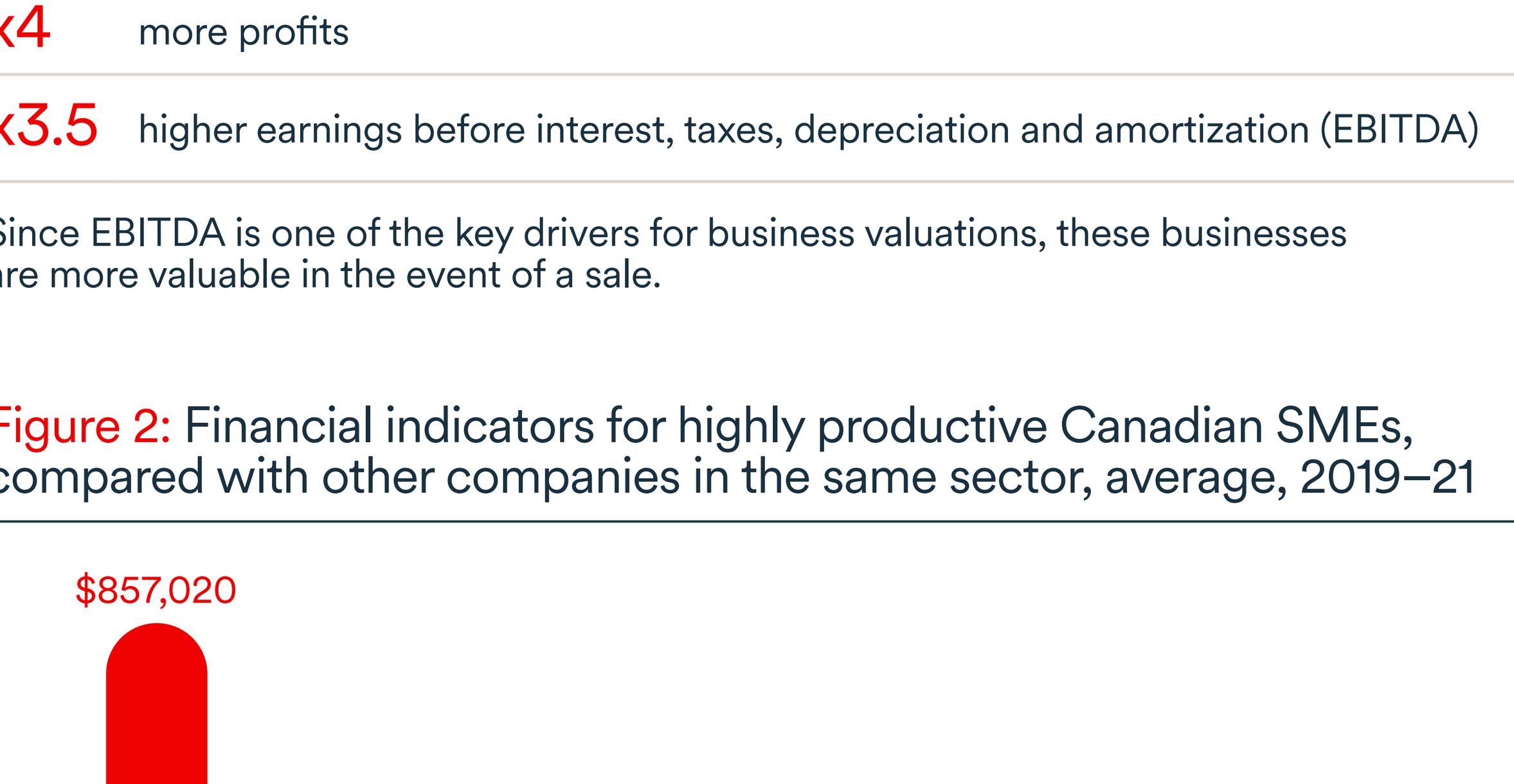
Our analysis of Canadian business data shows that, compared with other companies in the same sector of activity and with virtually the same number of employees:

The most productive 10% of Canadian SMEs generate:

x6	more sales
x4	more profits
x3.5	higher earnings before interest, taxes, depreciation and amortization (EBITDA)

Since EBITDA is one of the key drivers for business valuations, these businesses are more valuable in the event of a sale.

Figure 2: Financial indicators for highly productive Canadian SMEs, compared with other companies in the same sector, average, 2019–21



Source: Statistics Canada, special tabulation based on tax data (average from 2019 to 2021); BDC calculations.

The most productive SMEs invest more

Investment in machinery and technology is one of the main drivers of productivity, regardless of the size of the company.

That's partly because these investments allow employees to produce more goods and services, which can help alleviate labour shortages.

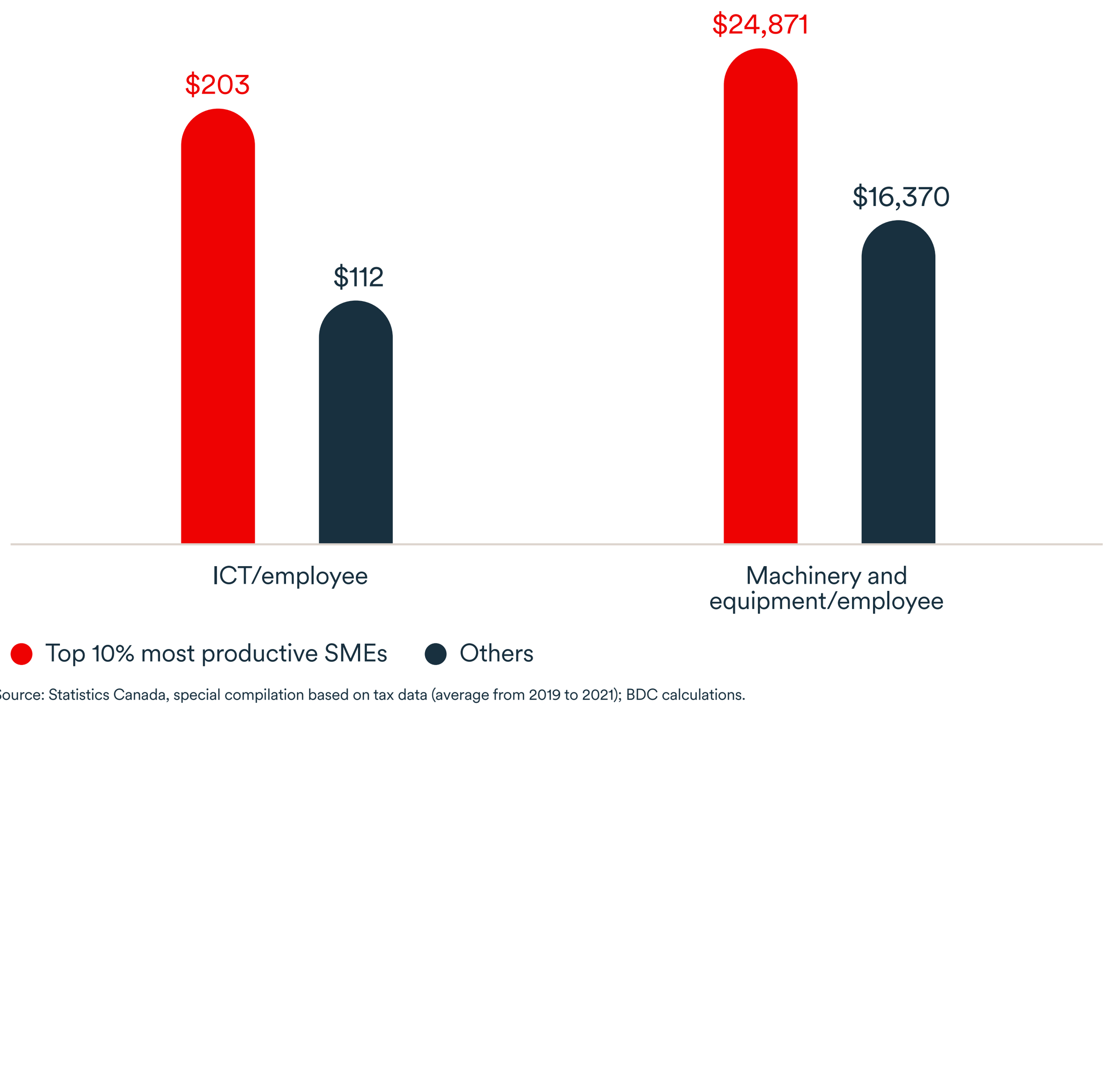
The most productive companies invest:

x1.8 more in information and communications technologies (ICT)

x1.5 more in machinery and equipment

(per employee than other companies do)

Figure 3: Investment in ICT and machinery and equipment by highly productive Canadian SMEs, compared with other companies in the same sector, average, 2019–21



Source: Statistics Canada, special compilation based on tax data (average from 2019 to 2021); BDC calculations.

What's up with Canada's productivity?

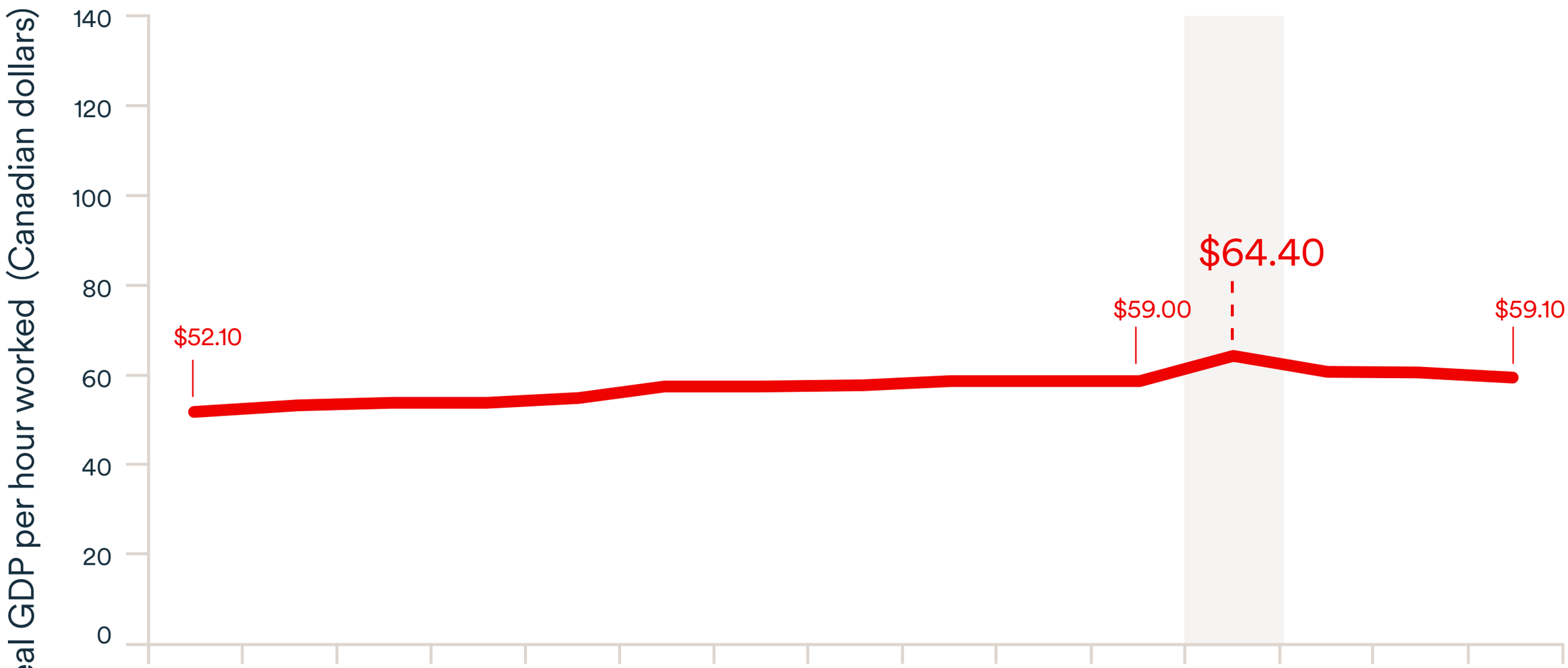
Productivity has declined since the pandemic

After a spectacular 9.2% rise in business labour productivity in 2020,[2] mainly due to the reduction in hours worked at the onset of the pandemic, productivity has gone down.

It appears that business investment in digital technology, e-commerce and remote-work platforms during the pandemic were not sufficient to generate productivity gains after the pandemic.[3]

Indeed, while the average annual labour productivity growth was 1.3% from 2009 to 2019, it dropped to 0% from 2019 to 2023.

Figure 4: Canadian business labour productivity, 2009–23



Source: Statistics Canada, Table 36-10-0480-01. Haver and U.S. Bureau of Labor Statistics.

2. Growth was calculated based on real GDP per hour worked.
3. More Canadian businesses used ICTs in 2021 (85%) than did so in 2019 (80%). As well, one-third (33%) of Canadian businesses had at least some e-commerce sales in 2021, marking an increase from 2019, when one-quarter (25%) recorded sales over the Internet. Statistics Canada, "Digital technology and Internet use, 2021," *The Daily*, September 13, 2022.

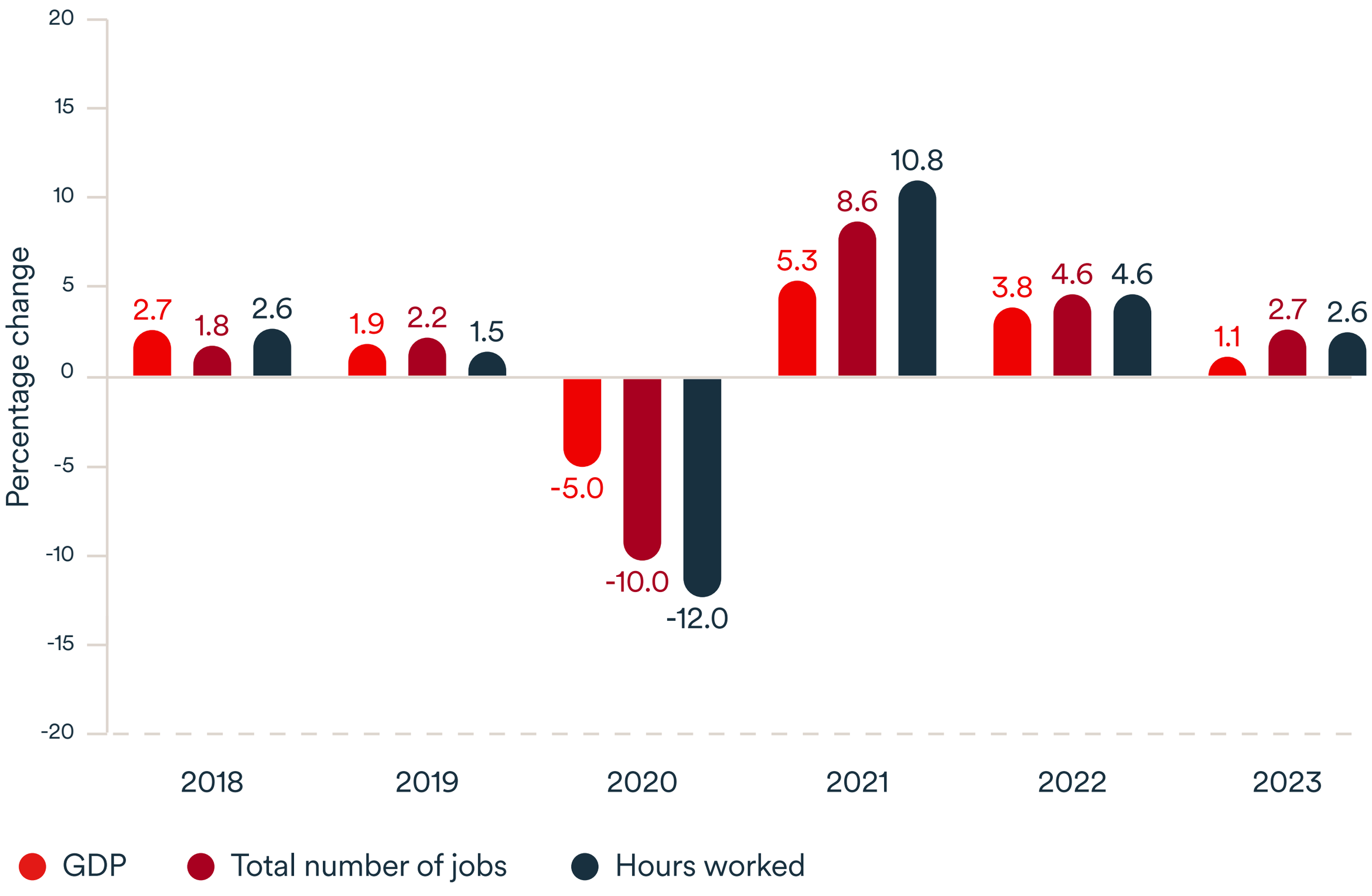
An unsustainable situation

In the post-pandemic period, from 2021 to 2023, employment and total hours worked grew faster than GDP.

During the same period, labour costs[4] increased faster than labour productivity. This is unsustainable in the long run. To be able to pay higher wages without raising prices, companies need to produce more per hour worked. In other words, they need to increase their productivity at the same rate, at least. Otherwise, the situation leads to inflation.

While the inflation that we have been experiencing over the past three years can broadly be explained by strong demand in the context of constrained supply, the fall in productivity combined with the rise in labour costs and other inputs is also fuelling inflation.[5]

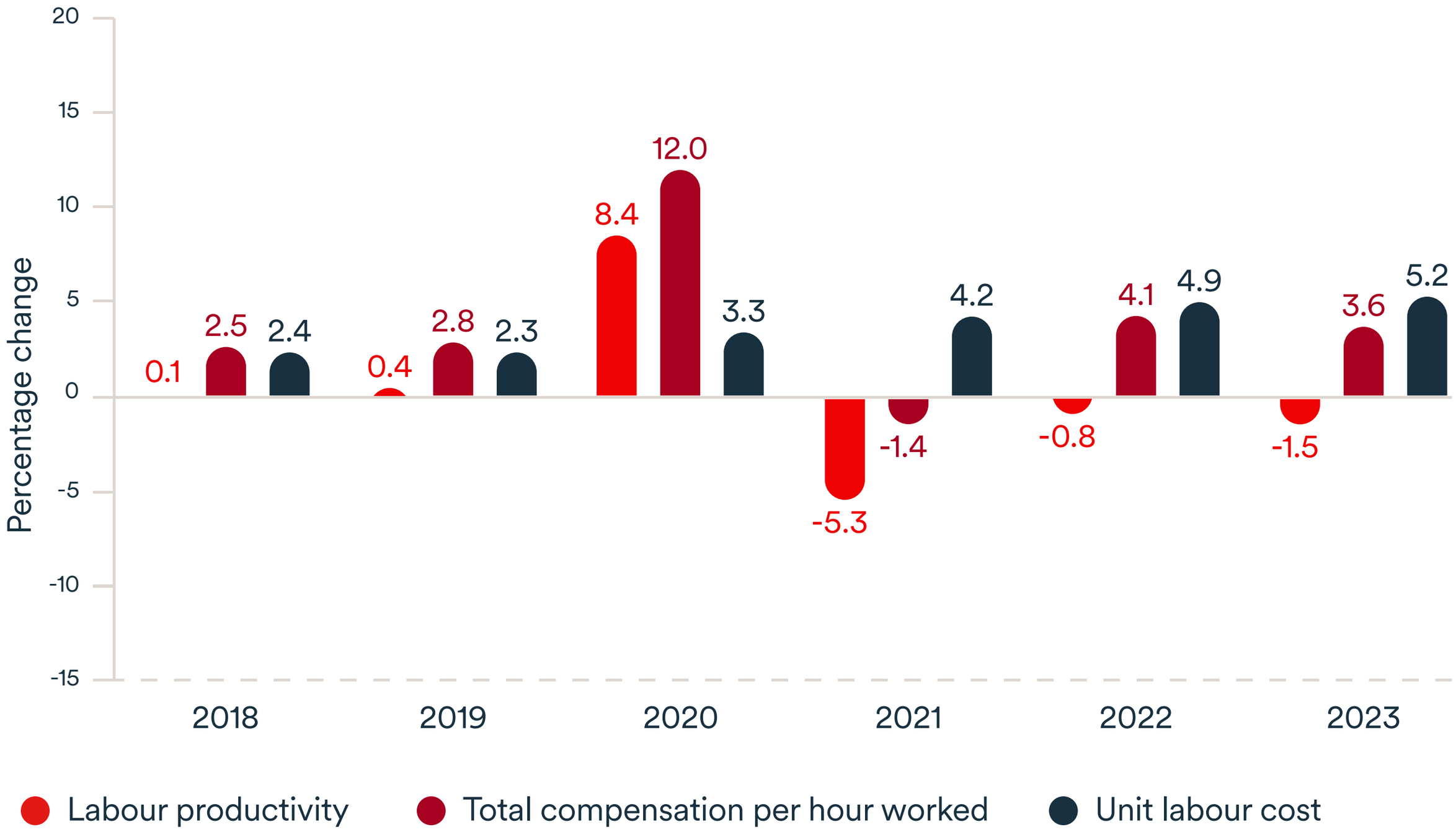
Figure 5: Growth in GDP, employment and hours worked, 2018–23



Source: Statistics Canada, Table 36-10-0207-01.

4. Labour costs are defined by these two indicators: total compensation per hour worked (that is, total compensation for all jobs divided by the total number of hours worked) and unit labour cost (that is, the cost of labour input required to produce one unit of output).
5. Carolyn Rogers, remarks, *Time to break the glass: Fixing Canada's productivity problem* (Bank of Canada, March 26, 2024).

Figure 6: Growth in total labour productivity, compensation and labour costs, 2018–23



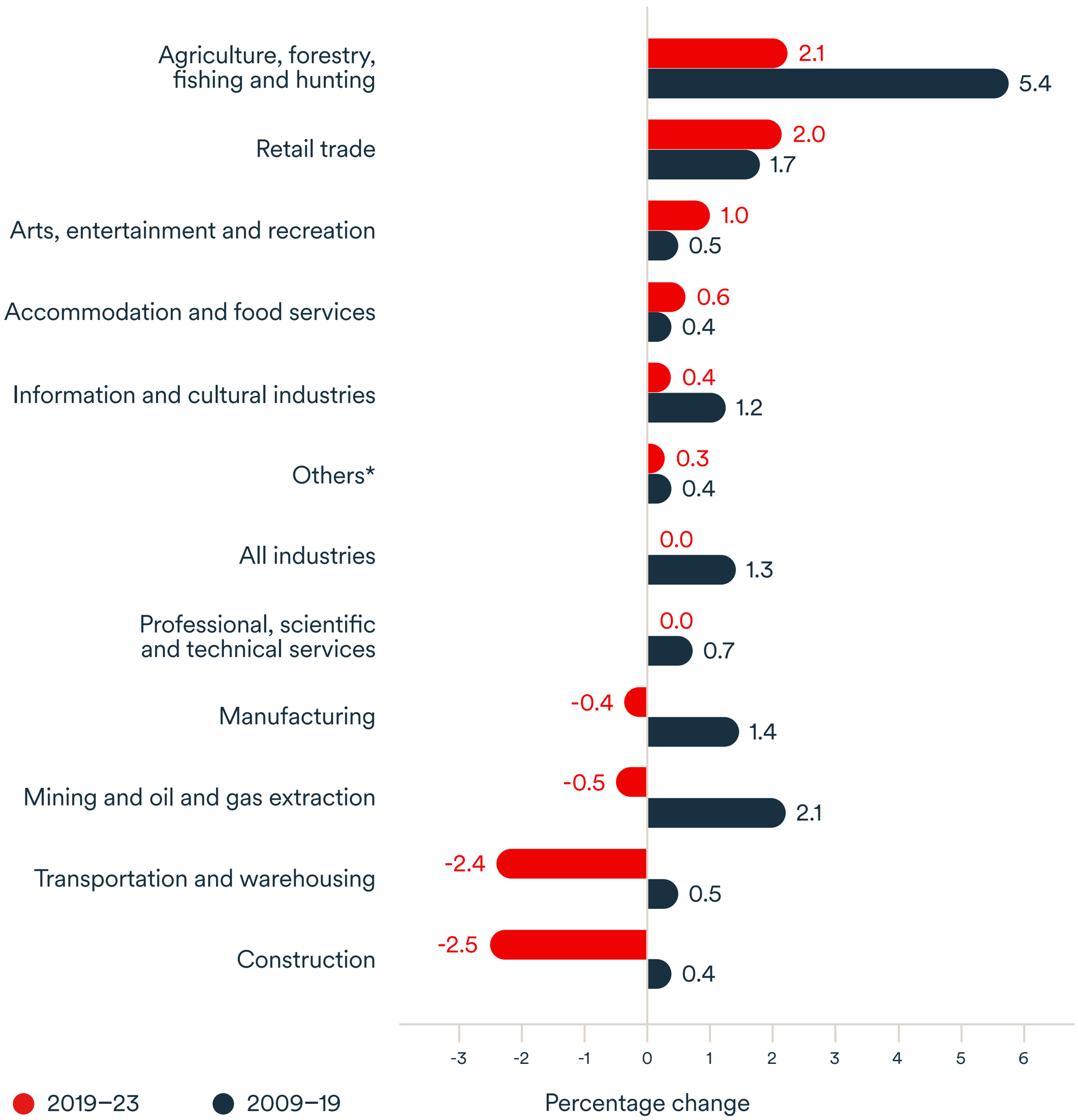
Source: Statistics Canada, Table 36-10-0207-01. Labour productivity growth calculated with this index covers the whole economy and differs from growth calculated on the basis of real GDP per hour worked, which only covers hours worked in the private sector.

Productivity growth dropped in most industries

Since the pandemic, businesses in the agriculture, forestry, fishing and hunting industries have had the highest average annual productivity growth (2.1%) of all sectors in Canada. This figure is much higher than productivity growth of all sectors during the same period (0%).

On the other hand, construction experienced the largest decline of all sectors (-2.5%) during the post-pandemic period.

Figure 7: Average annual labour productivity growth by industry, 2009–19 and 2019–23



Source: Statistics Canada, Tables 36-10-0480-01.

* The ‘’Others’’ category is a weighted average of the following sectors: administration, waste management and remediation services; finance and insurance; other services; real estate, rental and leasing; utilities; and wholesale trade.

How does Canada compare with other countries?

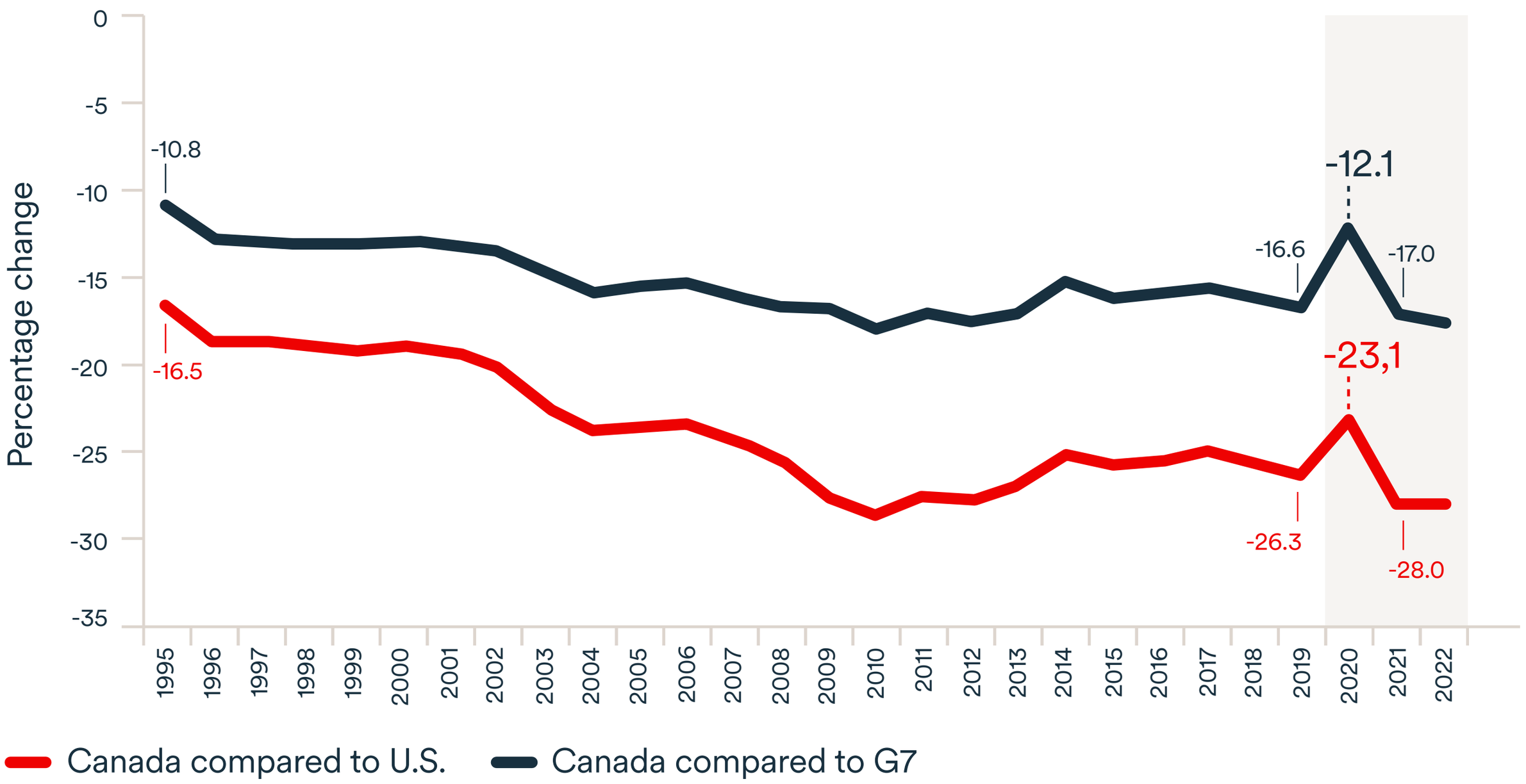
The labour productivity gaps between Canada and the U.S., and between Canada and the G7 average, have widened since the pandemic.

In 2022, Canadian labour productivity was 28% lower than in the U.S. and 18% lower than the G7 average.

These gaps have increased by 2 percentage points and 1 percentage point, respectively, compared to pre-pandemic levels (2019).

Since wage growth goes hand in hand with productivity growth, a continuation of this trend could result in Canadians becoming poorer.[6]

Figure 8: Labour productivity gap between Canada and the U.S., and between Canada and the G7, by purchasing power parity (constant 2015 prices), 1995–2022



Source: OECD and BDC calculations. Calculated from data on real GDP per hour worked, in U.S. dollars.

6. Real GDP per capita has declined over the last two years. Weaker labour productivity growth is one of the factors explaining that decline. Carter McCormarck and Guy Gellaty, *Research to Insights: Perspectives on growth, inflation, and affordability* (Ottawa: Statistics Canada, November 16, 2023).

Why is Canada lagging?

Canada has low levels of capital investment

In 2022, the level of capital investment by Canadian companies was only 41% that of American companies, compared with 44% in 2019 and 85% 10 years earlier.

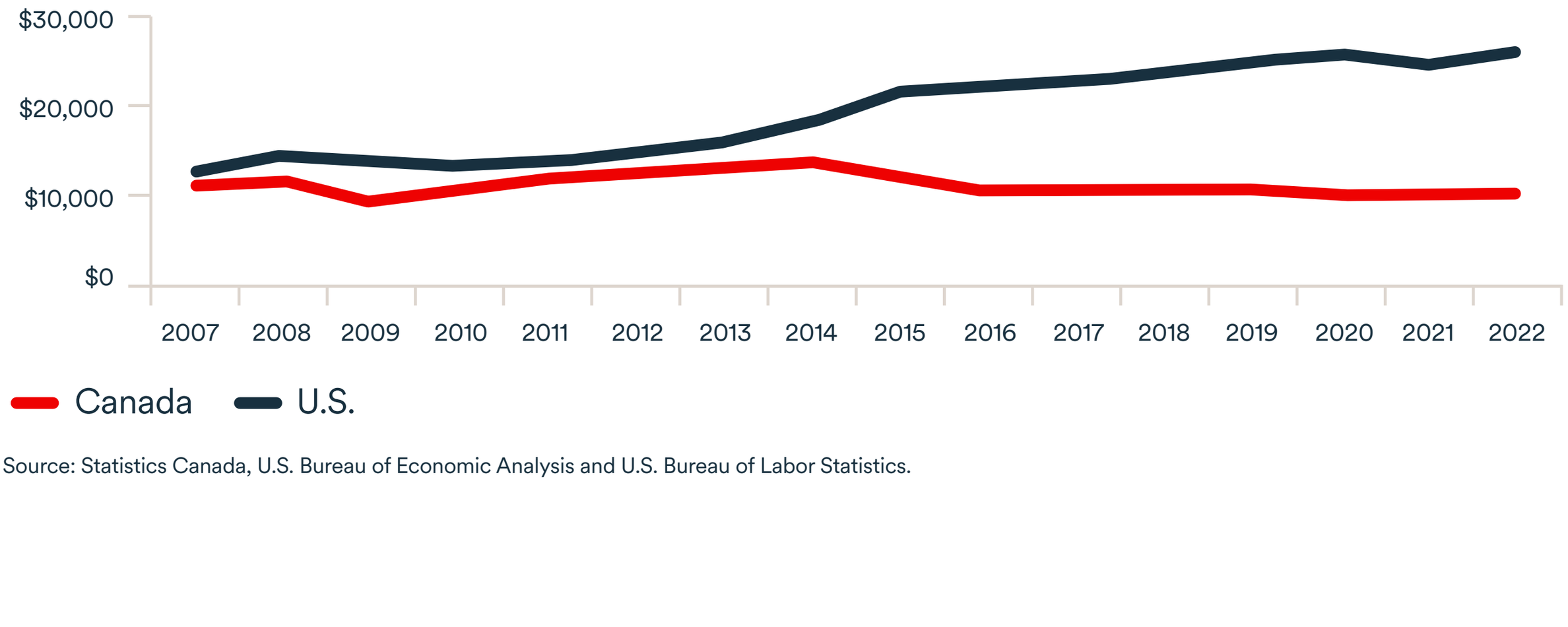
On average, U.S. companies made capital investments worth C$25,744 per worker, compared with just C$10,455 per worker in Canada in 2022.

A key explanation for the decline in Canadian investment is the sharp drop in oil prices in 2014, which led to a significant decline in investment in this sector, as well as in related industries, such as manufacturing.

Since then, Canada's fixed capital investment per worker has been virtually flat.

According to Statistics Canada, investment per employee in Canadian firms declined by 20% between 2006 and 2021. This decline in investment was more pronounced for large and medium-sized firms than for small firms. Large and medium-sized firms accounted for 90% of the total decline in investment per worker from 2006 to 2021, much larger than their share of investment (65% in 2021).[7]

Figure 9: Business capital investment per worker in Canada and the U.S., chained 2017 Canadian dollars, 2007–22



Source: Statistics Canada, U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics.

7. Wulong Gu, *Investment Slowdown in Canada After the Mid-2000s: The Role of Competition and Intangibles* (Ottawa: Statistics Canada, 2024).

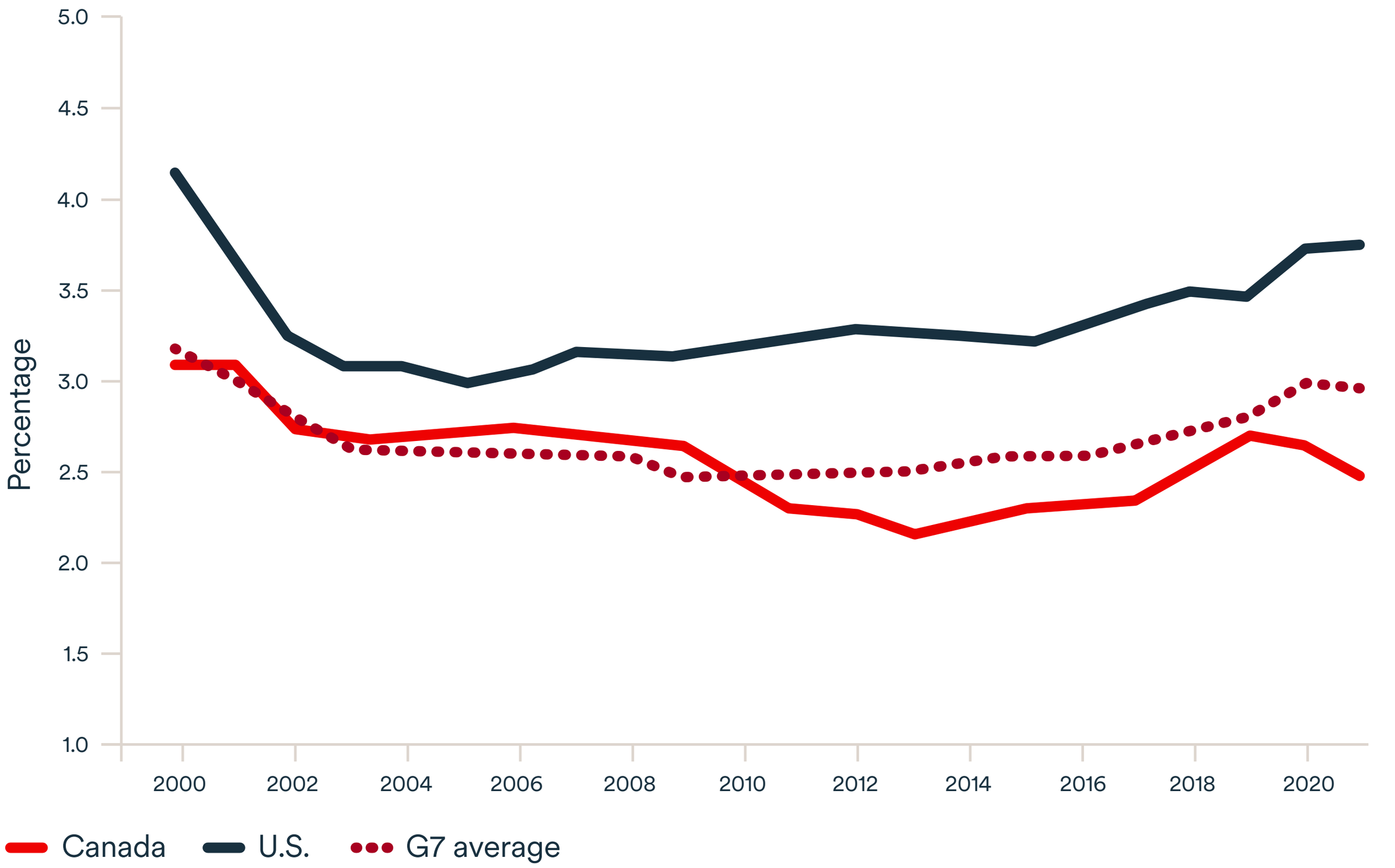
ICT investments have not picked up

Since the mid-1990s, ICT hardware, software, online platform data use and AI by businesses has been an important source of labour productivity. Investment in this field has actually been declining in Canada relative to the size of our economy, putting us increasingly behind other developed economies.

In 2021, the latest comparable year available, total ICT investment represented 2.5% of Canadian GDP, compared to 3.7% in the U.S. and 2.8% on average for G7 countries.

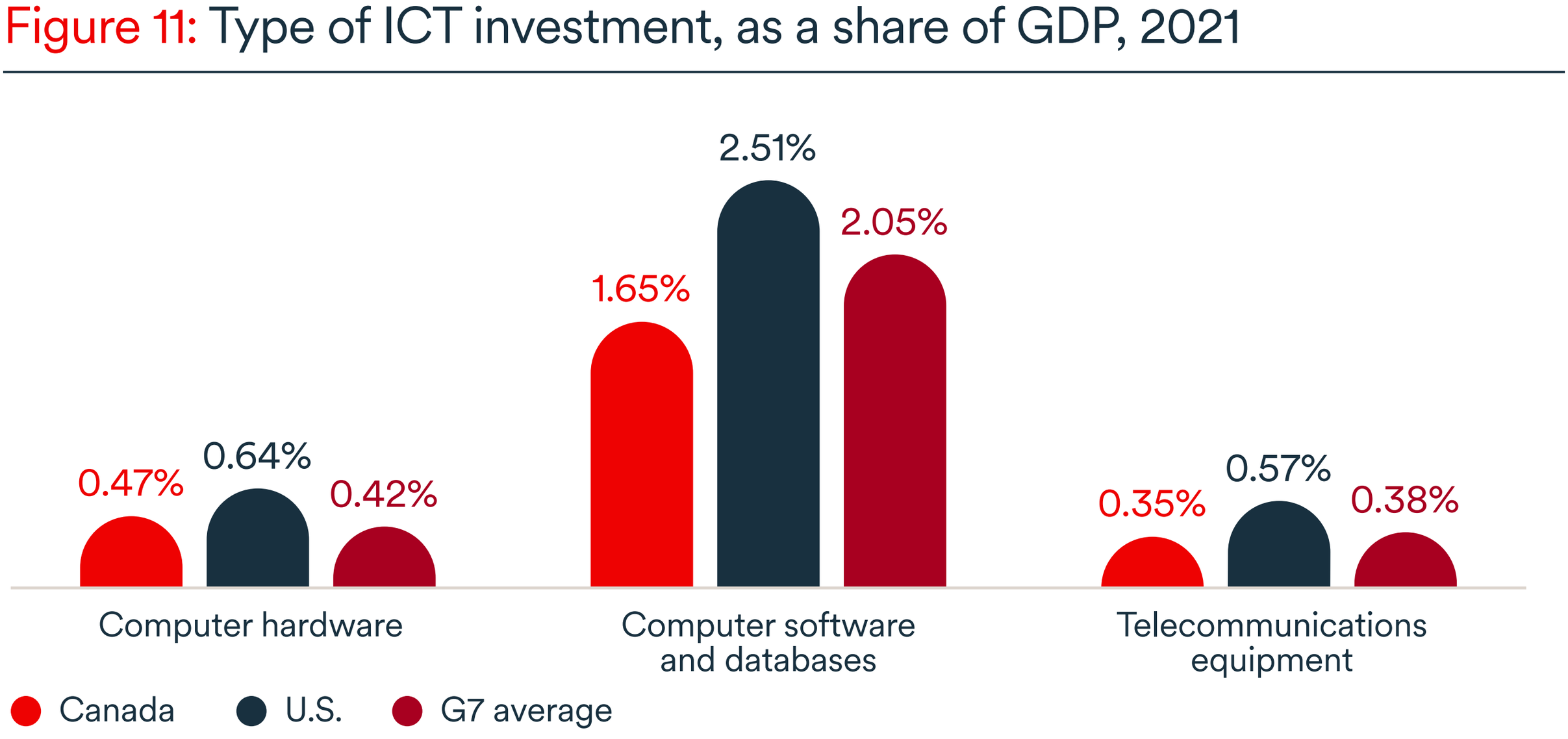
The type of ICT investment also varies, with Canada investing more in software and databases than hardware or telecommunications equipment.

Figure 10: Total ICT investment, as a share of GDP, 2000-2021



Source: Organisation for Economic Co-operation and Development (OECD).

Figure 11: Type of ICT investment, as a share of GDP, 2021



Source: OECD.

Intangible investments are also lower in Canada

Intangible assets, such as intellectual property assets and brand equity, have long been recognized as important sources of productivity growth. They are crucial for business success and growth.

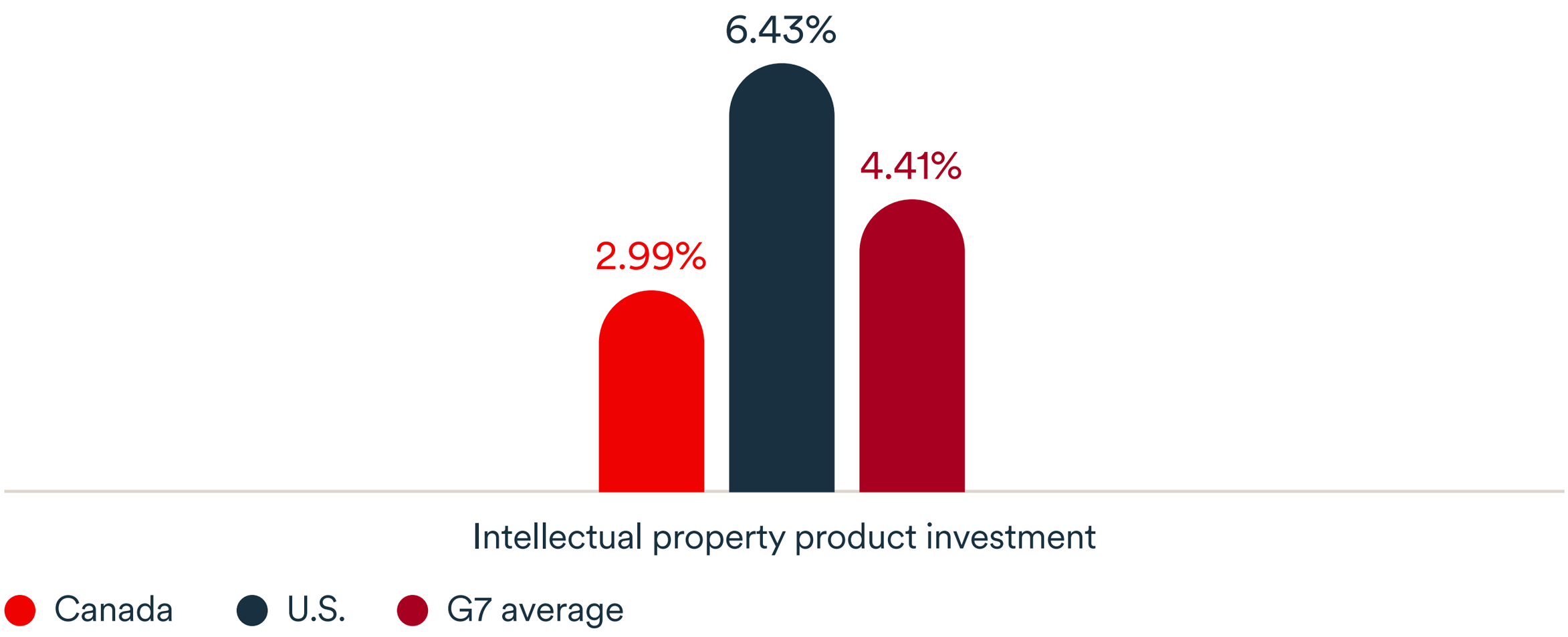
According to Statistics Canada, a shift in spending toward intangible assets partially contributed to the weakness in capital investment. The share of intangible assets as a percentage of total fixed assets on companies' balance sheets increased from 8% in 2006 to 17% in 2021.[8]

Despite the rising importance of intangibles in advanced economies, they are often unrecognized as investments in the aggregate statistics of national statistical agencies or recorded as assets and investments in income statements and balance sheets.

It is possible that properly capturing intangible investment and adding it to investment in tangible assets could show Canadian business investment to be less weak than what is indicated by current measurements.[9]

However, from what we can observe based on available data, Canada does not perform well when it comes to intangible investment. For example, Canada's investment in intellectual property products, as a share of GDP, is well below that of the U.S. and the G7 average.

Figure 12: Intellectual property product investment, as a share of GDP, 2021



Source: OECD.

8. Wulong Gu, *Investment Slowdown in Canada After the Mid-2000s: The Role of Competition and Intangibles* (Ottawa: Statistics Canada, February 2024).
9. Ibid.

Spending on R&D and innovation is trending down

The decline of research and development (R&D) and innovation after the pandemic has also contributed to the recent drop in productivity. In the 2020–22 period, the share of Canadian companies that introduced product or business process innovations fell to 72%, compared to 80% in the 2017–19 period.

Interestingly, businesses that leveraged government support for innovation over the 2020–22 period had a higher innovation rate (83%) than those that did not draw on such support (66%). The pandemic, lack of skills, and uncertainty and risk were the top three reported barriers to innovation.

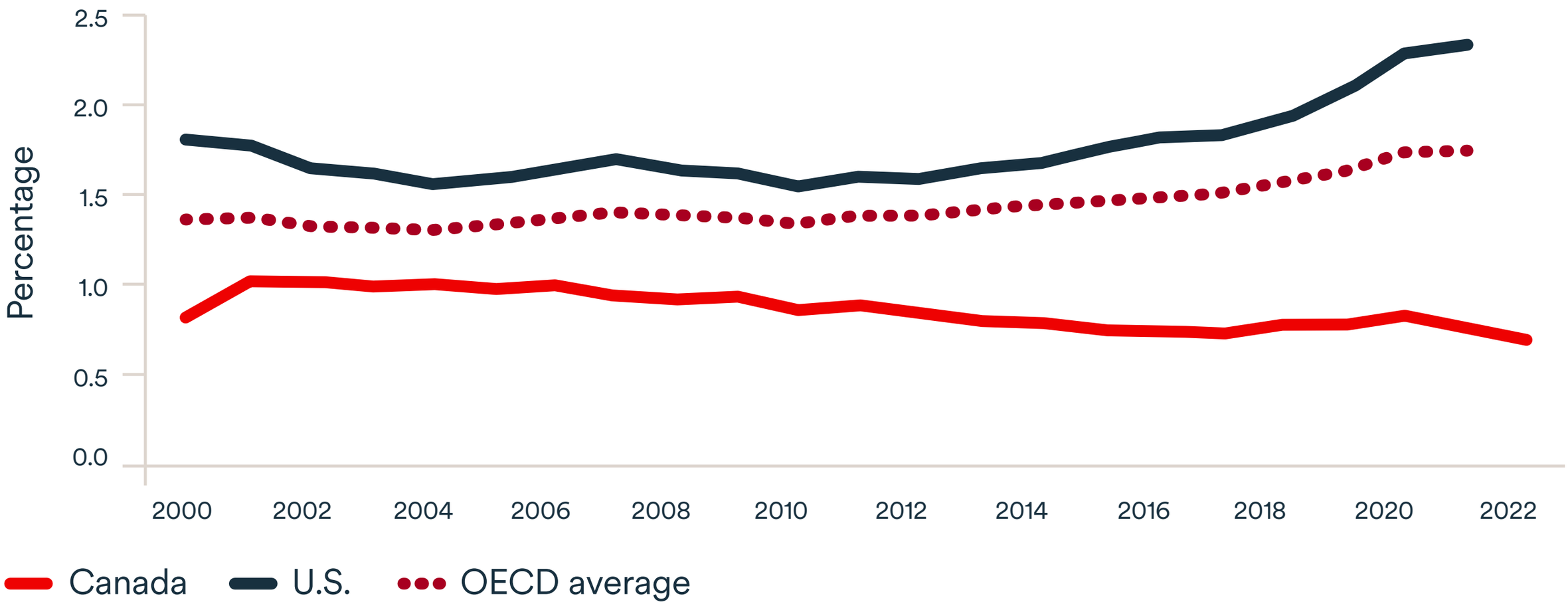
Figure 13: Share of businesses that innovated, by industry, 2017–19 and 2020–22

Source: Statistics Canada, Survey of Innovation and Business Strategy, 2020–22 and 2017–19.

Investment in R&D is also a key driver of productivity. Canadian companies spend significantly less on R&D than their counterparts in other countries do, and the gap has widened over the past decade.

In 2021, Canadian companies spent 0.75% of GDP on R&D, compared to 2.35% in the U.S. and 1.76%, on average, among OECD countries.

Figure 14: Business spending on R&D, as a share of GDP, 2000–22



Source: OECD.

The declining productivity of Canadian SMEs

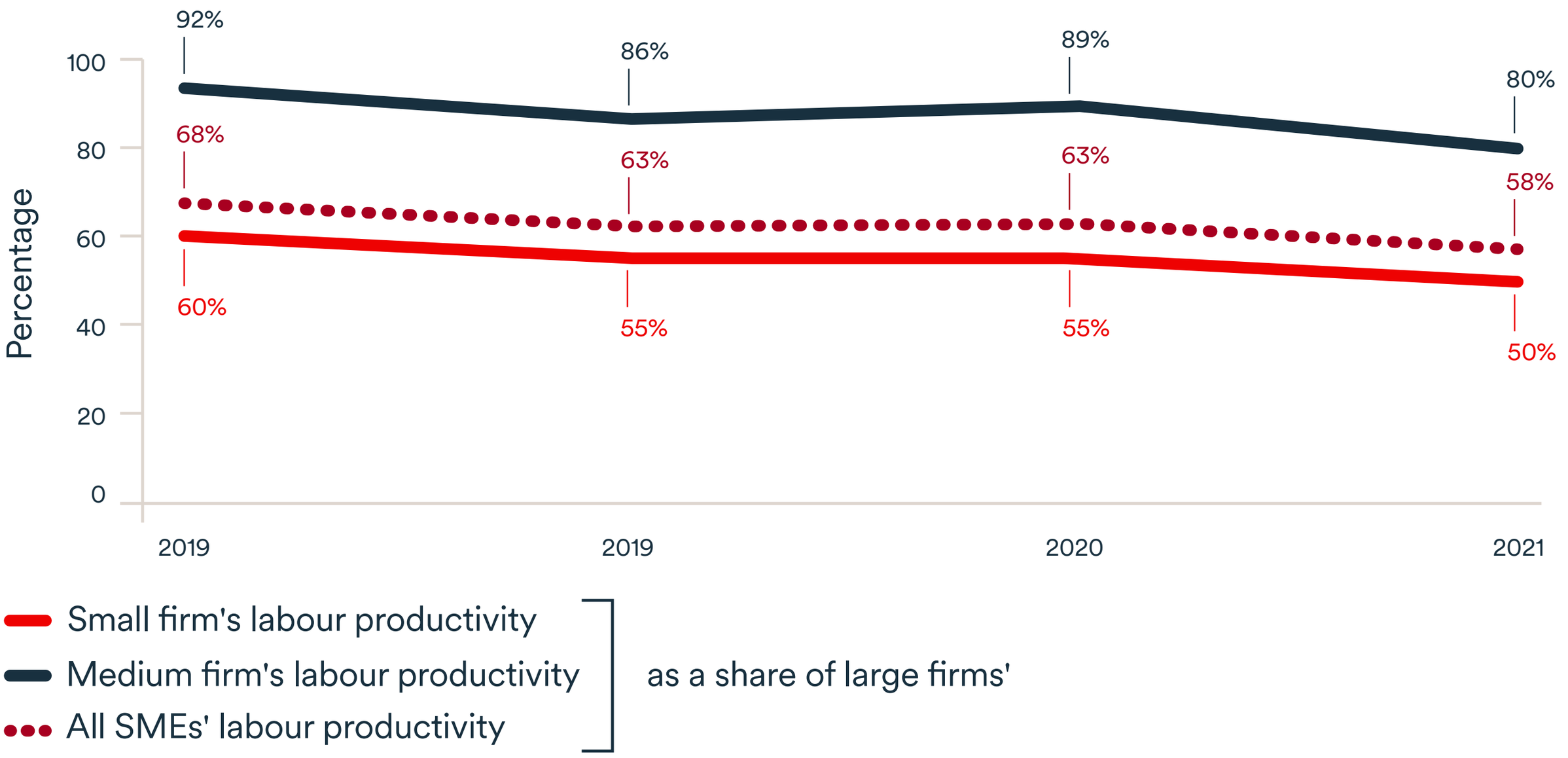
In 2021, the productivity of Canadian SMEs was 58% that of large firms, down from 63% in 2019.

This gap between SMEs and large firms, combined with the fact that SMEs account for a larger share of employment here than in the U.S., partially explains the productivity gap between the two countries.

In Canada, both small firms (fewer than 100 employees) and medium-sized firms (100 to 499 employees) reported a decline in productivity compared to large firms.

This suggests that larger companies were better able to weather this period of economic turbulence, while smaller companies were more affected.

Figure 15: Labour productivity of SMEs as a share of large firms', Canada, 2018–21



Source: Statistics Canada, special tabulation.

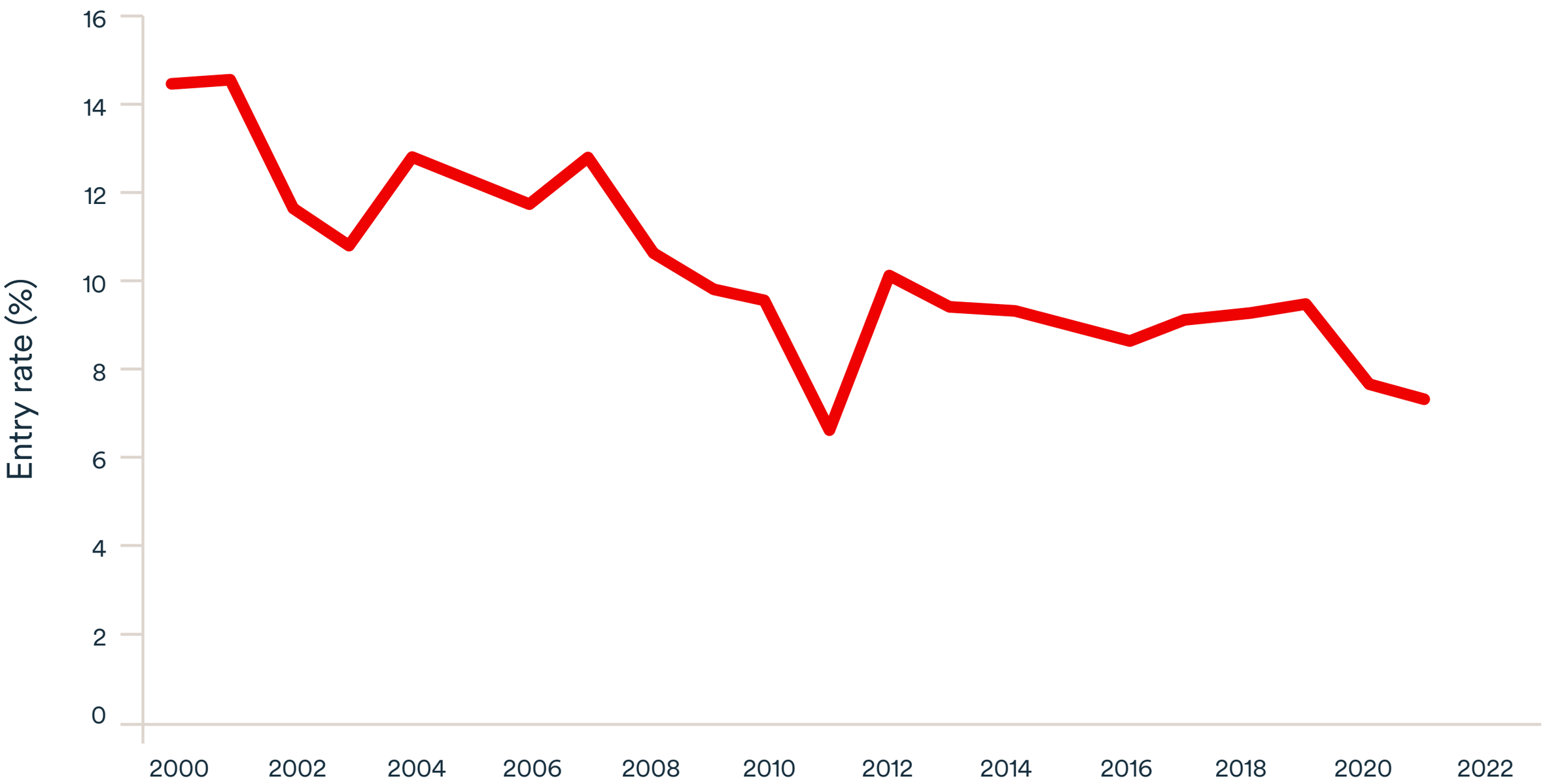
Lower business entry rate has had a knock-on effect on competition

The average entry rate—or the number of new companies founded in a year, as a percentage of all companies—declined from 12% in 2006 to 10% in 2019.

It continued to decline at a faster rate in the first two years of the pandemic, falling to 8% in 2020 and 7% in 2021.

Fewer new firms means less competition, which contributes to lower investment and productivity.[10]

Figure 16: Canadian business entry rate, 2000–21



Source: Wulong Gu, *Investment Slowdown in Canada After the Mid-2000s: The Role of Competition and Intangibles* (Ottawa: Statistics Canada, February 2024).

10. Ibid.

Sectoral productivity trends

The performance of key sectors in which SMEs are concentrated is generally poor. In Canada, around 30% of SMEs are concentrated in two industries:

	Professional, scientific and technical services
	Construction

These two sectors have experienced zero or negative productivity growth since the pandemic. Productivity in transportation and warehousing and in manufacturing also declined. Retail trade and accommodation and food services, two sectors which were among the most affected by the pandemic, showed improvements. See the following pages for an explanation of these results and productivity solutions tailored to SMEs in six sectors.

Figure 17: Average annual productivity growth of sectors with the largest SME concentration, 2019–23

	Share of Canadian SMEs operating in this sector	Average annual productivity growth (2019–23)
Professional, scientific and technical services	14.7%	0.0%
Construction sector	14.5%	-2.5%
Retail trade	13.3%	2.0%
Accommodation and food services	7.7%	0.6%
Transportation and warehousing	7.0%	-2.4%
Manufacturing sector	4.8%	-0.4%

Source: Statistics Canada, BDC calculations. Share of SMEs includes private sector only.

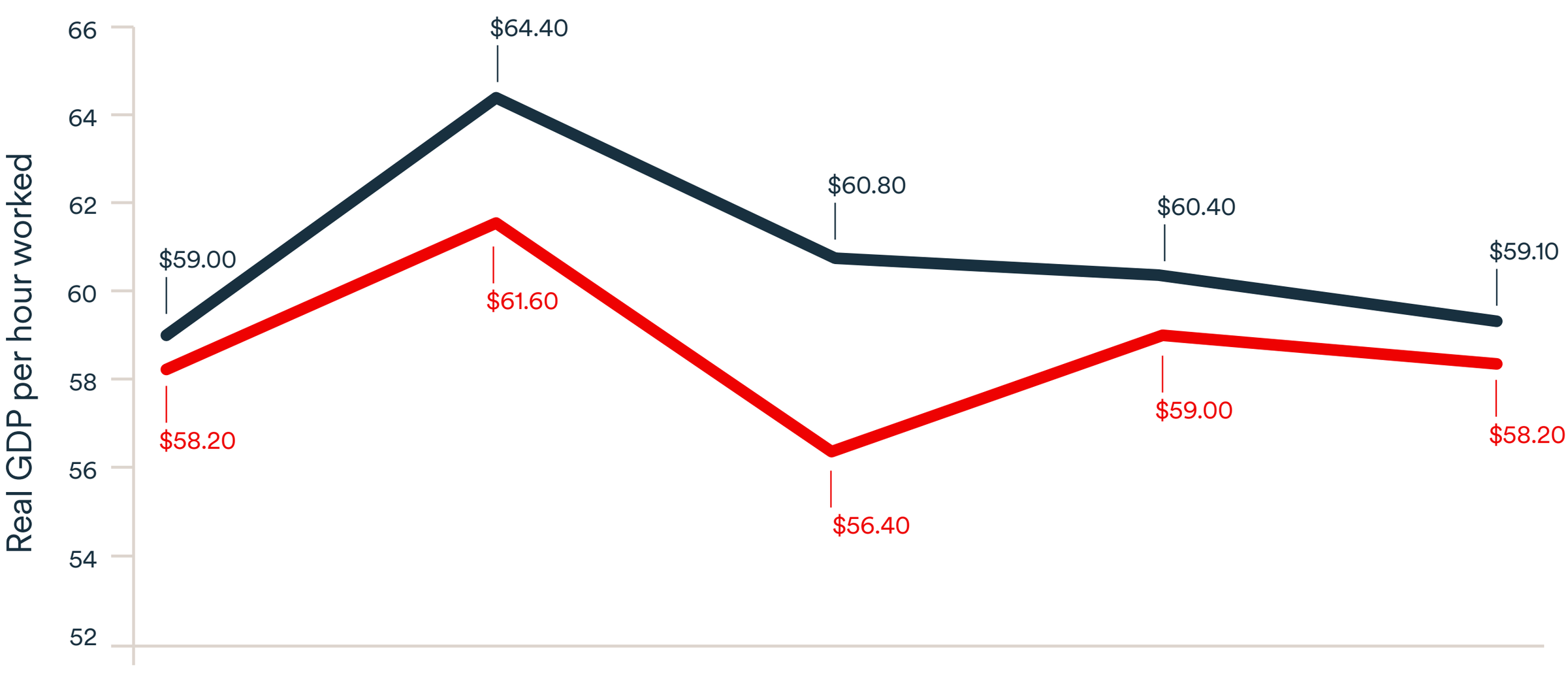
Professional, scientific and technical services

Key productivity facts

Average annual labour productivity growth in the professional, scientific and technical services sector has not increased over the last four years, which is equal to the productivity growth of all sectors for the period. In 2023, Canadian firms in this sector generated $58.20 of real GDP per hour worked, similar to the average for all firms.

- The proportion of companies in the professional, scientific and technical services sector innovating by introducing a new product or business process has fallen from 89% in 2017–19 to 78% in 2020–22. This has a negative impact on productivity.
- Machinery and equipment expenditures per worker in this sector increased at an average annual rate of 5.5% from 2019 to 2023, reaching $1,666 per worker in 2023. Despite this growth, lower capital intensity in professional, scientific and technical services is one of the factors explaining the lower productivity.

Figure 18: Labour productivity in the professional, scientific and technical services sector, 2019–23



Source: Statistics Canada, Tables 36-10-0480-01.

How to improve productivity

Professional, scientific and technical services

1. Identify opportunities and areas for improvement

Analyze internal data such as sales, customer information, financial ratios and productivity indicators as well as external data including market trends, demand forecasts and competition.

2. Embrace automation as much as possible

With solutions such as:

- Task management, quoting and proposal, budget and time-tracking software to improve service delivery and customer engagement
- Customer relationship management or supplier relationship management systems
- Accounting and billing software
- Artificial intelligence (AI)-based solutions to automate routine tasks
- Contract and execution management software
- IT solutions for project and budget management

3. Focus on high-priority tasks

- Identify the most important tasks, establish a clear timeline to stay on track, and delegate or eliminate tasks that do not add value.
- Minimize distractions, stick to deadlines and avoid unnecessary meetings.

4. Train your employees and management

- Stay on the cutting edge of technology.
- Encourage adoption of and familiarity with AI developments.

5. Track progress

And constantly measure productivity to identify areas for improvement.

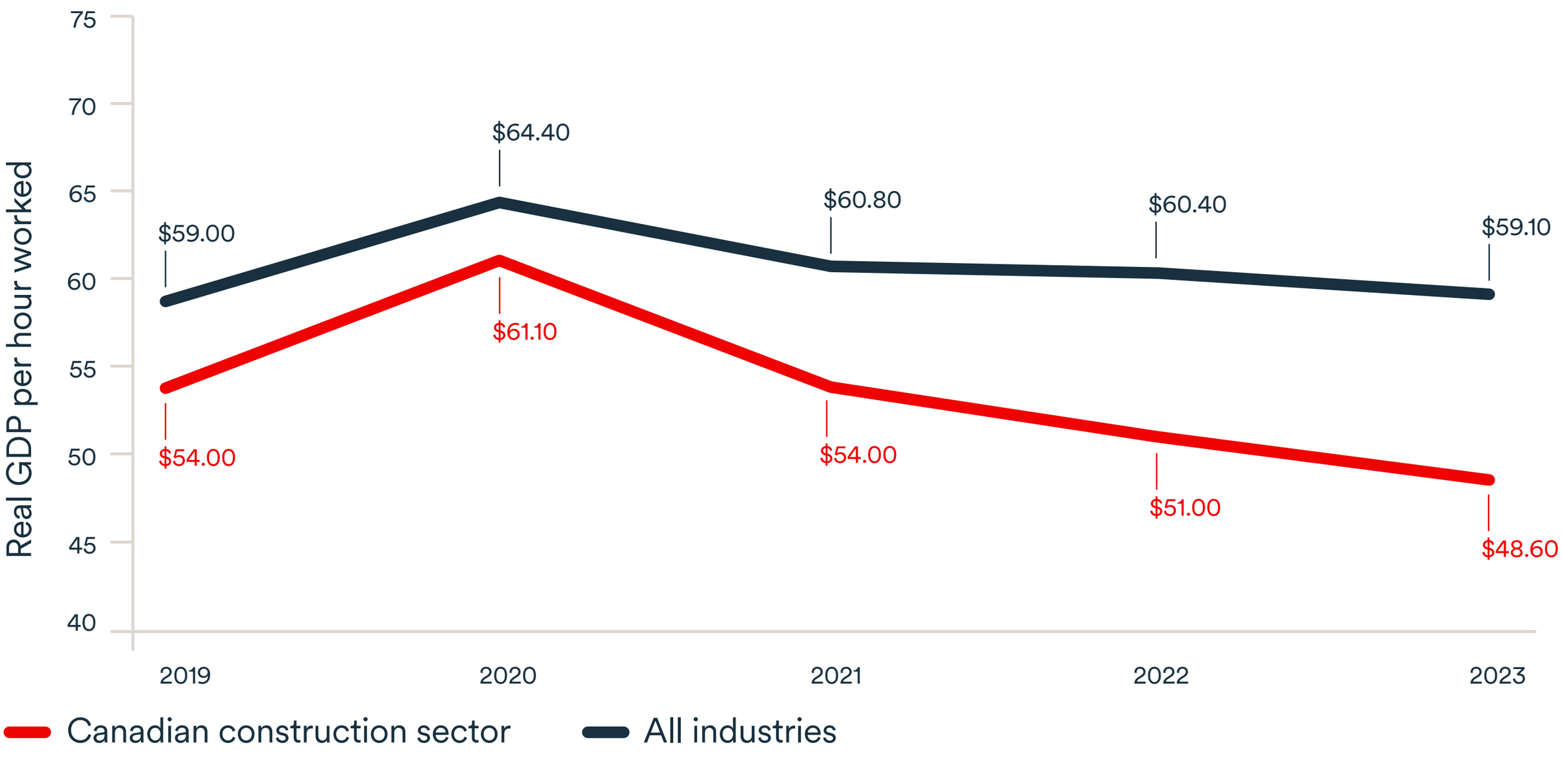
Construction sector

Key productivity facts

Average annual labour productivity growth in the construction sector has fallen by 2.5% over the last four years. This performance is below the 0% productivity growth of all sectors for the same period. Hours worked grew much faster than output. Both the impact of capital investment on labour productivity growth and skill upgrading were lower in construction than in other business services.

- Canadian construction firms generated $48.60 real GDP per hour worked in 2023, compared to an average of $59.10 for all businesses.
- The proportion of construction companies innovating by introducing a new product or business process has fallen from 76% in 2017–19 to 74% in 2020–22.

Figure 19: Labour productivity in the construction sector, 2019–23



Source: Statistics Canada, Tables 36-10-0480-01.

How to improve productivity

Construction sector

1. Improve planning and execution

- Optimize project planning and scheduling to reduce delays.
- Enhance procurement processes to ensure timely availability.
- Develop project-based accounting.
- Train workers and managers to boost skills and efficiency.
- Consider AI-based tools to streamline design and planning.
- Conduct post-project analyses to identify areas for improvement.

2. Implement automation technology and robotics

- Integrate automation tools—such as conveyors, and automated storage and retrieval systems— for repetitive tasks, such as data entry and materials handling.
- Use robotics to reduce manual labour and improve accuracy.
- Use drones for site inspections and monitoring.

3. Consider off-site fabrication

- Fabricating modular homes and building components off site enables a greater use of automation and robotics, as well as process optimization.

Construction TJL

Improving productivity to achieve controlled growth

Having time to seek out more ambitious contracts: that's the dream of Jessy and Tommy Labbé, co-founders of T.J.L. Construction Inc. Although both work very hard on their business launched in 2011, it's been challenging to achieve in recent years.

"My brother and I used to manage everything. We doubled our sales every year. But the company was growing and becoming more complex to manage".

Tommy Labbé, co-owner, T.J.L. Construction

"The problem was that if we were on the job sites, the office was less efficient, and if we were in the office, the job sites were less efficient. We were always taking on more responsibilities, but we were maxed out," explains Tommy.

Knowing that they couldn't be everywhere at once, the two entrepreneurs started hiring. “We found ourselves with a big team, but we were poorly structured," Jessy recalls. "Our profit margin had halved. Something had to change. We had to ensure business could continue, even if we weren't always there."

The two entrepreneurs, who now employ more than 200 people and have sales in the tens of millions of dollars, are not trained managers. They left their native Beauce region to install drywall in Montreal when they were 17 and 19 years old. Five years later, they founded their company, taking pleasure in constantly pushing the limits to make it grow.

That was until they realized it was time to get help to improve their productivity, turning to BDC Advisory Services for help.

Meeting their needs through recruitment

T.J.L. Construction's first task was to evaluate its workforce. "We had to describe our vision of things and how we wanted them to evolve," says Jessy.

Tommy and Jessy soon realized that the skills needed to take their business in the direction they wanted were not aligned with what the existing team had to offer. They had to act fast. "In the first six months of our reorganization, we changed 75% of our office staff," says Jessy.

They then invested a great deal of effort in recruitment—with the help of headhunters—and in staff coaching.

Investing in digitization

Having assembled the right team, the business had to make a digital shift to improve its productivity. "We used to do everything on paper," says Tommy. "We wanted estimates to be completed online and for our data to be accessible from the job site to the office and vice versa."

To achieve its objectives, the company needed an enterprise resource planning (ERP) system. "But before we could do that, we had to complete a number of steps, such as making job descriptions and mapping the company's processes from initial customer contact right through to site delivery. We also needed to be able to rely on a stable, well-trained team. It took us longer than we thought it would."

The two entrepreneurs are now preparing to implement the ERP system. But already, information is flowing better within the company. "We are getting our key employees involved in running the business," says Jessy.

"They receive the results 15 days after the end of our month, so they know what's going well and not so well on the sites. We hold meetings to discuss this so they can adjust accordingly."

Once the ERP system is up and running, the company wants data to be available on a weekly basis.

"Our staff really got on board with the project to set up an ERP system," says Tommy.

"All the administration now runs in a linear fashion, which helps us operate better on the job sites. Most importantly, I see that the sense of belonging has returned to the company."

Achieving a return on investment

The reorganization of T.J.L. Construction began in 2022. The owners had to invest in advisory services, recruitment services, and in software and implementation. "You have to be prepared to invest," says Tommy. "But when you believe in it and really put your mind to it, you soon see results."

By 2023, T.J.L. Construction had regained the profit margin it had in 2020, when Tommy and Jessy were running the business alone. "We did it," says Jessy.

The two brothers believe they will finally have the time to keep growing their business. "We have several projects in mind, and we want to keep growing," says Jessy.

"Soon, our company will be running with the stability and productivity we need to invest fully in what we want for the future. We're dreaming big for T.J.L. Construction."

Jessy Labbé, co-owner,
T.J.L. Construction

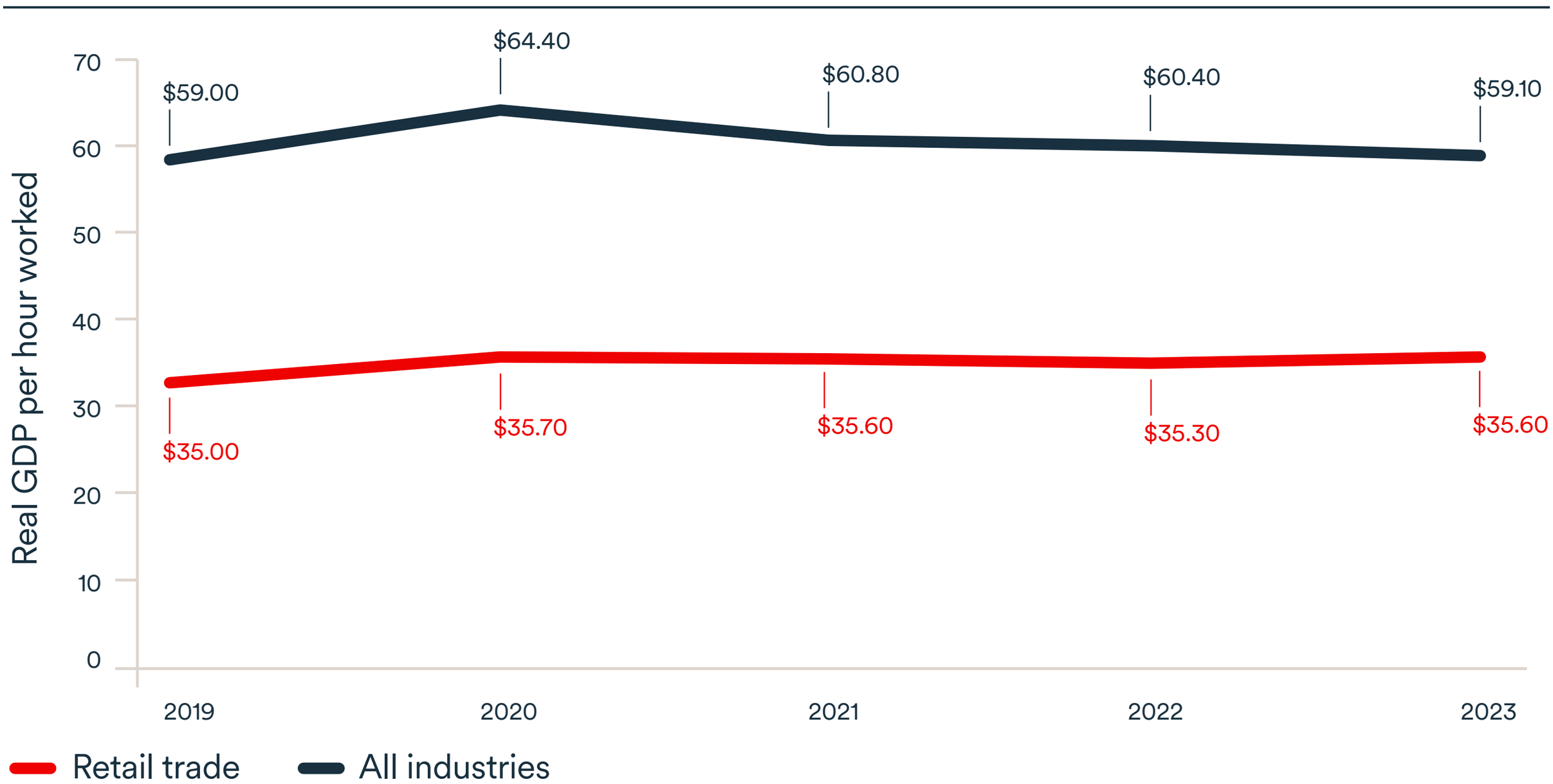
Retail trade

Key productivity facts

Average annual labour productivity growth in retail has improved by 2.0% over the last four years, compared to 0% for all companies. The efficiency with which inputs are used in the retail trade sector is higher than in other sectors, due to the integration of more ICT. As a result, the real GDP generated by the sector grew faster than the number of hours worked.

- Canadian retailers generated $35.60 of real GDP per hour worked in 2023, below the average of $59.10 for all businesses.
- The proportion of retailers innovating by introducing a new product or business process has fallen from 79% in 2017–19 to 71% in 2020–22. This has a negative impact on productivity.
- There has been an increase of 2.3% in investment in machinery and equipment by Canadian wholesalers and retailers since the pandemic (from 2019 to 2023).

Figure 20: Labour productivity in the retail trade sector, 2019–23



Source: Statistics Canada, Tables 36-10-0480-01.

How to improve productivity

Retail trade

1. Automate processes to reduce manual effort

- Develop online sales processes.
- Use digital tools to track attendance and adjust employee schedules according to traffic flow; also track employee hours with time and attendance software.
- Invest in retail management systems, inventory management tools and point-of-sale systems.
- Use supply chain technology to automate orders with suppliers, improve logistics and optimize delivery routes.

2. Optimize store layout

- Ensure store layout allows for easy navigation, efficient replenishment and minimal congestion.

3. Avoid excess inventory or out-of-stock items

- Stock products that match customer preferences and demand.

4. Optimize employee scheduling and communication

- Optimize employee schedules based on workload, peak hours and individual availability.
- Ensure effective teamwork and communication using messaging applications to keep everyone on the same page.
- Clearly define roles and responsibilities, and train your employees.

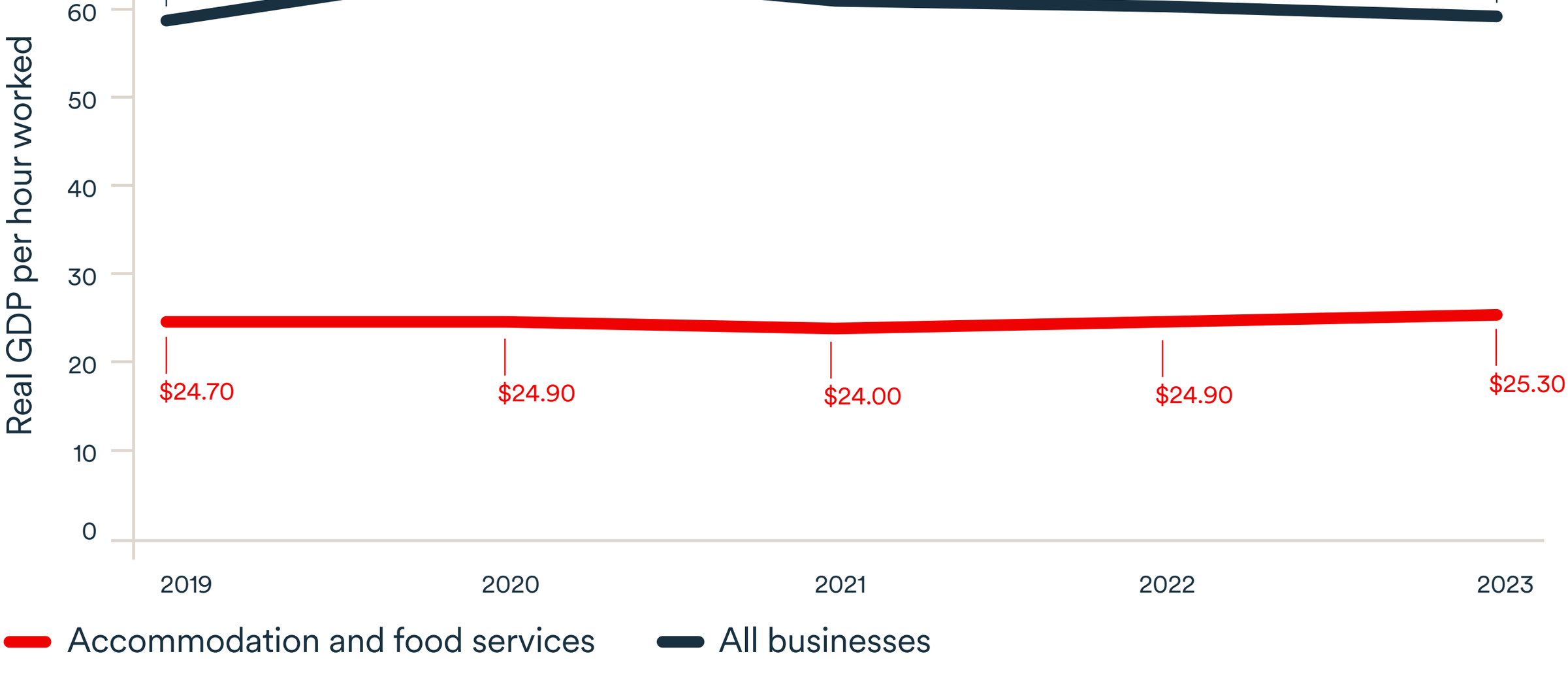
Accommodation and food services

Key productivity facts

The average annual labour productivity growth in the accommodation and food services sector improved by 0.6% over the last four years, compared to 0% for all companies. Part of the explanation is the integration of more information and communication technologies.

- Canadian accommodation and food services companies generated on average $25.30 of real GDP per hour worked in 2023, significantly below the average of $59.10 for all businesses.
- Since the pandemic, there has been a 4.3% decrease in investment in machinery and equipment by Canadian firms operating in the accommodation and food services sector (from 2019 to 2023). This sector was among those hardest hit by pandemic containment measures.

Figure 21: Labour productivity in the accommodation and food services sector, 2019–23



Source: Statistics Canada, Tables 36-10-0480-01.

How to improve productivity

Accommodation and food services

1. Implement technology

- Solutions such as point-of-sale systems, inventory management software, staff scheduling software and online booking platforms can streamline operations, reduce manual labour and improve the customer experience.

2. Optimize inventory and menus

- Work closely with suppliers to avoid overstocking, and negotiate favourable terms to reduce costs and improve margins.
- Review menus to identify best-selling items and underperforming dishes.

3. Improve the customer experience

- Encourage repeat business and positive social media reviews.
- Also consider loyalty programs.

4. Standardize processes

- Ensure consistency and reduce errors.
- Provide clear guidelines for tasks such as food preparation, cleaning and guest check-in/check-out.

5. Implement energy-saving practices

- LED lighting, energy-efficient appliances and smart thermostats can reduce utility costs.

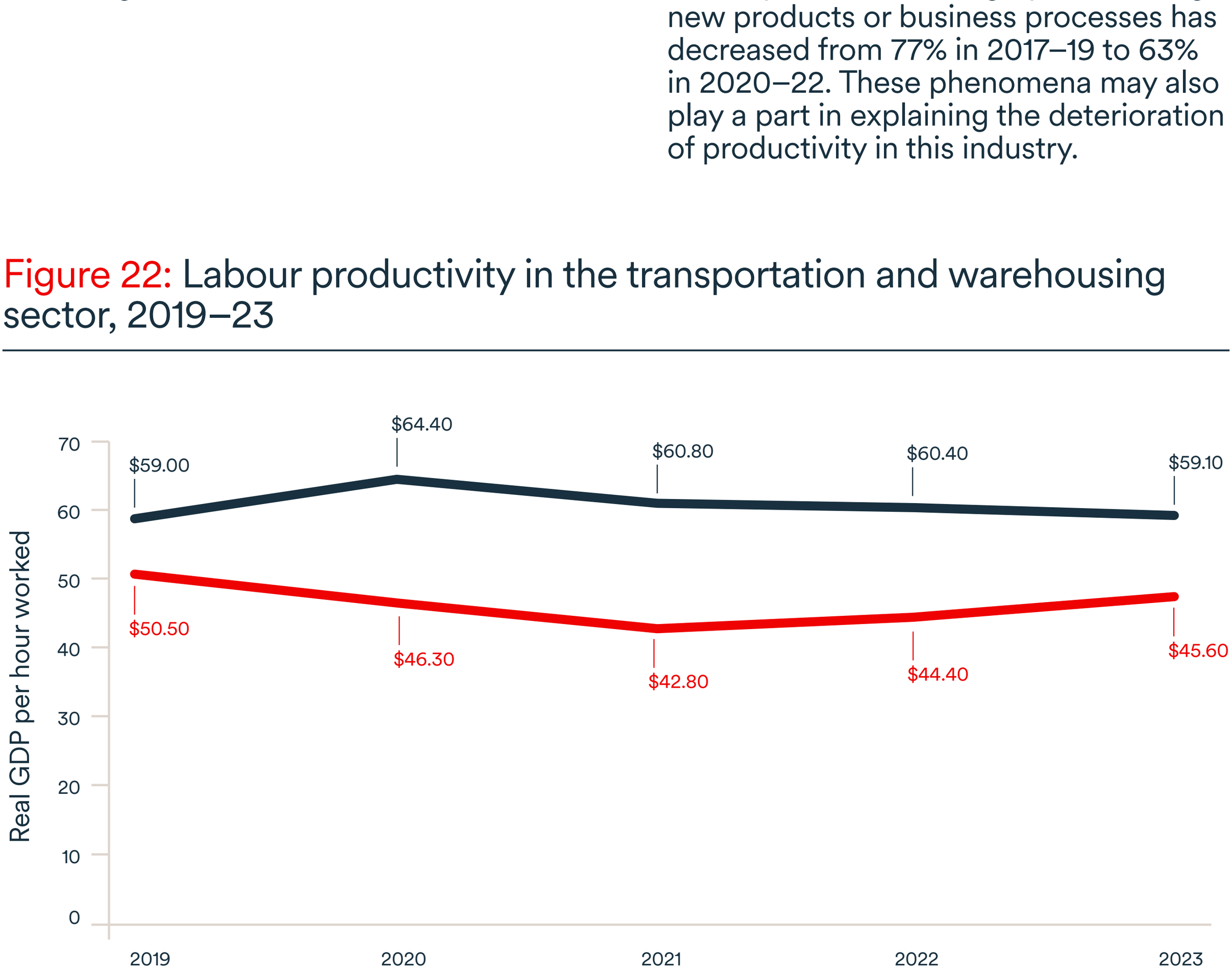
Transportation and warehousing

Key productivity facts

Average annual labour productivity growth in the transportation and warehousing sector decreased by 2.4% over the last four years, in comparison to 0% for all businesses. Supply-chain disruptions, extreme weather events, strikes, labour shortages, and loading and unloading delays are among the issues that have affected productivity in the sector.[12]

- Canadian companies in this sector generated $45.60 of real GDP per hour worked in 2023, below the average of $59.10 for all businesses.
- Investment per employee in machinery and equipment has decreased by 1.2% since the pandemic. Similarly, the share of companies innovating by introducing new products or business processes has decreased from 77% in 2017–19 to 63% in 2020–22. These phenomena may also play a part in explaining the deterioration of productivity in this industry.

Figure 22: Labour productivity in the transportation and warehousing sector, 2019–23



Source: Statistics Canada, Tables 36-10-0480-01.

12. Cynthia Leach, "Stronger, faster, smarter: The transportation strategy Canada needs to win post-IRA" (RBC, July 25, 2023).

How to improve productivity

Transportation and warehousing

1. Automate with technology

- Use transportation management systems to help streamline operations, optimize routes and enhance visibility on business processes.
- Use performance analysis tools to optimize operations and minimize operating costs.

2. Optimize fleet utilization

- Group deliveries in the same area to maximize efficiency.
- Train drivers and staff on safety, compliance and efficient practices.

3. Improve finance and accounting

- Understand and control costs to offer competitive pricing.
- Set up unit accounting, which tracks each projet separately.

Warehousing

1. Optimize pick-and-pack routes

- Efficiently plan routes for picking and packing orders.
- Minimize travel time within the warehouse to improve overall productivity.

2. Maximize vertical space

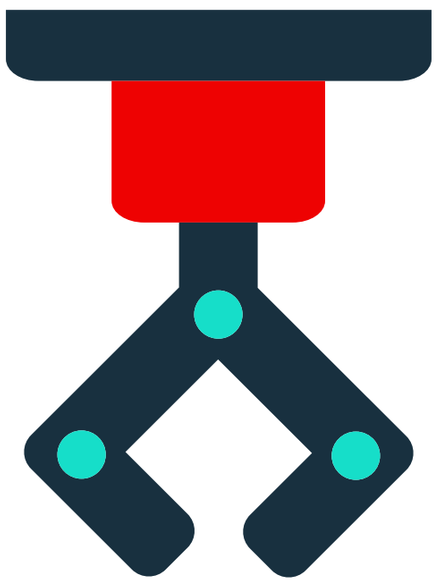
- Utilize existing vertical space rather than expanding horizontally.
- Compress shelf levels and narrow aisles to create more storage capacity.
- Fight for air rights to make the most of available space.

3. Invest in automation and robotics solutions

- Use autonomous mobile robots (AMRs), equipped with 360-degree sensors and 3D cameras, to transport a wide range of materials.

4. Prioritize safety and training

- Maintain a safe working environment to prevent accidents and downtime.
- Cross-train employees so they can adapt to changing demands and cover for absent team members.



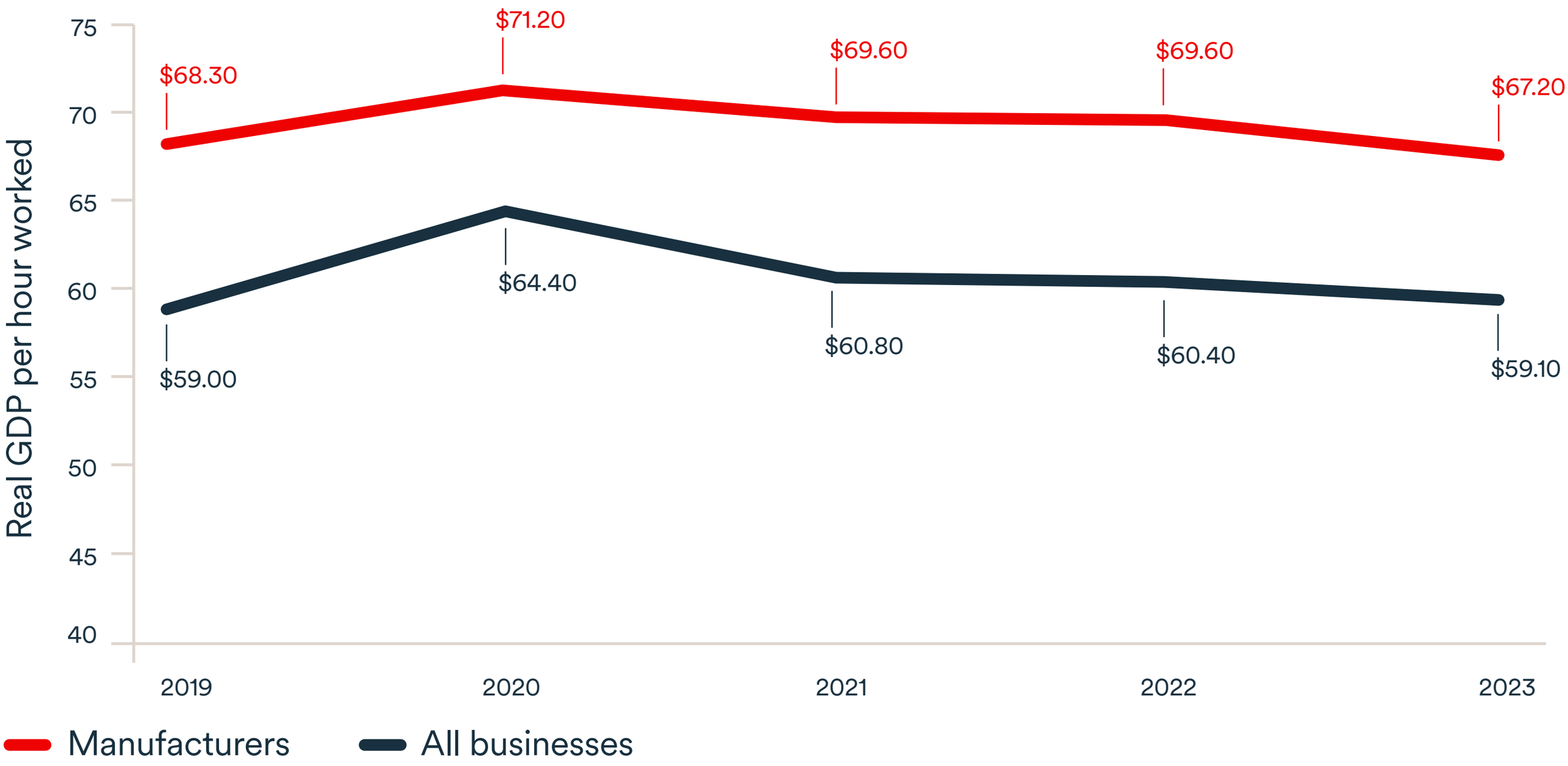
Manufacturing sector

Key productivity facts

Average annual labour productivity growth in manufacturing decreased by 0.4% over the last four years, compared to a 0% increase for all companies. This decline is due to low efficiency in the use of production inputs, weak capital productivity and limited skill upgrading.

- Canadian manufacturers generated $67.20 of real GDP per hour worked in 2023, above the average of $59.10 for all businesses.
- The proportion of manufacturers innovating by introducing a new product or business process has fallen from 82% in 2017–19 to 72% in 2020–22. This has a negative impact on productivity.

Figure 23: Labour productivity in the manufacturing sector, 2019–23



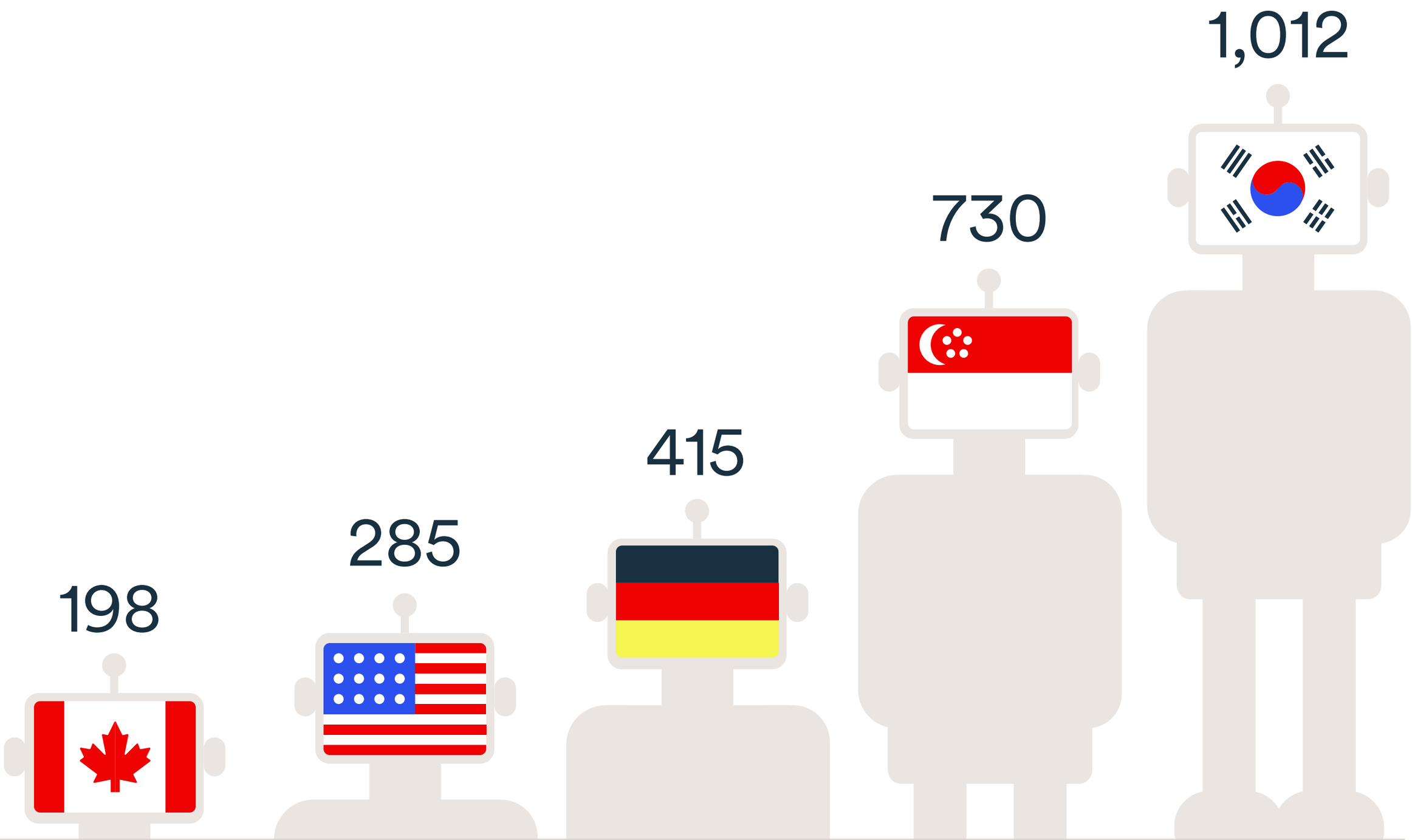
Source: Statistics Canada, Tables 36-10-0480-01.

What is also worrisome is that there has been a slowdown in investment in machinery and equipment by Canadian manufacturers since the pandemic. Average annual investment increased by 4% from 2019 to 2023, down from 9% per year in the previous decade (2009 to 2019).

In addition, only 8.8% of Canadian manufacturers were using robotics in 2022. Manufacturers in the machinery sub-sector are the most likely to use robotics, at 14.4%, while those in the beverage and tobacco sub-sector are the least likely, at 3.6%.[13]

Compared to other countries, Canadian manufacturers do not rank high in the use of robots.

Figure 24: Robots per 10,000 employees in the manufacturing sector, Canada and selected countries, 2022



Source: International Federation of Robotics, Global Robotics Race: Korea, Singapore and Germany in the Lead, January 10, 2022. https://ifr.org/ifr-press-releases/news/global-robotics-race-korea-singapore-and-germany-in-the-lead.

13. Statistics Canada, Advanced Technology Survey, 2022.

How to improve productivity

Manufacturing sector

1. Review workflow and reduce waste

- Analyze production processes to identify bottlenecks, streamline workflows and eliminate unnecessary steps.
- Implement lean manufacturing practices, such as Six Sigma.
- Use external experts to improve operational efficiency.

2. Implement automation technology and robotics

- Embrace automation, digitization and robotization to enhance production speed, quality and supply-chain management.
- Implement real-time data analytics to identify improvement opportunities and plan maintenance in advance.
- Use digital tools to facilitate collaboration and information-sharing.
- Use BDC's return-on-investment automation tool to assess opportunities.

3. Upskill employees

- They can be more productive and flexible when they need to perform new and more sophisticated tasks.

E. Hofmann Plastics Inc.

Analytics, digitization and talent taking manufacturer to the next level

Paul Kalia had a vision: He wanted to build a world-class company. Fortunately, he already had the company. Kalia owns E. Hofmann Plastics Inc., a plastics manufacturing business in southern Ontario. The company produces a range of containers for customers across North America in industries ranging from food and beverage to construction and chemicals. The challenge was to reinvent it.

“We started analyzing the whole business and asking: How can we improve shipping? How can we improve production? How can we improve scheduling? And then with digitization, it just spread like wildfire.”

The company is now experiencing a dramatic surge in productivity because of shifts that began four years ago, when Kalia decided to make a significant investment in automation.

His business was profitable, but overly reliant on currency exchange for profits: With 70% of its customers in the U.S., E. Hofmann made money when the Canadian dollar was low, but lost money otherwise.

To step off that treadmill and grow, it could produce for less (by introducing efficiencies) or sell for more (by adding value). Kalia wanted to do both. He credits his sons, Sameer and Vikram, for insisting that he could accomplish both goals and boost productivity by automating and digitizing.

The first problem they set out to solve was how to store more product using less space. Doing so would mean using software to track products more closely throughout the entire manufacturing process—but the project grew as one thing led to another.

A key change was the implementation of robotics in the warehouse. These days, the company has a robot that travels on a track, lifting and placing pallets of product on an elevator that moves the pallets forward, backward, up and down on racks. The robot also digitizes the location of each product, making them easier to track and locate.

Digitizing the entire manufacturing process

The digitization and inventory management project took four years to complete and required a significant financial investment. The company spent a total of $60 million in recent years, including additional amounts spent on automation, capacity and new products. But the rewards have been huge, says Kalia.

E. Hofmann is now growing aggressively and is on pace for double-digit growth this year. Its sales doubled from 2019 to 2024, and its team of engineers and technicians is now four times bigger than a decade ago.

The warehouse automation and digitized inventory have improved quality control. For example, products can be traced back to when and how they were made. As Kalia explains, this traceability also ensures that "everybody in the front office knows what's going on in the back office," making it easier for salespeople to meet client needs.

Digitizing has made E. Hofmann more competitive in North America and given it greater flexibility to meet customers' demands.

"Now we can do just-in-time production, pull orders out, ship anywhere in North America, and schedule our machines for maximum efficiency," says Kalia. "We can produce better-quality products faster because every single piece is monitored."

Kalia is watching his business take off in all directions these days, with plans for ventures in Switzerland and the Czech Republic. The company is also more sustainable because its increased efficiency has reduced its energy use.

"Ultimately, we needed to be able to process more product per employee so we would have more money to reward our staff with."

Finding the right people—and keeping them happy

In E. Hofmann's case, automation and robotics did not eliminate jobs. Quite the opposite: It meant bringing in more expertise.

Part of building a world-class company, Kalia believes, is attracting top talent, which means paying people well. "But to do that, you need to be able to compete with the multinationals. That's why we had to get so much more efficient. Ultimately, we needed to be able to process more product per employee so we would have more money to reward staff with."

After securing financing for the digitization project, E. Hofmann hired and retained staff to run the initial analytics, determine what needed to be done, implement and oversee the new processes, and steer the company through its projected growth.

Kalia has one piece of advice for manufacturers considering digitization, and it doesn't concern budget, timing, approach or software: Recognize that although you may think you're in a product business, you're actually in a people business.

"Recruit the kinds of young leaders who may some day run other companies, and treat them well, because they are the keys to growing yours right now," he says.

"Technology makes a lot of things possible, but it is people who choose, apply and manage it. Your goal should be to find the best minds and keep them motivated."

Paul Kalia, owner,
E. Hofmann Plastics Inc.

A call to action

Companies that are more productive are more profitable and valuable. They are also more likely to grow.[14] This helps them pay higher wages without having to raise the prices of their products or services. It also helps them deal with increases in other input costs. The most productive companies invest more than others in machinery and equipment, ICT, R&D, and innovation. This makes them more attractive to workers and more resilient to economic shocks.

The recent downward trend in productivity in Canada is worrying. It is bad for business and it is fuelling inflation. Entrepreneurs who want to make their business more resilient need to take a hard look at:

- the efficiency of their operations
- their investment
- the roles and responsibilities of their people, including management

Companies should analyze their processes to identify bottlenecks, streamline workflows and eliminate unnecessary steps. They also need to exclusively focus on activities that add value for their customers. This can often be a first step toward adding new technologies that help optimize and automate certain tasks.

Business investment has been weak for some time in Canada, and higher interest rates have not helped. Fortunately, these should start to fall in the second half of 2024. Despite these economic considerations, technologies are evolving and international competitors are continuing to invest. Companies need to integrate automation, robotics and AI and to seek help in making the most of technology. To do so, they need to have an IT budget and, very often, a dedicated IT manager. This will help analyze data, set targets, prioritize projects, select and implement systems and train employees.

This report shows that the productivity of SMEs is 58% that of large firms. Large companies benefit from economies of scale and are better able to invest. Scaling up—for example, through acquisitions—could be an efficient way to increase productivity.

Finally, employees and management will always remain key assets. They need to keep up with new ways of doing things and find ways to innovate to generate more output per hour worked. They must develop and retain the skills needed to run a successful and resilient business.

14. Sylvie Ratté, *The Scale Up Challenge* (Montreal: BDC, 2016).

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