

ECONOMIC VIEWPOINT

Canada's Post-pandemic Productivity Performance May Be Worse than Thought, but It's Not Condemned to Mediocrity

By Randall Bartlett, Senior Director of Canadian Economics

Highlights

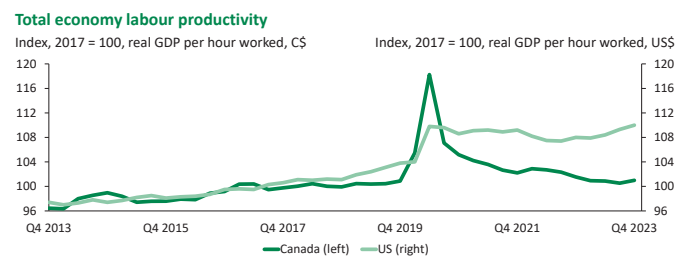
- ▶ The recent release of labour productivity data in Canada saw an end to the five-quarter slide in this key indicator of economic health. But it may not last, as total hours worked could again outpace output. Even worse, our analysis of a more apples-to-apples comparison with the US points to Canadian labour productivity having performed worse since 2019 than the oft-quoted data suggest. And if OECD forecasts prove correct, the gap with the US could get worse still. The reason: US investments in innovation over the past decade are paying off in a major way.
- ▶ However, this dystopian vision for Canada's future is not inevitable. As Budget 2024 fast approaches, the federal government would be wise to take the opportunity to refocus its plans for encouraging business investment and innovation in Canada. The ongoing erosion in productivity and living standards makes clear that what's being done now isn't working. However, a change in policy direction can't wait for more deliberation. Action is urgently needed.

With the release of labour productivity data for the final quarter of 2023, Canadians were greeted with an end to the five-quarter slide in this key indicator of economic health. And while a reprieve in the decline in real output per hour worked is welcome, it may also be brief. Even more concerning, the number many are accustomed to quoting may be overestimating the performance of Canadian productivity since the start of the pandemic, particularly relative to the US. As such, Canada's productivity problem could be worse than most believe. But it's not inevitable, and policies put forth in the 2024 budget season should look to change the trajectory of productivity in Canada and living standards along with them.

What Is Labour Productivity?

Labour productivity is measured as real GDP per hour worked. Every country measures it essentially the same way. And on this measure alone, Canada is trailing well behind the US, which has seen a resurgence in productivity recently (graph 1).

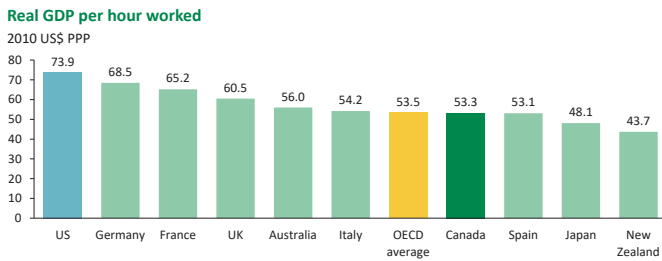
Graph 1
Canada's Labour Productivity Has Been Lagging behind the US's



Bureau of Labor Statistics, Statistics Canada and Desjardins Economic Studies

But when comparing productivity across countries, there is the added complication of accounting for the exchange rate. The Organisation for Economic Co-operation and Development (OECD) does a good job of compiling real GDP per hour worked on a comparable basis. And when looking at the G7 and other similar countries on the same basis, Canada's productivity predicament looks stark (graph 2 on page 2).

Graph 2
Productivity Is Lower in Canada than in Comparable Countries

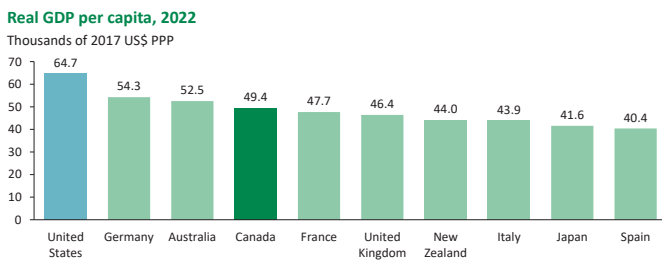


PPP: Purchasing power parity
Organisation for Economic Co-operation and Development and Desjardins Economic Studies

Countries also differ in how they measure real GDP. Real GDP is the value-added output of an economy. And whether measured on an expenditure or industry basis, the differences across countries tend to be subtle, with variations in category definitions often so minor only a statistician could love them.

The International Monetary Fund (IMF) helpfully publishes real GDP estimates that are comparable across countries, and also include adjustments for the exchange rate. When presented on a per capita basis to make the comparison easier, Canada continues to lag well behind the US (graph 3). And while Canada’s international ranking improves relative to labour productivity, surging population growth over the past year likely changed the math somewhat since 2022.

Graph 3
Canada’s Real GDP per Capita Lags Well behind the US’s



PPP: Purchasing power parity; Values for Australia and the United Kingdom are forecasts
International Monetary Fund and Development and Desjardins Economic Studies

What’s the Problem with Labour Market Data?

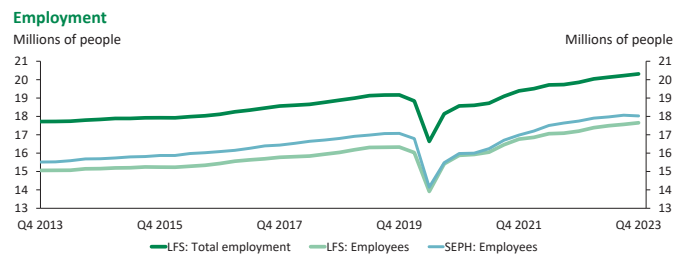
To complete the estimate of labour productivity, real GDP is divided by total hours worked. This is calculated as the product of average weekly hours worked and the number of people working. While this may sound straightforward, unfortunately it’s not.

Labour market data is collected through a few different types of surveys in most advanced economies. One is the “establishment

survey,” which asks companies what industry they are in, how many employees they have, how many hours those employees work, how much they are paid per hour, etc. Then there is the “household survey,” where households are asked these same questions, plus whether they are unemployed and why, why they’re looking for work or not, etc. Finally, there are other ad hoc surveys that ask similar questions but may take a bit of a different tack, such as asking how many hours of unpaid work at home people may engage in.

Unfortunately, labour market indicators that should be essentially the same can vary considerably when derived from these different surveys. Take employment in Canada. The establishment survey (known as the Survey of Employment, Payrolls and Hours or SEPH) accounts for employees only, whereas the household survey (known as the Labour Force Survey or LFS) includes people who are employees and self-employed. But even when just comparing the number of employees estimated in each survey (i.e., leaving aside the self-employed), the totals consistently vary (graph 4). Indeed, in the decade that preceded the COVID-19 pandemic, 3.5% more employees were measured in the SEPH than in the LFS on average—a gap that widened steadily over that period. Notably, this difference falls to 1.8% when “unclassified businesses” are excluded from the SEPH.

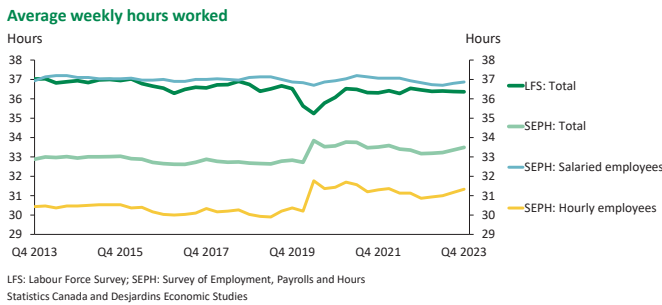
Graph 4
The SEPH Often Shows More Employees in Canada than the LFS Does



LFS: Labour Force Survey; SEPH: Survey of Employment, Payrolls and Hours
Statistics Canada and Desjardins Economic Studies

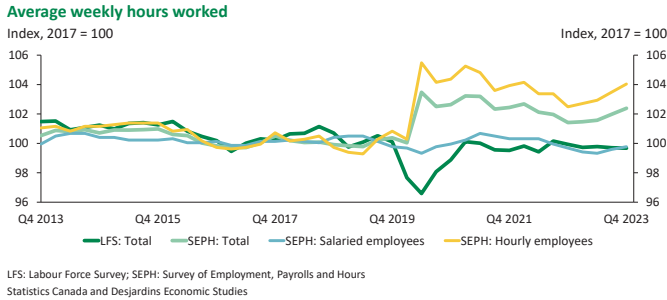
And it’s not just employment in Canada that differs across surveys. Average weekly hours worked do as well. Workers have always reported clocking more hours every week than companies have reported paying people to work (graph 5 on page 3). While this could reflect underreporting by employers or embellishment by employees, the difference is more likely due to hours worked reported by self-employed Canadians. But this too is subject to judgment and appears to significantly bias upward the average weekly hours worked in the LFS versus the SEPH. It’s no surprise then that, when combining employment and average weekly hours worked, including self-employment boosts total hours worked in the LFS versus the SEPH.

Graph 5
Average Weekly Hours Worked Differ Substantially across Surveys



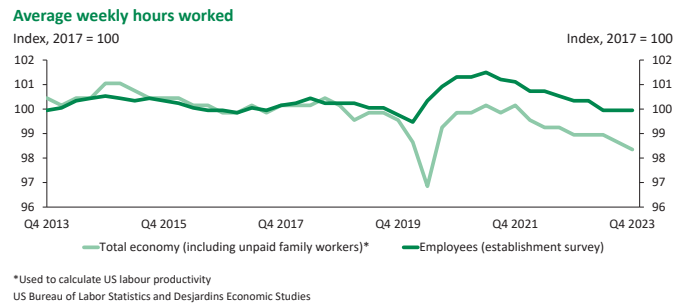
Despite this persistent difference in the number of weekly hours worked between the SEPH and LFS, these measures of labour market engagement followed a similar trend prior to the COVID-19 pandemic (graph 6). However, during the pandemic, they moved in completely different directions, largely because of the surge in average weekly hours worked by employees who are paid hourly.

Graph 6
Average Weekly Hours Worked Diverged during the Pandemic



In the US, the comparison of labour market data gets even more challenging. According to the [Bureau of Labor Statistics](#), “hours worked data for the labor productivity and cost measures include hours worked for all persons working in the sector— wage and salary workers, the self-employed and unpaid family workers.” The hours worked by unpaid family workers are not included in either the US household or establishment surveys (or the equivalent Canadian surveys). But it helps to explain the deterioration in average weekly hours worked used to calculate labour productivity south of the border (graph 7).

Graph 7
Hours Worked Used to Calculate US Productivity Have Fallen Sharply

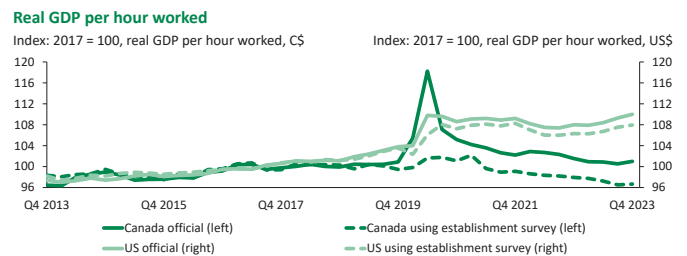


Why Does This Matter for Labour Productivity?

To try to level the playing field between measures of labour productivity across countries, we can start by using similar definitions of total hours worked. In both Canada and the US, the establishment surveys are considered to be the highest quality indicators of the labour market and are limited to employees. They are also used to calculate GDP. In these surveys, the number of total hours worked is lower than that currently used to calculate labour productivity in both countries. Consequently, the level of real GDP per hour worked is higher when using the establishment surveys, all else equal.

However, these revised estimates of labour productivity also show poorer pandemic-era performance than the official measures. By Q4 2023, labour productivity in Canada was 2.8% lower than at the end of 2019 when using the SEPH, whereas the official estimate was broadly flat over the same period (graph 8). That takes Canadian real GDP per hour worked to its lowest level since 2012. And not only has productivity fallen by more in Canada over the past four years when using the establishment survey, but it turns out the peak was never nearly as high. In contrast, labour productivity ended last year 4.3% higher in the US than in Q4 2019 when using the establishment survey, lower than the official estimate albeit by a more modest 1.7 percentage points (graph 8).

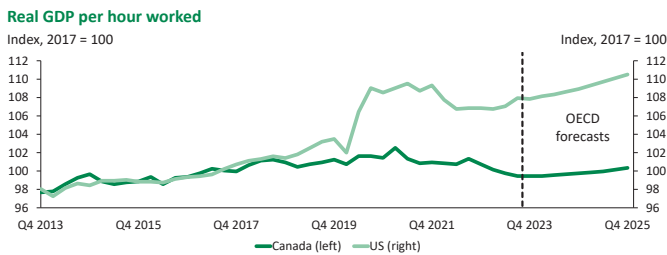
Graph 8
Canada’s Productivity Deteriorated More According to Nonfarm Payrolls



So on a more apples-to-apples basis with the US, Canadian labour productivity is likely to have performed worse than originally thought since the end of 2019. It's worth noting these revised series also track the OECD estimates more closely than the official numbers do when indexed to the same year. And if OECD's forecasts prove correct, this gap with the US could get worse still (graph 9). Our [research](#) also suggests that this solid productivity growth stateside may have some staying power.

This outperformance in information services in the US didn't happen in a vacuum. From 2015 to 2023, the US economy posted average annual growth in total real non-residential investment of 3.4%, concentrated in information processing equipment, software, and research and development (graph 11). In contrast, as we discussed [last year](#) and [again more recently](#), moribund capital expenditures in Canada since oil prices tanked in 2014 are still causing a hangover today that is weighing on productivity and living standards. Indeed, since 2014, real non-residential investment in Canada contracted by about 1% on average annually through 2023. This is in large part thanks to an average yearly decline in investment of 8.6% in mining, quarrying and oil and gas extraction. In contrast, the advance in real non-residential investment in the rest of the Canadian economy averaged around 1.2% annually over that same period—better than an annual contraction but still not much to write home about.

Graph 9
Canada's Productivity Isn't Expected to Reach Pre-COVID Levels Soon

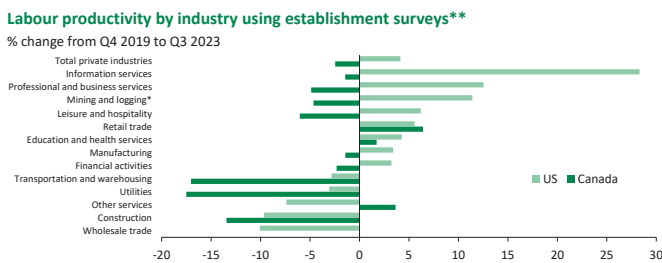


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What's Driving the US's Productivity Outperformance?

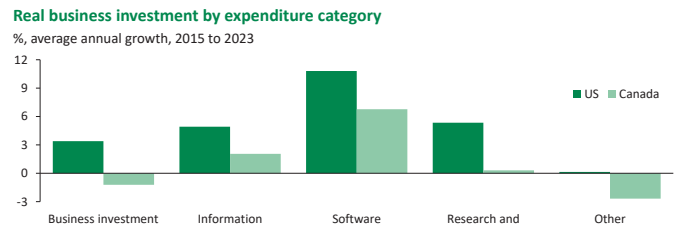
Calculating real GDP per hour worked in this manner also allows for a deeper dive into the sectors driving labour productivity in the US and Canada. Since the start of the COVID-19 pandemic, US productivity growth has been heavily tilted toward information services (graph 10), an industry that includes telecommunications and data processing, hosting and related services. But it is only one of eight sectors that made gains through the pandemic versus three relatively low-productivity sectors in Canada's case (retail trade, education and health services, and other services, e.g., housecleaning and auto repair).

Graph 10
Information Services Have Been Driving US Productivity Growth



*Real GDP for this sector includes Agriculture as this isn't broken out in US real GDP by industry
**US data includes private sector hours worked only, whereas public sector hours are included for Canada
Bureau of Economic Analysis, Bureau of Labor Statistics and Desjardins Economic Studies

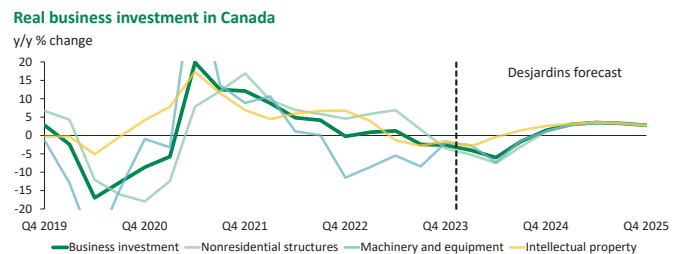
Graph 11
US Business Investment Has Been Concentrated in Innovation



*For Canada, this includes computers and computer peripheral equipment; communications and audio and video equipment; and other electrical and electronic machinery and equipment.
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As we discussed in a recent [note](#), in the near term, high interest rates, input costs and post-pandemic debt are holding back investment in Canada. Business insolvencies spiked at the start of 2024 in part as a consequence of these same factors. Add to this weak domestic demand and a lacklustre outlook for consumer spending, and it isn't a surprise that businesses are staying on the sidelines for now and likely for the foreseeable future (graph 12).

Graph 12
Business Investment Should Slow Further into Early 2024



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(See our latest [Economic and Financial Outlook](#) for more information on our latest forecast.)

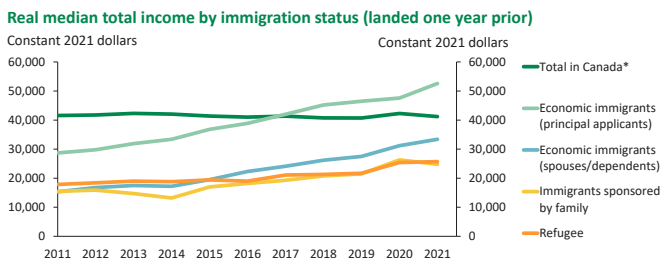
What Can Be Done to Boost Labour Productivity in Canada?

This isn't a new story. Canada's productivity problem is longstanding. But the dystopian vision for the future described earlier is not inevitable. So, what can be done about it?

To start, policymakers in Canada should follow the first rule of holes: when you're in one, stop digging. Hours worked are much higher in Canada than in the US, relatively speaking. Given the historically high number of non-permanent residents (NPRs) coming to work in Canada, short-term labour seems as though it is being used as a substitute for long-term investment. By reverting to the very modest hurdles required in the Temporary Foreign Worker Program, specifically the Labour Market Impact Assessment (LMIA), some sober second thought could be exercised in the process of newcomer admissions to Canada. The planned reduction in NPR admissions announced on March 21, 2024, is a recognition of the need to exercise some restraint in keeping the door wide open to temporary workers and students coming to Canada. That said, while our [analysis](#) suggests this should modestly boost productivity, it will also weigh on economic activity. And there is some concern the policy change may not lead to more of the entrants needed to move the needle on productivity in Canada.

If real wages are any indication, a focus on shifting a higher share of immigration toward the Economic Immigrant stream would provide a further tailwind to productivity growth in Canada as well (graph 13). Notably, Statistics Canada [found](#) that many of the most economically successful new Canadians first came to Canada as NPRs. This includes as foreign students. As such, the federal government should also be mindful not to throw the baby out with the bathwater in its recent changes to the international student program. Giving priority to graduate students was the right decision in this regard. But sustainable [funding for post-secondary education](#) in Canada must be considered too.

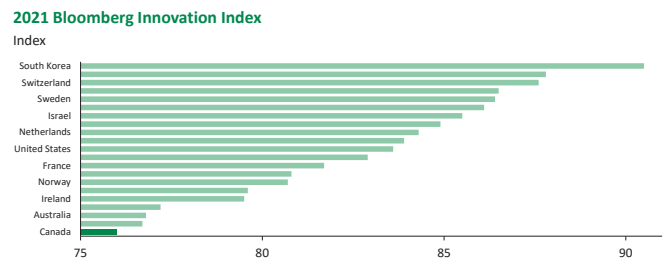
Graph 13
The Real Wages of Economic Immigrants Are High and Rising



*Adjusted for inflation using the total Consumer Price Index
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With the federal government set to close out the 2024 budget season on April 16, there is also a lot more that can be done to boost business investment and innovation. In countries that have had more success in driving innovation (graph 14), our [research](#) found that governments play an important role through establishing a regulatory and legal framework that promotes innovation; investing in human capital; encouraging researchers to have a close relationship with industry; leveraging a country's comparative advantages; and fostering a culture of risk-taking.

Graph 14
Canada Ranks behind Most Major Economies on Innovation



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In contrast, the Canadian approach has been to sprinkle funding broadly but with little focus or direction. Indeed, an alphabet soup of programs, investment funds and tax credits have been created to address the issues of lagging innovation and productivity, but with little to show for it.

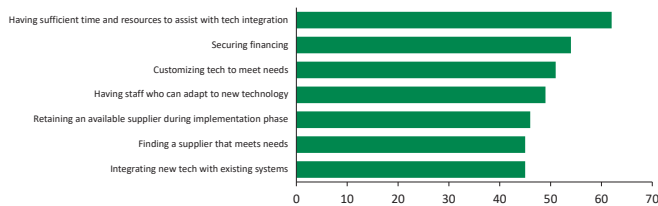
One of the missing pieces to driving innovation and productivity growth that we [identified](#) is support for small- and medium-sized enterprises (SMEs) to adopt new technologies and scale up. Most businesses in Canada are SMEs, and they employ the lion's share of Canadians. But while Canadians are great at starting companies, they aren't great at growing them. Some programs are specifically intended to provide financial support for SMEs to grow, such as the Canada Small Business Financing Program. However, analysis has suggested that other programs, like the Scientific Research and Experimental Development (SR&ED) tax incentive program, may be unintentionally working against scaling up by rewarding companies for being small as opposed to growing quickly.

Canada not only has relatively more SMEs than the US, but [Statistics Canada found](#) that they're less productive than American SMEs as well. In this context, the benefits of the SR&ED program for driving innovation have also been called into question. At the same time, the recent cancellation of the Canada Digital Adoption Program (CDAP), which was intended to help Canadian SMEs to adopt new technologies and innovations, is another step in the wrong direction. SMEs generally recognize the benefits to adopting new technologies but don't necessarily

have the resources to integrate them into existing processes and train staff to use them (graph 15). Indeed, SMEs are often not even aware of these programs. The now-defunct CDAP was meant to close that known gap. Where the US has had more success is in its much-lauded Small Business Innovation Research and Small Business Technology Transfer programs, which leverage the buying power of the US federal government to purchase goods and services from SMEs.

Graph 15
SMEs Have Made Clear What’s Holding Back Investment in Innovation

Challenges faced by SMEs in the technology acquisition process
 % of respondents



Business Development Bank of Canada and Desjardins Economic Studies

Where to from Here?

As Budget 2024 fast approaches, the federal government would be wise to take the opportunity to refocus its plans for encouraging business investment and innovation in Canada. The ongoing erosion in productivity and living standards makes clear that what is being done now isn’t working. Indeed, our analysis suggests the situation is likely worse than previously thought. Given the prevalence of SMEs in the Canadian economy relative to other countries, boosting their productivity through investing in innovation is key to Canada’s long-term success. Leveraging our comparative advantages, like the wealth of untapped critical minerals to support the energy transition, is also low-hanging fruit. But a change in policy direction can’t wait for more deliberation. Action is urgently needed.