

ECONOMIC VIEWPOINT

Working Hard or Hardly Working? Why Canada Lags Other Countries in Real GDP per Capita

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Highlights

- ▶ Real GDP per capita has become a much-talked-about economic indicator in Canada recently. As one of the broadest measures of economic wellbeing, it lends itself to cross-country comparisons.
- ▶ Canadians should be concerned. Canada's real GDP per capita is below the advanced economy average—a gap that has been gradually but consistently widening since 2014.
- ▶ But the blame for this phenomenon has at times been misdirected. Our analysis shows that population growth is only part of the story. Indeed, immigration is not the primary driver of lacklustre growth in real GDP per capita that some have made it out to be.
- ▶ Instead, it is the age-old story of Canada's moribund growth in labour productivity, measured as real GDP per hour worked. However, it's not a one-sector-fits-all story. Rather, the shift toward low-productivity-growth and less-capital-intensive sectors since 2014 has weighed on both overall labour productivity and real GDP per capita growth. Lower oil prices played a key role.
- ▶ While we identify what drove the weakness in Canada's real GDP per capita since 2014 in this note, we do not address what can be done about it. That will be the subject of future research.

There has been increased attention paid to GDP per capita lately as a measure of economic wellbeing in Canada. Rapid population growth—driven by substantial international immigration—and a tight labour market have again underscored Canada's perennial productivity problem. But how bad is our GDP per capita compared to that of other countries? And what is driving the deterioration?

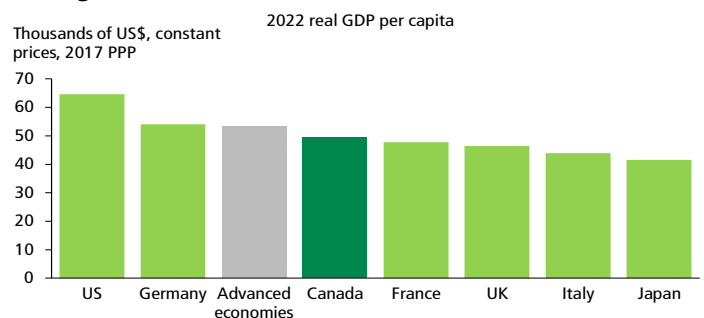
How Low Is Canada's GDP per Capita?

According to the International Monetary Fund in its [April 2023 World Economic Outlook](#), Canada's real GDP per capita was below the advanced economy average in 2022 (graph 1).^{1,2}

¹ We would caution against putting too much stock in the estimated level of real GDP per capita and real GDP per hour worked across countries. While estimates continue to improve, comparability has historically been limited. (See [Statistics Canada, 2007](#).) Instead, growth rates and ordinal rankings are generally considered to be more reliable.

² The group of countries shown here was based on relative size, level of economic development and degree of economic diversification and was kept to the G7 for brevity. While smaller advanced economies are excluded, they are captured in the advanced economy average. Developing countries are not.

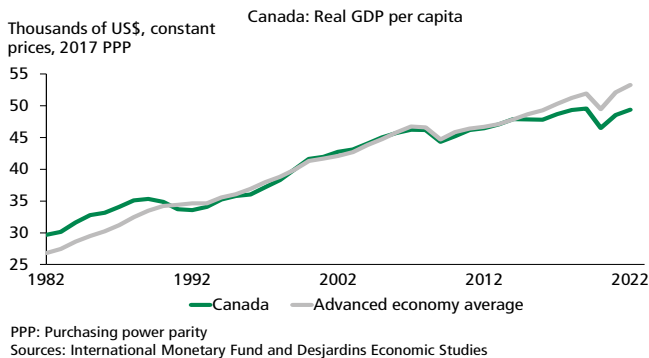
GRAPH 1
Canada's Real GDP per Capita Is below the Advanced Economy Average



PPP: Purchasing power parity
Sources: International Monetary Fund and Desjardins Economic Studies

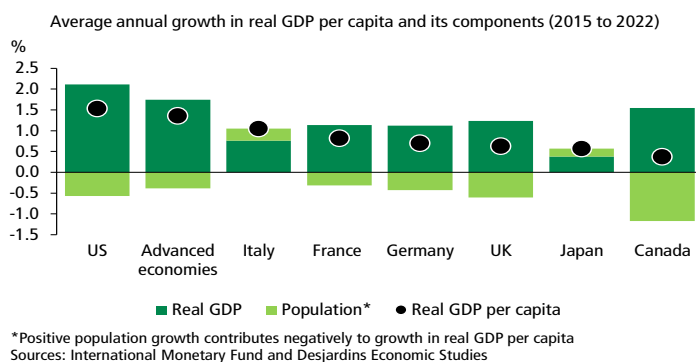
However, Canada was around the average of its rich-country peers as recently as 2014. Since then, an increasingly wide gap has opened up between Canada and other advanced economies (graph 2).

GRAPH 2
Canada's Real GDP per Capita Has Been Roughly Flat since 2014



When you look at it from a growth perspective, things look even worse. Specifically, Canada has had the weakest growth in real GDP per capita among major advanced economies since 2014 (graph 3). Population growth in Canada looks to have played an important role, as it was well above the advanced economy average over the same period. However, real GDP growth contributed to the weakness in Canada as well. While Canada has outperformed most members of the G7 in terms of real GDP growth, it has underperformed both the US and the average of advanced economies since 2014. And its real GDP growth rate barely edged out its population growth rate over the same period.

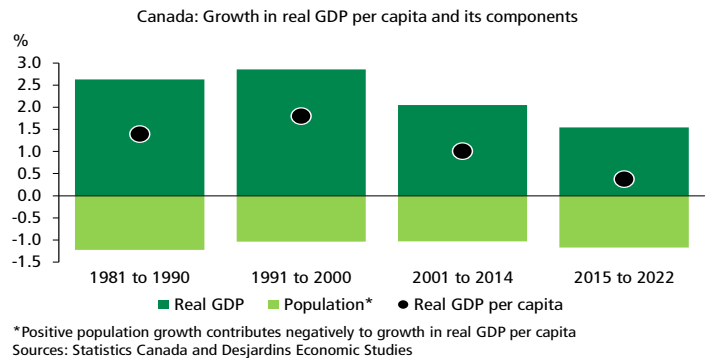
GRAPH 3
Canada Has Had Extremely Low Real GDP per Capita Growth since 2014



We also see this when we look at growth in Canadian real GDP per capita over history (graph 4). In this case, population growth after 2014 has been modestly higher than the historical average, but in line with the pace of the 1980s. In contrast, real GDP growth has been well below the annual average of the prior

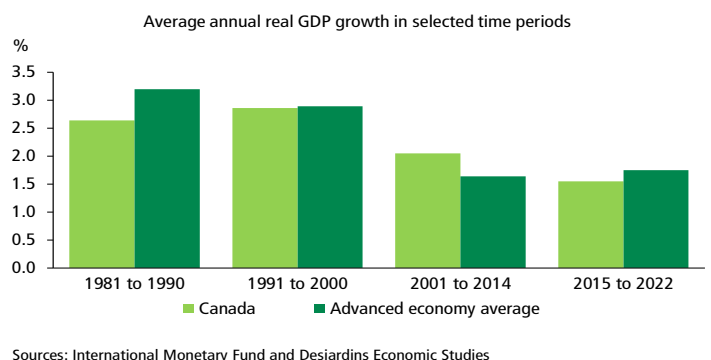
decades. This highlights that lacklustre growth in real GDP per capita over much of the last decade was disproportionately the result of moribund real GDP growth.

GRAPH 4
Real GDP Is Largely to Blame for Weak Real GDP per Capita Growth



Weak real GDP growth in Canada isn't a new phenomenon. Indeed, Canada trailed its advanced economy peers in the 1980s and 1990s, and by a very wide margin in the 80s (graph 5). Real GDP growth in Canada only outperformed in the early part of the 21st century. The return to weak real GDP growth more recently is a clear indicator of economic underperformance in Canada.

GRAPH 5
Canada Has Generally Underperformed Its Peers in Real GDP Growth



Why Has Canada's Real GDP Growth Been So Weak?

To answer that question, we can break real GDP down into its two basic components:

- ▶ Labour productivity measured as real GDP per hour worked
- ▶ Total hours worked

Total hours worked can be further divided into:

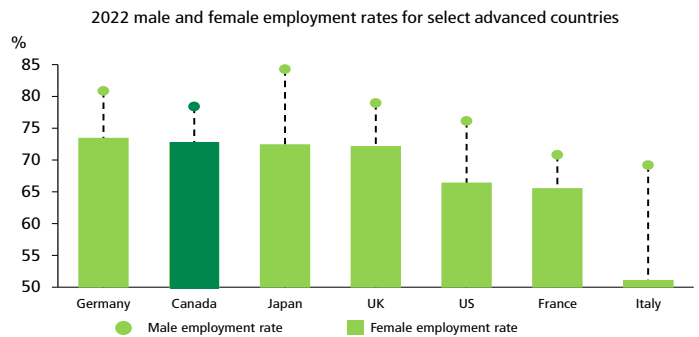
- ▶ Labour force population: essentially Canadians 15 years and older
- ▶ The employment rate: how attached those people are to the labour market
- ▶ Average weekly hours worked

Canadians Are Working Harder...

Digging into total hours worked, we see that Canada stands out relative to our international peers. Its working-age population has been rising faster than that of comparable countries (graph 6). This has been particularly true for prime-age workers—those ages 25 to 54—as a result of the elevated pace of immigration. And this outsized growth in the prime-age population is expected to continue going forward. Consequently, Canada is projected to experience one of the lowest old-age dependency ratios among major advanced economies (graph 7).

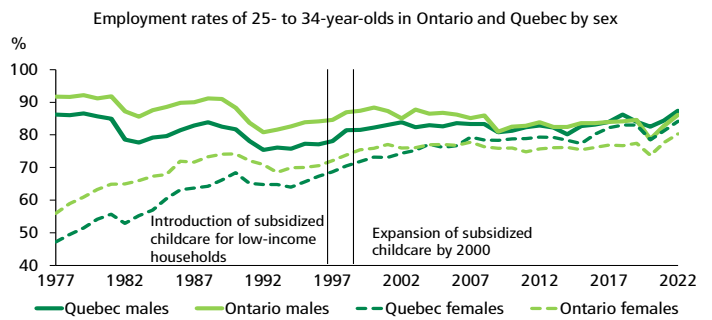
But it goes beyond just our working-age population. Canadians are also more likely to be actively engaged in the labour market than people elsewhere in the developed world, particularly women. Indeed, Canada has the highest female employment rate among major advanced economies (graph 8). And if Quebec is a reasonable guide for the rest of the country, the recent introduction of a nationwide subsidized childcare program should lead to an even greater advantage for Canada in this regard (graph 9). Notably, while Canada’s female employment rate is higher than that of many other advanced economies, our male employment rate is not. This helps to explain why the gap between the female and male employment rates is smaller than elsewhere in the developed world.

GRAPH 8
Canada Has One of the Highest Female Employment Rates in the OECD



Sources: Organisation for Economic Co-operation and Development and Desjardins Economic Studies

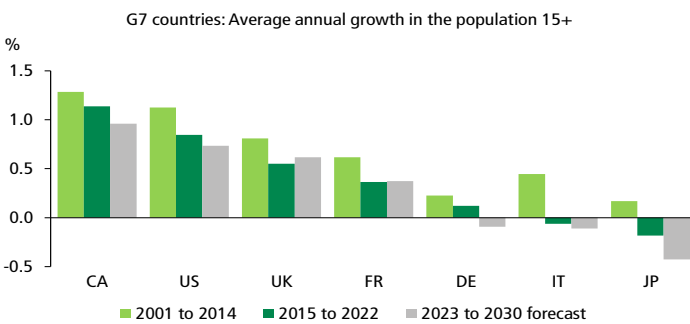
GRAPH 9
Subsidized Childcare Has Boosted Female Employment in Quebec



Sources: Statistics Canada and Desjardins Economic Studies

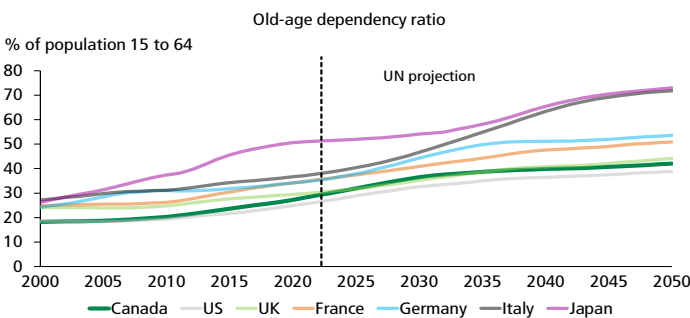
Finally, we can compare average weekly hours worked across advanced economies. Even here, while Canadians don’t rack up the hours Americans do, they have recently put in more hours every week than their European peers (graph 10 on page 4). Notably, average weekly hours worked have been gradually falling across advanced economies. This is likely some combination of an aging population, a shift in the composition of economic activity toward services and away from goods, and greater female labour force participation.

GRAPH 6
Canada Has Outpaced the G7 in Working-Age Population Growth



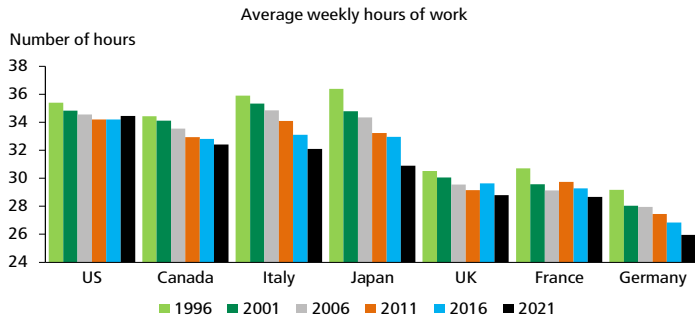
Sources: United Nations and Desjardins Economic Studies

GRAPH 7
Canada Is One of the Youngest Countries in the G7



Sources: United Nations and Desjardins Economic Studies

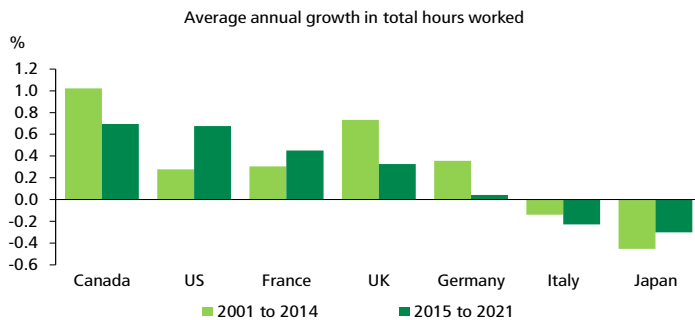
GRAPH 10
In 2021, Canadians Worked More Hours Weekly than Europeans Did



Sources: Organisation for Economic Co-operation and Development and Desjardins Economic Studies

To summarize, Canada has high working-age population growth, an elevated female employment rate (albeit middling male employment rate) and solid average weekly hours worked. Together, these explain why growth in Canada’s total hours worked—labour input—is on par with that of the leading G7 economies (graph 11).

GRAPH 11
Canada Leads the G7 in Growth in Total Hours Worked



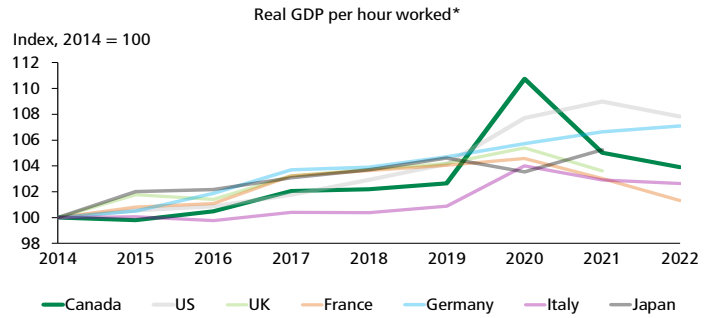
Sources: Organisation for Economic Co-operation and Development and Desjardins Economic Studies

...But Are They Working Smarter?

So, if Canadians are putting in the hours, that must mean Canada’s low real GDP growth is driven by lacklustre labour productivity growth. And that’s exactly what you see in the data. In terms of growth in real GDP per hour worked—labour productivity—Canada is well behind other advanced economies, especially since 2014 (graph 12).

These findings are further reinforced by data from Statistics Canada. While average annual growth in hours worked since 2014 has been the strongest since the 1980s, it has been only marginally higher than it was from 2001 to 2014. Instead, what weighed considerably on real GDP growth starting in 2015 was labour productivity growth, which came in at less than half the pace of any other period presented in graph 13.

GRAPH 12
Canada Has Had Some of the Weakest Productivity Growth in the G7



* This indicator is measured in US\$ (constant prices, 2010 PPP) and indexes.
Sources: Organisation for Economic Co-operation and Development and Desjardins Economic Studies

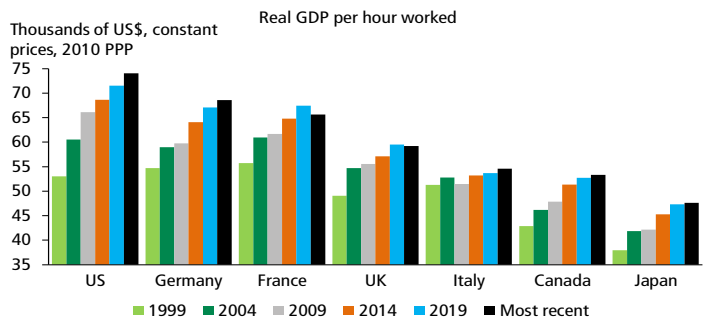
GRAPH 13
Productivity Growth Is the Primary Source of Weak Real GDP Growth



Sources: Statistics Canada and Desjardins Economic Studies

This low labour productivity growth hasn’t been without consequence. It has ensured Canada’s level of labour productivity remained relatively low compared to that of its advanced economy peers (graph 14).

GRAPH 14
Canada Has Consistently Lagged behind Its Peers in Labour Productivity



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

Why Has Productivity Growth Been So Low in Canada?

Lacklustre productivity growth in Canada is not new. For example, it slowed considerably in the early 2000s, which the [Bank of Canada](#) chalked up to insufficient adoption of information and communication technologies. We have also been lagging behind many of our peers for some time. So what has changed since 2014?

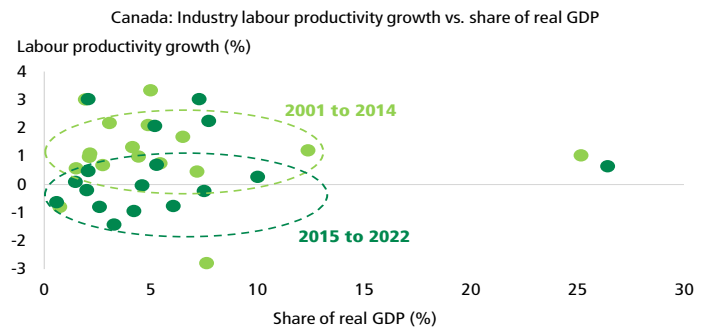
To answer this question, we need to dig deep into the Canadian productivity data. In 2022, the most productive industry in Canada by a wide margin was mining and oil and gas extraction (graph 15). Along with relatively high productivity in utilities, this helped to ensure that goods-producing sectors were more productive than services-producing sectors. When it comes to private services, real estate, rental and leasing is head and shoulders above the rest. This is distantly followed by information and cultural industries as well as finance and insurance.

**GRAPH 16
Productivity Has Increased at Less than Half the Pre-2015 Pace**



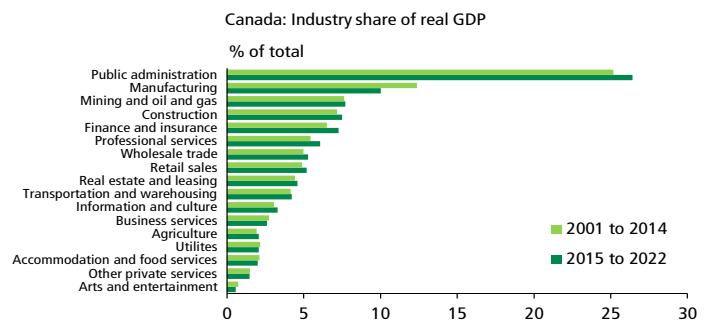
Sources: Statistics Canada and Desjardins Economic Studies

**GRAPH 17
Many Industries Have Seen Less Productivity Growth Recently**



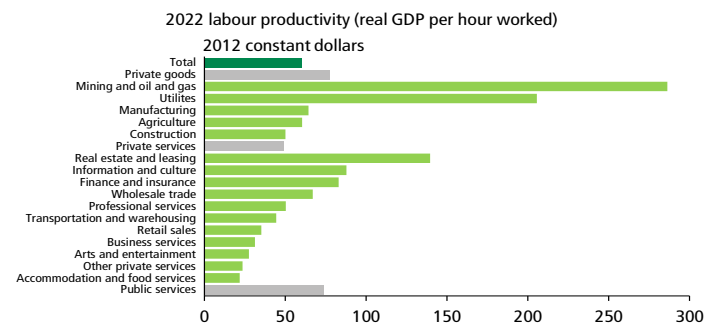
Sources: Statistics Canada and Desjardins Economic Studies

**GRAPH 18
Output Has Shifted to Industries with Lower Productivity Growth**



Sources: Statistics Canada and Desjardins Economic Studies

**GRAPH 15
Productivity Is Dominated by Mining and Oil and Gas Extraction**



*Constant values since 2012 have been recalculated to incorporate the latest data and revisions
Sources: Statistics Canada and Desjardins Economic Studies

Unfortunately, weighing heavily on overall services productivity are accommodation and food services; educational services; and arts, entertainment and recreation. Notably, Statistics Canada has determined that total non-business or public services are more productive than the average real GDP per hour worked of either the private goods- or services-producing sectors. Of course, it's important to keep in mind that productivity in services, and especially public services, is notoriously difficult to measure. When looking at the growth numbers, overall labour productivity in Canada grew at about half the pace after 2014 that it did in the prior 15-odd years (graph 16). This despite some industries seeing labour productivity accelerate after 2014, like agriculture; mining and oil and gas extraction; and finance and insurance.

That's because most sectors saw productivity growth wane or even contract starting in 2015 (graph 17). In addition, economic activity has shifted to sectors with more muted productivity gains. Most specifically, economic activity increased most in public services starting in 2015, rising from around 25.5% of real GDP in 2014 to 27% in 2022 (graph 18). Meanwhile, labour productivity growth in public services slowed considerably

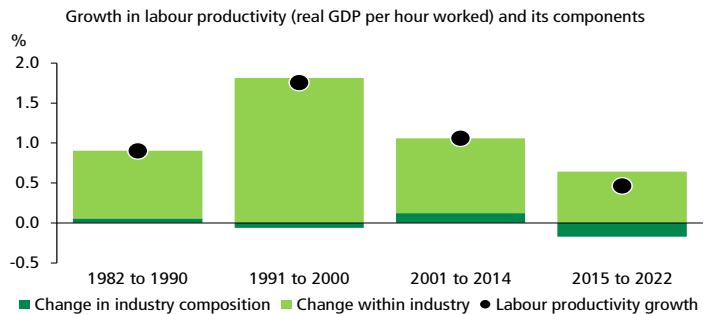
relative to the decade and a half that came before it. Other sectors with significant weight in real GDP—such as manufacturing and construction—also saw a sharp slowing or contraction in labour productivity growth after 2014.

At the same time, mining and oil and gas extraction has continued to hold up as a share of real economic activity. This is largely the result of its outstanding productivity growth since

oil prices fell sharply starting in 2014 (graph 19). Changes in oil prices tend to drive similar moves in real output and employment in support activities for mining and oil and gas extraction. In contrast, real output and employment in oil and gas extraction itself were much less impacted by the decline in oil prices (graph 20). Energy producers dug deep after oil prices fell sharply in 2014, making the tough decisions and finding substantial efficiencies. According to the [CD Howe Institute](#), which used data on oil sands production from the Government of Alberta, “3.5 million barrels per day—nearly 95 percent of the sector’s production—were produced at a marginal cost below C\$50 per barrel with the majority of that production (2.5 million barrels) produced at a marginal cost below C\$40 per barrel.” That is [well down](#) from the more than C\$65 (US\$60) per barrel marginal cost of production prior to 2015. And this isn’t just a Canadian phenomenon. US energy producers look to have done the same, subsequently positioning themselves to return cash to shareholders when oil prices rebounded. (See [analysis](#) from the Federal Reserve Bank of Dallas.)

to Canada’s productivity underperformance from 2015 to 2022 (graph 21). Within-sector productivity growth after 2014 was lower than in prior decades, while the change in the sector composition of productivity growth had the largest drag of any of the periods examined.

GRAPH 21
A Shift in Industry Composition Has Weighed on Productivity Growth

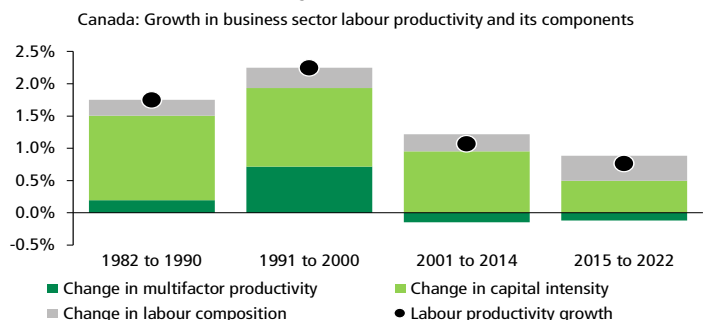


Sources: Statistics Canada and Desjardins Economic Studies

We can also see this when we break down labour productivity growth into its key drivers. [Statistics Canada](#) has outlined these as the change in capital intensity, which is the ratio between capital and labour; change in labour composition, which is the change in the skill level of labour; and the change in multifactor productivity (MFP), which allows us to gauge whether labour and capital together are being used efficiently.

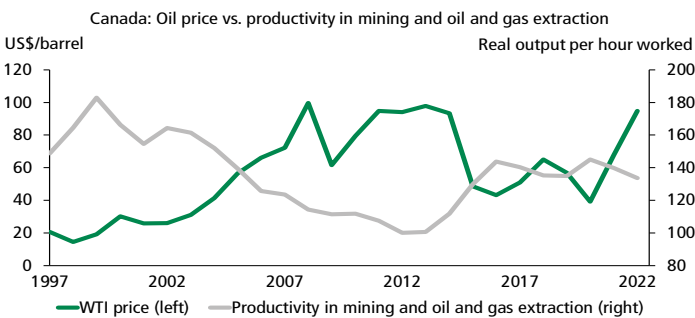
Graph 22 shows that the annual average of capital intensity fell from 1.0% in the 2001 to 2014 period to 0.5% from 2015 to 2022. At the same time, an increase in labour composition from 0.3% to 0.4% provided a modest offset. This, combined with continuing negative growth in MFP, showcases the increasingly inefficient use of both labour and capital in Canada. These results strengthen our earlier finding that the composition of economic activity has shifted toward industries that experienced less capital intensity and productivity growth after 2014.

GRAPH 22
Labour Productivity Growth Has Declined Due to Capital Intensity and Multifactor Productivity



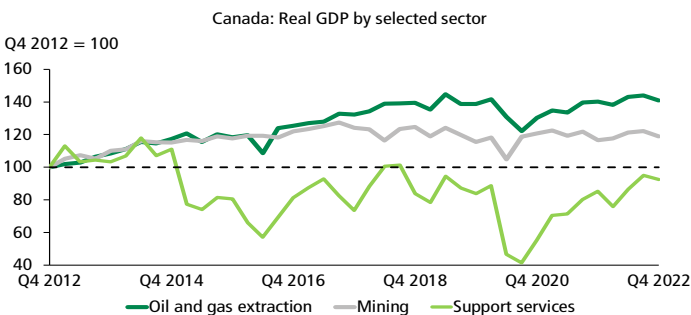
Sources: Statistics Canada and Desjardins Economic Studies

GRAPH 19
Lower Oil Prices after 2014 Drove Increased Resource Sector Productivity



WTI: West Texas Intermediate
Sources: Energy Information Administration, Statistics Canada and Desjardins Economic Studies

GRAPH 20
Energy Sector Support Services Have Yet to Recover



Sources: Statistics Canada and Desjardins Economic Studies

This begs the question: How much of Canada’s moribund labour productivity growth since 2014 was because of a change in sector composition of growth versus a within-sector slowing in productivity? Our analysis indicates that both factors contributed

Conclusion

Real GDP per capita in Canada has been a hot topic of debate lately. Its sluggish performance since 2014 has rightly raised concern.

But many Canadians may be surprised to know that its weakness since 2014 isn't primarily because of population growth and immigration. Instead, it's real GDP growth that has lagged behind, entirely as a result of lacklustre growth in real GDP per hour worked—labour productivity. And this weakness is largely due to a shift in the sector composition of economic activity toward sectors that are less capital intensive and that experienced little or even negative productivity growth. As such, there needs to be renewed focus on improving productivity across industries, which will be the subject of future Desjardins Economic Studies research.