

Market Commentary

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RJL Investment Strategy (Canada) | RJLInvestment.StrategyCanada@raymondjames.ca
Neil Linsdell, CFA, Head of Investment Strategy | 438.843.0150 | Neil.Linsdell@raymondjames.ca

Connecting the Dots on the Productivity Problem

Canada is in the midst of a productivity problem that even the Bank of Canada’s senior deputy governor labeled an “emergency.” Recently, there has been a surge in headlines featuring the term “productivity,” capturing people's attention, but what does that really mean, and what are the impacts to the financial markets and even the standard of living for Canadians?

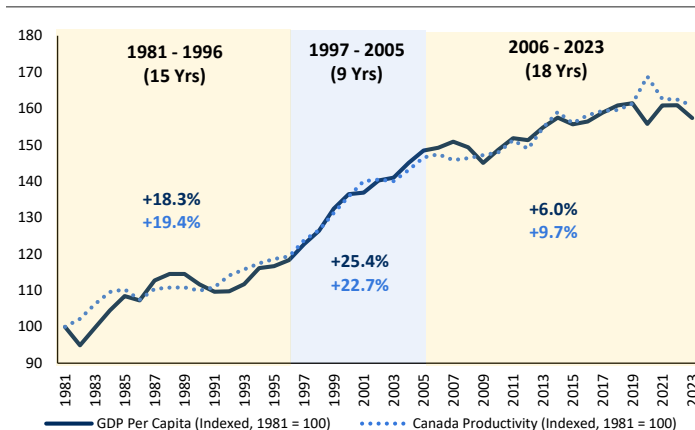
Productivity: The Main Driver of Living Standards and Long-Term Business Profit Growth

To better understand the significance and critical impact of productivity on an economy, let's start with something more familiar: GDP, or Gross Domestic Product. GDP represents the total value of all goods and services produced within a country's borders. When divided by the country's population, it gives us “GDP per capita” which is also commonly used as a proxy for the standard of living within a country. While it may not be completely fair to directly compare GDP per capita between countries in all cases due to varying costs of living, we can make adjustments for purchasing power, and it can be applicable in measuring the trending of standard of living within a country over time.

Breaking down GDP per capita reveals three main factors: (1) Productivity, (2) Average number of hours worked per worker, and (3) Employment-to-population ratio. By examining the long-term trend of GDP per capita alongside productivity, we find they generally move in tandem (Chart 1). Moreover, regardless of the pace of GDP per capita growth and the macroeconomic backdrop, productivity remains the primary influencing factor, as seen in the breakdown (Chart 2), with the other factors being more consistent. Hence, without necessarily delving into the specifics of the productivity calculation, we understand its critical role in the economic framework. Productivity drives living standards, which is why the Bank of Canada (BoC) has shown significant concern about its decline in recent years.

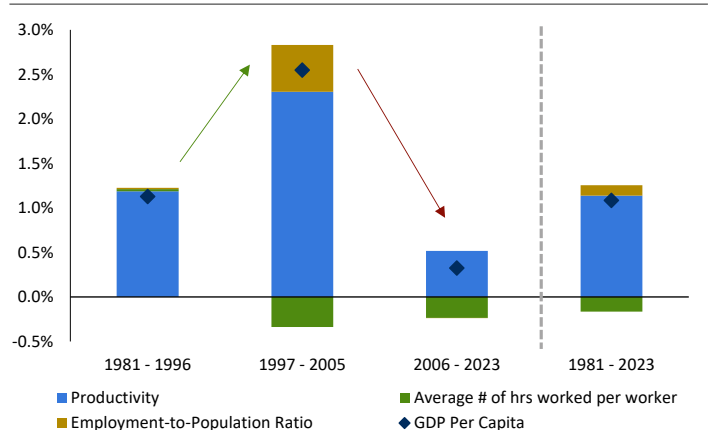
Among the three factors contributing to GDP per capita, the “average number of hours worked per worker” has had a small negative impact, reflecting its relative stability but gradual decrease over time. The “employment-to-population ratio” has made a positive contribution, particularly from 1997 to 2005, due to an increase in working-age people and job creation in Canada. However, this contribution is marginal compared to that of productivity. The key factor is increasing output per hour worked, which is what productivity measures.

Chart 1 - Canada GDP Per Capita And Productivity Since 1981



Source: Statistics Canada, Raymond James Ltd.; Data as of December 31, 2023. Time intervals defined by the rate of growth.

Chart 2 - Factors Contributing to GDP Per Capita Growth (Annualized)



Source: Statistics Canada, Raymond James Ltd.; Data as of December 31, 2023. Time intervals defined by the rate of growth.

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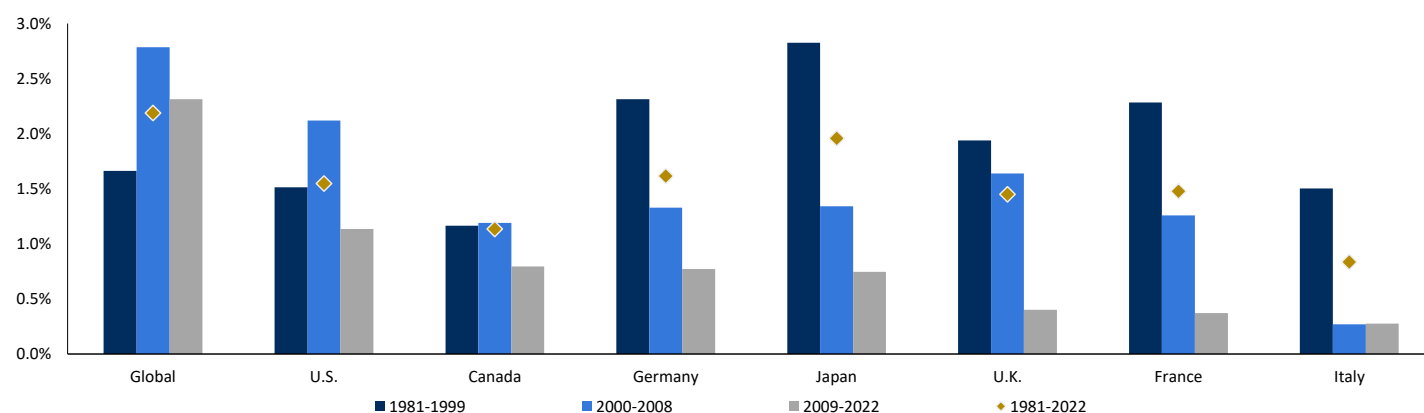
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This also explains why a population boom fueled by increased immigration since 2021 doesn't necessarily enhance, and may even hinder, living standards. Consequently, the government intends to start curbing immigration in 2025. There are only so many new job openings available to absorb additional labour, and without a significant increase in output per worker, GDP per capita cannot rise substantially. Similarly, in addressing the inflation issue, productivity is a way to shield the economy from high inflation. Less productive employers are more impacted by labour costs that must get passed on to their customers. In contrast, more productive companies tend to have better control on costs and can tend to pay better wages. Therefore, the primary focus now is on boosting productivity, as emphasized by the BoC's senior deputy governor Carolyn Rogers in her March 26 speech¹, describing the situation as an "emergency."

Productivity and labour force growth are both important drivers of real GDP (GDP beyond the rate of inflation). We must also remember that, in the long term, GDP growth determines the underlying potential for businesses operating in a country. Any impediment to growth, such as lagging productivity, also hinders business growth and profit, which in turn affects stock market valuations of public companies and the value of investment portfolios.

Canada's position in productivity growth among the G7 nations highlights the pressing need for improvement (Chart 3). Over the past 42 years, Canada has fallen behind all other G7 countries in annualized productivity growth over that entire period, with the exception of Italy. While it's understandable that emerging countries would experience higher growth rates compared to developed countries, as evidenced by the higher global productivity growth compared to the G7's, Canada's productivity growth has remained relatively stagnant, hovering at the lower end of the G7 spectrum from 1981 to 2008. Meanwhile, Japan and countries in Europe saw significant growth before 2000, and the U.S. saw a resurgence in productivity growth since late 1990s until 2008, driven by investment and technology diffusion. Since the post-global financial crisis up to 2022, Canada's productivity growth has been on par with Germany and Japan, outperforming the U.K., France, and Italy, but still significantly trailing behind the U.S.

Chart 3 - Productivity Growth of G7 Countries Across Various Time Periods (Annualized, Adjusted for Purchasing Power Parities)



Source: The Conference Board, Total Economy Database - Output, Labor and Labor Productivity. Raymond James Ltd.; Data as of year end 2022.

Investment: The Key to Boosting Productivity

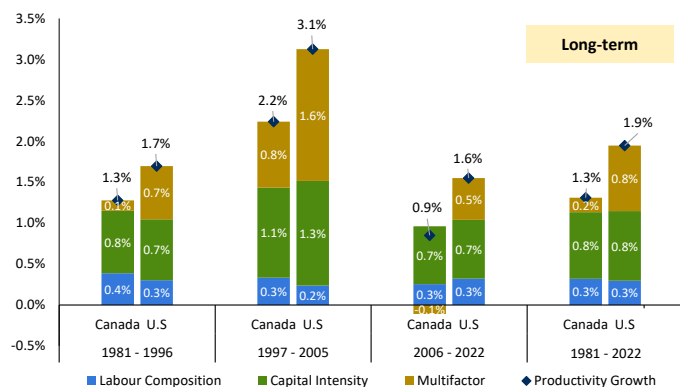
So, what are the reasons behind Canada's lagging productivity? Productivity measures the amount of output produced per hour worked, calculated as GDP divided by the total hours worked in an economy. To better understand the key drivers, we can break down productivity growth into the following three factors:

- Labour Composition:** This reflects the effects on productivity growth from skill upgrading, as measured by increases in the experience and education levels of the workforce.
- Capital Intensity:** This reflects the effects of capital investment on productivity growth, indicating how much more productive workers are due to better tools, machinery, and infrastructure.
- Multifactor Productivity (MFP):** This captures the effects of technological advances, efficiency improvements, and other factors not accounted for by labour composition and capital intensity, such as a favourable macroeconomic environment.

Examining the breakdown of productivity growth factors in Canada and the U.S., we find that the contribution from labour composition remains stable at around 0.3 per cent in both countries, and is generally much less significant than the other two factors (Chart 4). The recent slowdown

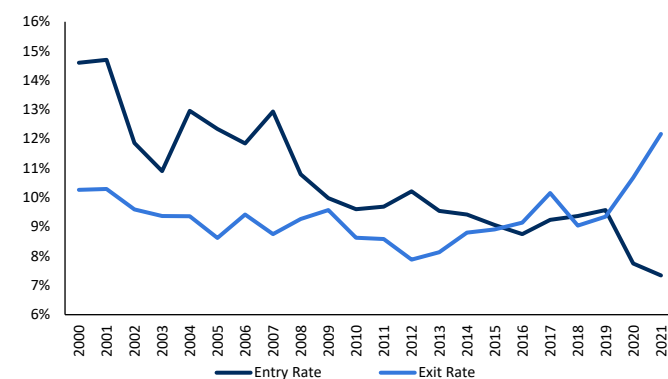
in productivity growth (2006–2022) is attributed more to a substantial decline in MFP growth and lower capital intensity growth compared to the period from 1997 to 2005, characterized by a surge in investment in Information and Communications Technologies (ICT). It's worth noting that business investment tends to enhance productivity through both capital intensity and MFP productivity channels. For instance, ICT investment can boost capital stock per worker if the number of workers increases at a slower rate, as well as, improve efficiency. However, determining the specific contributions of different types of business investments to each of these channels is nearly impossible. Another finding is that the productivity growth gap between Canada and the U.S. is primarily attributed to MFP, indicating a relative lack of business investments in Canada.

Chart 4 - Breakdown of Productivity Growth (Annualized)



Source: Statistics Canada, U.S. Bureau of Labor Statistics, Raymond James Ltd.; Data as of December 31, 2022. Time intervals defined by the rate of growth.

Chart 5 - Lower Entry Rate and Higher Exit Rate in Canada



Source: Statistics Canada, National Accounts Longitudinal Microdata File database, Raymond James Ltd.; Entry and exit rates are industry-weighted averages based on employment; Data as of December 31, 2021.

Limited Competition: The Biggest Concern

The primary drag on Canada's productivity growth is the weak record of business investments, with its root cause—low competition—being the biggest concern. According to the report published by Statistics Canada this February², a decline in competition leads to a decline in investment, while competition promotes investment among firms. In her March 26 speech, the BoC's senior deputy governor Carolyn Rogers also highlighted that "businesses become more productive when they're exposed to competition. Competition drives companies to become more productive by innovating and finding ways to be more efficient¹."

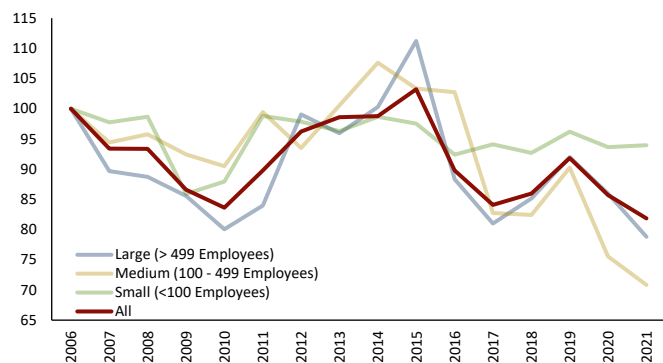
Entry rates and exit rates (of businesses in the country) serve as indicators of competition. In Canada, high entry rates generally signify intense competition, which in turn stimulates investment. However, the entry rate has plummeted from 12.9 per cent after 2006 to only 7.3 per cent post-COVID (Chart 5). Similarly, elevated exit rates usually suggest declining investment opportunities due to weak demand or high market concentration, and firms in industries with high exit rates have less incentive to invest. The exit rate reached a new peak in 2021 at 12.2 per cent. The lower entry rate and higher exit rate suggest diminishing competition in Canada, partially explaining the significant slowdown in productivity since around 2006.

The limited levels of competition in many sectors in Canada are the result of relatively high entry barriers, directly or indirectly erected by the government. According to the OECD³, Canada's Foreign Direct Investment (FDI) restrictiveness is significantly higher than that of the other G7 countries, ranking 18th out of 80 countries in 2020 (the U.S. ranked 33rd, Italy 48th, Japan 49th, France 53rd, the U.K. 56th, and Germany 67th). Barriers to entry for foreign businesses, state-owned monopolies, and explicit regulations limiting competition collectively protect over 30 percent of the economy, by conservative estimates⁴. Additionally, Canada's Red Tape Report⁵ highlights that both the cost of red tape and the cost of necessary regulations increase substantially as company size decreases, as does the annual time spent on regulation per employee. This extra time and resource expenditure places a heavy burden on entrepreneurs, significantly impacting their MFP due to reduced efficiency. Such an environment is unfavourable for promoting entrepreneurship. Since 2000, following a brief period of acceleration from 1997 to 1999, the growth in self-employment has lagged behind both private and public sector employment.

The decline in investment per worker by firm size further demonstrates that a lack of competitive pressure reduces the need for established firms to adopt new methods and technologies. Investment per worker in large and medium firms dropped by 21 per cent and 29 per cent, respectively, from 2006 to 2021, while small firms saw a relatively stable trend but still decreased by 6 percent (Chart 6). The decrease in investment per worker is disproportionately more significant for large and medium-sized firms (Chart 7). Beyond limited competition, two other key factors contribute to this trend. First, the investment per worker in large firms was impacted by the oil and gas price collapse in 2014, as a substantial share of these

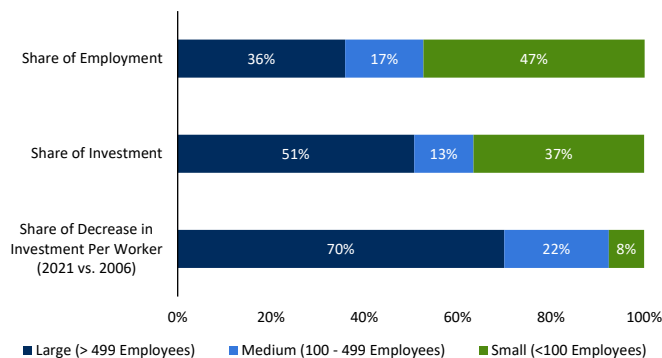
firms are foreign-controlled within the oil and gas sector. Second, there has been a shift from tangible to intangible investments, which is more pronounced among large and medium-sized firms. The investments in intangibles are harder to capture using existing measurement methods. Nonetheless, the decline in investment per worker persists even after excluding these factors. As Carolyn Rogers mentioned, Canada lags behind its global competitors in investment in machinery, equipment, and, importantly, intellectual property¹.

Chart 6 - Investment Per Worker by Firm Size (Indexed, 2006=100)



Source: Statistics Canada, National Accounts Longitudinal Microdata File database, Raymond James Ltd.; Data as of December 31, 2021.

Chart 7 - Contribution to the Decline in Investment by Firm Size



Source: Statistics Canada, National Accounts Longitudinal Microdata File database, Raymond James Ltd.; Data as of December 31, 2021.

Interestingly, unlike the long-term historical trend where corporate earnings growth and productivity growth are relatively aligned, there has been a noticeable divergence between their growth rates over the past two decades, on a global scale. In Canada, the annualized earnings per share (EPS) growth for large and medium-cap public companies has been five to six per cent, while small-cap EPS grew at three per cent, but productivity growth was below one per cent. This gap is likely due to several factors: the significant increase in global integration, which has substantially lowered input costs for some businesses; a robust labour market fueled by immigrants, which has restrained wage growth; and a low interest rate environment, which has reduced financing costs. Additionally, limited competition has given existing players in many industries higher pricing power, thereby boosting their margins. However, with the world becoming more fragmented and the likelihood of a return to ultra-low interest rates diminishing, we anticipate that most of these trends are nearing their peak. In the long term, GDP growth, supported by productivity and labour force expansion as previously discussed, will be the primary determinant of businesses' underlying profitability in Canada.

Next Steps

On a positive note, policymakers in this country seem to be well aware of the significance of productivity growth. They understand that excessive protectionism can dampen business investment motivation, and policy uncertainties pose challenges to companies. Despite the proposed capital gains tax hike in the 2024 budget possibly discouraging entrepreneurship in Canada, there have been efforts from various levels of government to encourage Crown corporations, such as the Business Development Bank of Canada (BDC) to finance small and medium-sized businesses to increase their risk appetite, thus facilitating more capital flow to Canadian companies. Additionally, the Competition Bureau of Canada has advocated for greater competition in several sectors, including telecommunications, grocery, and financial services.

Looking ahead, given our anticipation that corporate earnings growth gradually realigns with productivity growth in the future, we maintain a long-term bullish outlook on North American sectors central to ongoing major trends, such as clean energy transformation/electrification, artificial intelligence, and reshoring. These areas are likely to face intense competition and consistently attract increased investments from both the government and private sectors.

From an investment perspective, we find it useful to consider what region, country, or industry might be well positioned for productivity growth in order to achieve above-average returns. This includes having policymakers maintain and support an environment conducive to competition and entrepreneurship. For now, the U.S. seems to be the leader within this context, although we remain optimistic that Canadian governments and individuals have the opportunity to regain momentum.

¹Carolyn Rogers (2024), Time to break the glass: Fixing Canada's productivity problem, Bank of Canada, <https://www.bankofcanada.ca/2024/03/time-to-break-the-glass-fixing-canadas-productivity-problem/>

²Wulong Gu (2024), Investment Slowdown in Canada After the Mid-2000s: The Role of Competition and Intangibles, Statistics Canada, <https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2024001-eng.htm>

³OCED (2023), FDI restrictiveness, OCED Data, <https://data.oecd.org/fdi/fdi-restrictiveness.htm>

⁴Vincent Geloso (2020), Barriers to Entry and Productivity Growth, Fraser Institute, <https://www.fraserinstitute.org/sites/default/files/barriers-to-entry-and-productivity-growth-4day-week-essay.pdf>

⁵Marvin Cruz, Keyli Kosiorek, Laura Jones, and Taylor Matchett (2021), Canada's Red Tape Report, Sixth Edition, Canadian Federation of Independent Business, <https://www.cfib-fcei.ca/en/research-economic-analysis/canadas-red-tape-report>

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