

ECONOMIC VIEWPOINT

The Future Is Now: The Macroeconomic Implications of AI

By Randall Bartlett, Deputy Chief Economist

HIGHLIGHTS

- ▶ It is increasingly clear that the widespread use of artificial intelligence (AI) is boosting growth, investment, productivity and profitability, and more so in the United States than in Canada. This suggests Canada has an opportunity to increase the rate of AI adoption and attract investment, thereby narrowing the gap with the US. And it's important that Canada work to close this gap now, as labour productivity growth like that seen during the internet boom of the late 1990s and early 2000s could dramatically raise real GDP per capita relative to the alternative.
- ▶ However, the more widespread use of AI risks causing uneven effects across growth, employment, incomes and inflation during the transition phase. Some early signals from the US point to productivity gains accruing more to profits than wages, and AI creating localized labour market disruptions in highly exposed occupations. Canada may be seeing the first signs of this now, although the evidence is mixed. Concerns about the erosion of real compensation from AI adoption has prompted backlash from some quarters, with modest policy responses to address concerns so far. This pushback could increase if AI use becomes more disruptive. Canada would be wise to avoid some of the pitfalls currently driving AI skepticism south of the border.

AI is front of mind for policymakers, investors and almost everyone else. While it is increasingly clear that AI is boosting growth, investment, productivity and profitability, it may be coming at the cost of employment, incomes and inflation. In this note, we tease out the macroeconomic benefits and costs of AI adoption to date, and what continuing down this road could mean for the US and Canadian economies going forward.

How AI Has Shaped Economies So Far

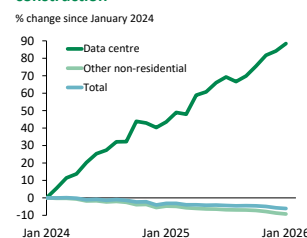
Investment and Economic Growth

Expenditure on AI-related capital assets such as data centres was a key driver of economic growth in the US in 2025. Indeed, investment in non-residential structures south of the border would have contracted much more deeply without it (graph 1). The same can be said for real investment in IT equipment and software stateside. Looking at US real GDP growth last year, nearly 30% of the advance can be chalked up to investment in IT equipment and software (graph 2 on page 2). In contrast, Canadian investment in these areas lagged well behind the US in 2025, exacerbating a trend of slumping outlays on innovation that has long been an issue for Canada. As a result, not much

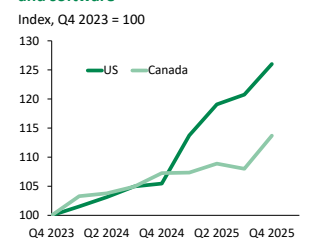
Graph 1

AI-Related Investment Keeps Pushing Higher in the US

US nominal private non-residential construction



Real business investment in IT equipment and software

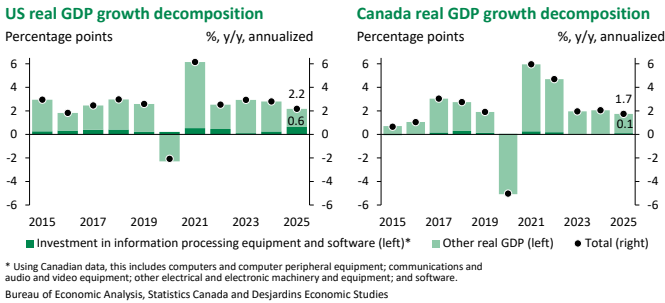


US: Census Bureau, Bureau of Economic Analysis, Statistics Canada and Desjardins Economic Studies

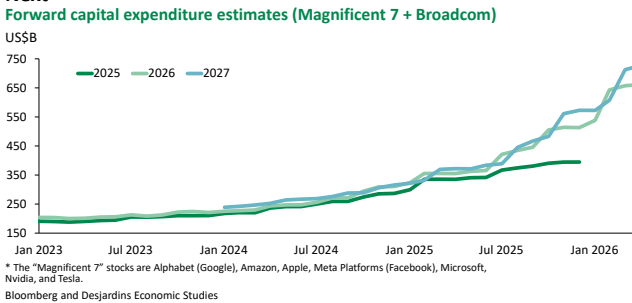
better than about 5% of the gains in real GDP last year can be attributed to investment in AI-related capital expenditure.

Looking ahead to the rest of 2026, ongoing AI-related capital expenditure is expected to continue to support economic activity south of the border (graph 3 on page 2). This tailwind should help to counteract the headwinds of higher inflation and interest rates. And while tech-related investment did pick up in Canada toward the end of last year, there is a lot of ground to make

Graph 2
Canada Has Lagged the US in Tech Investment, and It's Getting Worse



Graph 3
Tech Companies Are Set to Further Ramp Up Investment This Year and Next



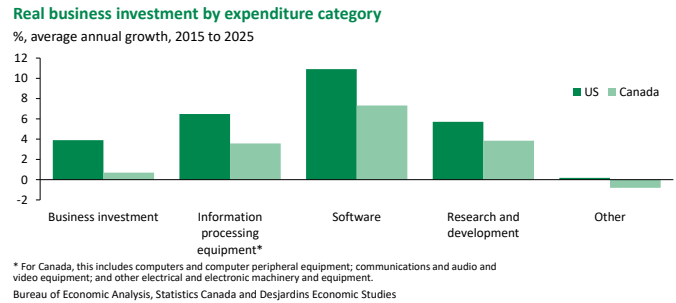
up to close the gap with the US. More specifically, there is a strong case to be made for greater investment in data centres in Canada. Electricity is generally less expensive here than in the US, and much cheaper in some markets such as Quebec. Canada's climate is also cooler, and the regulatory environment is increasingly investment-friendly.

Productivity Growth

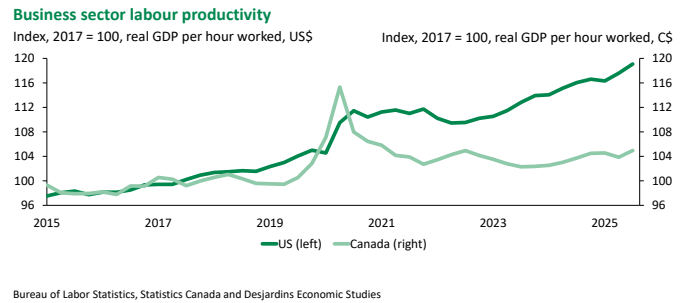
As we've discussed at length in [past research](#), the US has undertaken sustained investment in innovation over the past decade in areas such as IT equipment, software, and research and development (graph 4). This has well outpaced similar investment in Canada and helps to explain at least part of the significant divergence in productivity between the two countries since the pandemic (graph 5).

Ultimately, productivity is measured as real output per hour worked. So, for productivity to rise, real output must advance at a faster pace than hours worked. And what we've seen is real GDP expanding faster and post-pandemic hours worked growing slower in the US vs. Canada (graph 6). This implies that Americans are doing more (real output) with less (hours worked) than their Canadian cousins.

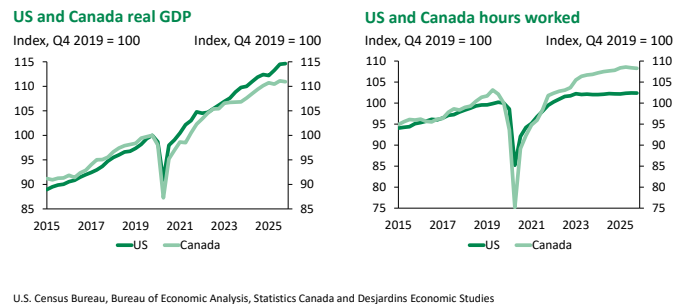
Graph 4
US Business Investment Has Been Concentrated in Innovation



Graph 5
Canada's Labour Productivity Has Been Lagging Behind the US's



Graph 6
Higher US Productivity Is Due to Stronger GDP and Fewer Hours Worked



Employment

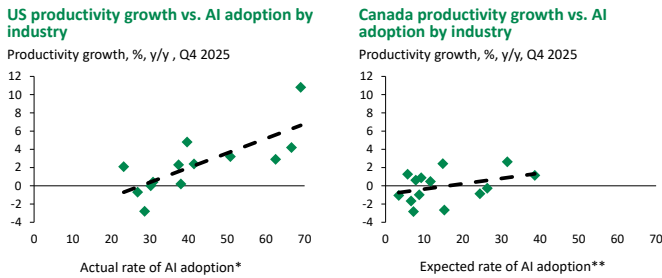
Immigration policy is surely part of the weak hours worked story in the US versus Canada. But so could the long-feared replacement of jobs with AI. Unfortunately, data on this to date are relatively scant and causality hotly debated. Research on this topic suggests that in the US, "early-career workers (ages 22–25) in AI-exposed occupations experienced 16% relative employment declines, controlling for firm-level shocks, while employment for

experienced workers remained stable.” (Brynjolfsson, Chandar and Chen (2025)) Employment changes were “concentrated in occupations where AI automates rather than augments labor.” Examples of occupations most exposed to AI include customer service representatives and computer programmers. Earlier research on this was mentioned in our analysis of the youth labour market last year. The impacts on employment and productivity in sectors with the highest rates of AI adoption are clear stateside (graph 7). However, the impact has yet to show up as materially in the Canadian data, possibly due to lower rates of AI adoption. Delayed technology adoption is a long-standing pattern among companies in Canada, and AI seems to be no exception. This may partly reflect the greater presence of small businesses in Canada, and could be exacerbated by today’s uncertain economic conditions. That doesn’t mean Canadian workers in sectors where AI poses a higher risk of task replacement aren’t concerned (graph 8).

Wages and Corporate Profits

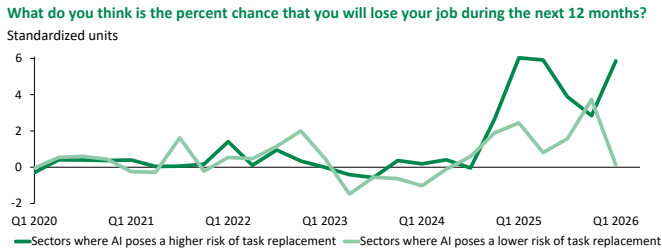
Historically, productivity gains have helped to boost real wages by both increasing worker productivity and helping to mitigate higher inflation. However, that’s not what has been observed in the US since the pandemic ended. Productivity south of the border has been well outpacing real compensation per hour since the end of 2021 (graph 9). In contrast, stagnant productivity in Canada has been mirrored by stagnant real compensation. That would point to a rising share of profits relative to wages in the US versus Canada, and that’s certainly what has been observed over the past couple of years (graph 10). A growing gap between corporate profits and labour income also risks exacerbating the wealth divide in the US and Canada, which has only gotten larger since the pandemic.

Graph 7 More Aggressive AI Adoption in the US Is Boosting Productivity



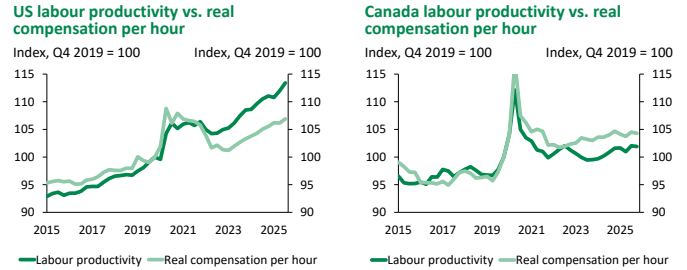
* US employment data are private payroll from the Establishment Survey, while the Canadian employment data are total employment from the Labour Force Survey (Canada’s equivalent of the US Household Survey). ** The US measure is defined as “the share of employed respondents who use gen AI for work” in Q4 2025; the Canadian measure is the “use of artificial intelligence among businesses in producing goods or delivering services over the next 12 months” in Q4 2025. Federal Reserve Bank of St. Louis, The Project on Workforce, Bureau of Labor Statistics, Bureau of Economic Analysis, Statistics Canada and Desjardins Economic Studies

Graph 8 AI-Exposed Workers in Canada Are Increasingly Concerned About Their Job



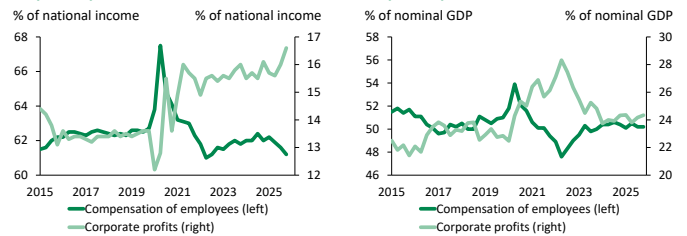
Note: Sectors where artificial intelligence (AI) poses a lower risk of task replacement include agriculture and forestry, mining and oil and gas, construction, manufacturing, transportation and warehousing. Sectors where AI poses a higher risk of task replacement include finance, insurance, real estate, rental and leasing, utilities, retail and wholesale trade, public sector, and information, culture and recreation. Bank of Canada and Desjardins Economic Studies

Graph 9 Productivity Is Outpacing Real Compensation in the US



U.S. Census Bureau, Bureau of Economic Analysis, Bureau of Labor Statistics, Statistics Canada and Desjardins Economic Studies

Graph 10 Since the Pandemic, US Corporate Profits Have Outperformed Canada’s



Bureau of Economic Analysis, Statistics Canada and Desjardins Economic Studies

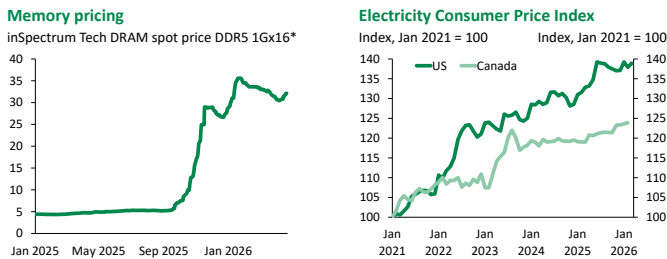
A widening gap between labour productivity and real compensation per hour is not unusual during periods of rapid adoption of new technologies. Indeed, this pattern was evident in the decade starting in the mid-1990s with the advent of information technology and the internet. In contrast, in the decade preceding the COVID-19 pandemic, with adoption of these technologies already widespread, the two series tracked each other more closely.

Inflation

At the same time, AI investment may also be boosting costs to consumers. Memory pricing for electronics has gone through the roof since AI capex investment really took off, with the price of memory rising over 600% since late August 2025 (graph 11, left). Import prices for semiconductors, computers and electronic products have also been rising quickly, both in the US and Canada, likely reflecting a mix of demand factors but also import tariffs. Electricity prices have also risen particularly acutely in the US in recent years, up nearly 40% since the start of 2021 (graph 11, right). In the US, this has led to concerns expressed by both the White House and Congress, culminating most recently in the [Ratepayer Protection Pledge](#). This requires hyperscalers and AI companies to invest in their own power supply and upgrades to the existing grid. On average, electricity prices are cheaper in Canada than in the US, with Quebec having the most affordable prices in the country. However, even that data-centre-heavy province is seeking to double its electricity rate on data centres that consume more than 5 megawatts per year by mid-2026.

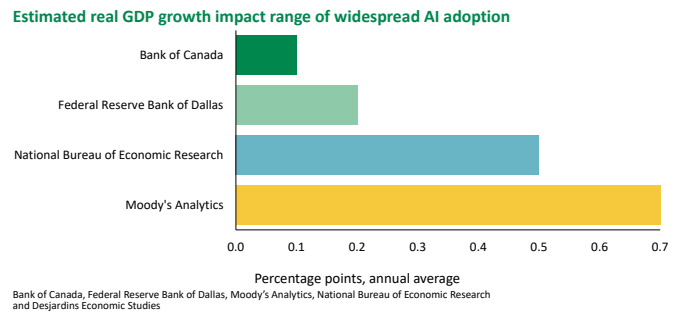
had the broad measure of living standards rising at about 2.1% on average annually over the next decade (graph 12). That's 0.2 percentage points (ppts) higher in every year of the outlook than growth in their non-AI-boosted scenario.¹ This is in line with the 0.1 ppt annual upside to the Canadian potential GDP growth forecast that the [Bank of Canada \(2025\)](#) suggests could come from the broader adoption of AI. Similarly, a recent note from [Moody's Analytics \(2026\)](#) put the range of possible real GDP growth outcomes at between 2.1% and 2.8% on average annually over the next decade, relative to a baseline of 2.3%. And even more recently, [National Bureau of Economic Research \(NBER, 2026\)](#) analysis determined a median outlook for the "annual GDP growth rate of 2.5%, which exceeds both the typical medium-run (2.0%) and long-run (1.7%) baseline forecasts from government agencies and private-sector forecasters." Assuming little change in population, this would put the average annual increase in US real GDP and real GDP per capita growth due to more widespread AI adoption in the range of about 0.1 to 0.7 ppts through the end of the decade.

Graph 11
AI Investment and Use Appear to Have Been Driving Up Costs Recently



* As of April 22, 2026.
Bloomberg, Bureau of Labor Statistics, Statistics Canada and Desjardins Economic Studies

Graph 12
AI Adoption Is Almost Universally Projected to Raise Real GDP Growth



Despite concerns around higher power prices, it's an open question whether data centres are a source of rising electricity costs in the US. [Some research](#) has suggested that a combination of other factors have contributed much more to higher consumer electricity prices than data centres, including more extreme weather, wildfire mitigation, rising insurance costs, higher energy prices, and infrastructure investment. Our internal analysis has found little relationship between higher electricity prices and generation and the share of power used by data centres.

How AI Could Shape the Economic Future

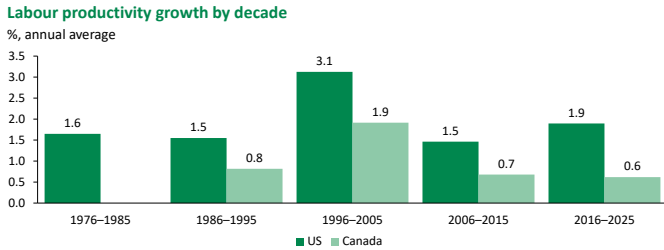
Productivity and Economic Growth

Few doubt that AI will accelerate productivity and economic growth in the future. The [Federal Reserve Bank of Dallas \(2025\)](#) published projections last year that looked at the potential change in US real GDP per capita. Their central scenario

However, these estimated AI impacts on the real GDP growth forecast may be conservative. For instance, US productivity growth in the decade starting in 1996 was roughly double what it was in the prior decade, at 3.1% year over year versus 1.5% (graph 13 on page 5). That would point to US real GDP per capita growth of closer to 3.1% annually over the next decade if the productivity-enhancing benefits of AI are like those of the early internet age. However, labour productivity growth returned to an annual average of 1.5% after 2005, implying this may be more of a steady-state growth rate that could be expected after the AI-fuelled gains are exhausted. Meanwhile, labour productivity has advanced at a much more modest pace in Canada than in

¹ Of course, it should be noted that the Dallas Fed's projections were more widely cited for their extremes than for their central scenario, including a benign scenario that would lead to the end of scarcity and an existential scenario that would lead to human extinction. We consider each of these latter two scenarios to be highly unlikely.

Graph 13
The US–Canada Productivity Growth Gap Has Been Widening



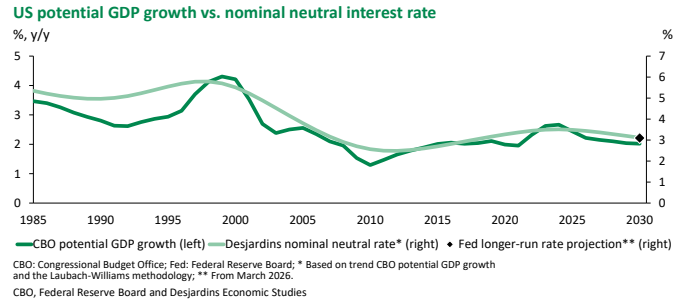
Bureau of Labor Statistics, Statistics Canada and Desjardins Economic Studies

the US historically, and there is no reason to think that gap will close even in the event of another technology-driven boom. Still, any meaningful improvement would be much welcome, given the central role productivity plays in the long-term outlook and fiscal sustainability.

Inflation and Interest Rates

The anticipated productivity boom from widespread AI adoption should ultimately be a disinflationary force. This is the argument that Kevin Warsh, nominee for Chairman of the Federal Reserve Board, has made to justify his desire to lower short-term interest rates in the future. He’s argued that by cutting short rates to spur investment today, it will help to move forward the productivity-driven disinflationary impulse from AI. But it’s not that simple. Core Personal Consumption Expenditures (PCE) inflation in the US was close to 3% through 2025 and has been rising steadily since reaching recent lows in April last year. Higher input costs due to skyrocketing oil prices will only exacerbate this trend. Cheaper money will not help to rein that in and will likely only make it worse. Further, as has been discussed here, AI investment looks to be exacerbating, not relieving, near-term inflationary pressures in some cases. Finally, nearly \$1 trillion in potential AI-related capital expenditure and greater long-term growth suggests the neutral rate of interest—the policy interest rate reached when inflation is at 2% and the labour market is at full employment—should be higher, not lower (graph 14). As such, materially easier monetary policy in the current economic environment stateside could exacerbate risks to the US economy and financial markets while eroding the independence of the Federal Reserve. Warsh’s intent to reduce the Fed’s balance sheet would nonetheless mitigate the easing in financial conditions. In Canada, the implications are far less material given the lack of AI adoption, lesser prevalence of AI-related capex, lower underlying inflation and independence of the Bank of Canada from political interference.

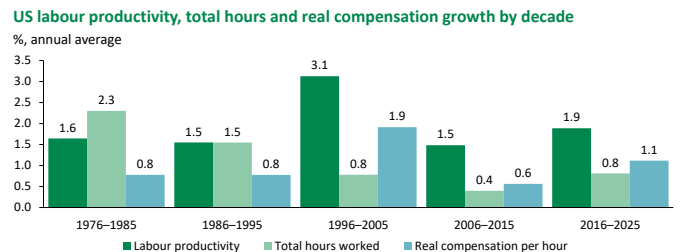
Graph 14
Higher Trend Real GDP Growth Leads to a Higher Neutral Interest Rate



Employment and Wages

But the widespread use of AI is likely to have impacts beyond just growth in investment, productivity, real GDP and prices. Early evidence discussed previously suggests that employment and incomes could be held back by advances in AI as some tasks—and possibly even occupations—are replaced. But the impact of new technologies on the labour market isn’t always clear. For instance, during the internet boom in the decade starting in the mid-1990s, growth in employment and total hours worked slowed (graph 15). However, this period also saw an acceleration in real compensation per hour, a rise in the employment rate and a decline in the unemployment rate. Of course, there were other confounding factors at the time that also likely contributed to these labour market outcomes. These include shifting demographics, multilateral trade agreements, China’s ascension to the World Trade Organization, the introduction of inflation targeting and social policy changes. Other historical examples of periods where new technologies like the automobile became widely used had similarly mixed but broadly positive labour market outcomes, albeit with varied sectoral and regional economic outcomes (Gordon, 2016).

Graph 15
Higher US Productivity Growth Has Pushed Wage Gains Higher



Bureau of Labor Statistics, Statistics Canada and Desjardins Economic Studies

Conclusion

The evidence suggests that AI is beginning to shape growth dynamics in the US. More is being invested in AI, resulting in higher productivity and profitability, particularly in a narrow set of highly exposed sectors. However, if this boom were to broaden and accelerate, it could come at the cost of employment in some occupations, and therefore worker incomes. This would be the case especially if the number of displaced jobs widely exceeded the number of new jobs that AI were to create. And the widening income and wealth gap stateside could be further exacerbated by the growing prevalence of AI.

In Canada, there is substantial opportunity to capitalize on some of the more positive trends emerging from AI investment. The country has many of the preconditions that should support higher tech-related spending, including relatively inexpensive electricity and a cold climate. But as a laggard trying to catch up, Canada should be mindful to mitigate the risks currently being encountered in the US. Ensuring policies are in place to minimize inflationary impacts and support workforce transitions would be a good place to start.