Canada's Productivity Problem:

A 50-Year Decline in Economic Momentum

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Abstract

Canada's labour productivity growth has declined persistently for five decades, producing a gap with the United States that now stands at approximately 30 percent in output per hour worked and generates an aggregate annual output differential approaching $900 billion in population-adjusted terms. The existing literature attributes this divergence to five principal factors: chronic underinvestment, resource dependence, the disproportionate prevalence of small firms, the innovation and R&D deficit, and weak competitive intensity. Each explanation is empirically grounded. None adequately accounts for the persistence of the gap across fifty years of radically different economic conditions, governments, and policy regimes, nor does the literature, taken collectively, identify the mechanism through which these factors are connected.

This paper advances a unifying diagnostic: Canada's productivity stagnation reflects a structural deployment problem: a sustained failure to organize and activate available productive capacity at the enterprise level in ways that compound into national economic advantage. The deployment framing reinterprets each conventional explanation not as an independent cause but as a symptom of the same underlying condition: Canada's enterprise environment does not sufficiently compel or support firms to convert available technology, capital, and talent into productive output at scale. This diagnostic is distinct from and extends beyond the existing literature, including the most recent long-run historical analysis of the productivity gap (Globerman, 2025; Sargent, 2024), by locating the mechanism of underperformance at the enterprise-ecosystem level rather than at the level of individual inputs.

To establish the empirical foundation for this argument, the paper assembles an annual dataset tracing the Canada–U.S. GDP per capita gap from 1973 to 2024 using World Bank World Development Indicators retrieved via the Federal Reserve Bank of St. Louis FRED database (World Bank, 2025a, 2025b, 2025c). It draws on the anchor finding of Gu & Lesica (2025), that the greater prevalence and weaker performance of small firms accounts for approximately 60 percent of the Canada–U.S. labour productivity gap since 2000, and on current Statistics Canada and BDC evidence demonstrating that AI-deploying Canadian SMEs are already 24 percent more productive than non-adopters within Canada's own business population (BDC, 2026a, 2026b).

The paper's policy argument follows from the diagnostic: effective response to Canada's productivity gap requires shifting from input-management frameworks, more tax credits, more financing, more R&D incentives, toward deployment-capacity frameworks that build the organizational, competitive, and ecosystem conditions under which Canadian enterprise converts available resources into productive output. Five specific policy implications are advanced. This paper is the first in a research series examining Canada's productivity challenge and the entrepreneurial, technological, and policy conditions necessary to reverse it.

Keywords: *labour productivity, Canada–United States productivity gap, structural deployment problem, SME deployment, AI adoption, enterprise productivity, economic competitiveness, productivity policy*

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1. Introduction

Canada's labour productivity growth has slowed markedly over the past five decades. Output per hour worked, the most direct measure of an economy's capacity to generate sustainable income and wealth, grew at an average annual rate of approximately 4.0 percent between 1947 and 1973. Since 1973, that rate has fallen persistently, averaging less than 1.1 percent annually and declining further in the years following the 2008 financial crisis. By 2023, Canada's labour productivity level stood at roughly 72 percent of the United States, a gap that has widened continuously since the early 1980s and that the OECD has identified as one of the most persistent structural divergences among peer economies in the developed world (Globerman, 2025; OECD, 2025a; Sharpe & Sargent, 2023; Statistics Canada, 2009). The consequences extend well beyond aggregate output statistics: the gap translates directly into lower real wages, reduced business investment, constrained fiscal capacity, and a diminishing ability to attract and retain the capital and talent necessary for long-term national competitiveness.

The Canadian productivity literature has identified the proximate causes of this divergence with considerable precision. Chronic underinvestment in machinery, equipment, and intangible capital (Robson & Bafale, 2025, 2026); the disproportionate prevalence and underperformance of small firms, shown by Gu & Lesica (2025) to account for approximately 60 percent of the Canada–U.S. productivity gap since 2000; a persistent innovation and R&D deficit relative to peer economies (OECD, 2025a; ITIF, 2024); structural resource dependence (Shakeri et al., 2012); and weak competitive intensity in key sectors (Gu & Willox, 2023), each has been identified, studied, and to varying degrees addressed by policy. The most recent long-run historical analyses confirm the scale and persistence of the divergence: Globerman (2025) documents that from 1981 to 2024, labour productivity grew 127 percent in the United States but only 61 percent in Canada; Sargent (2024) finds that Canadian business productivity declined 0.6 percent from 2018 to 2023 while the United States recorded a 10.1 percent increase. What the literature does not provide is a satisfactory account of why these conditions have persisted across five decades and multiple policy regimes that directly targeted each of them in turn. Individual explanations identify symptoms. No unifying framework has identified the mechanism through which they are connected, or explained why addressing symptoms has not resolved the underlying condition.

This paper proposes such a framework. It argues that Canada's productivity stagnation reflects a structural deployment problem: a sustained failure to organize and activate available productive capacity at the enterprise level in ways that compound into durable national economic advantage. The deployment framing is not a replacement for the conventional explanations, it is an interpretation of them. Underinvestment, the small firm problem, the innovation deficit, and weak competitive intensity are each reinterpreted as expressions of the same underlying condition: an enterprise environment that does not sufficiently compel or support firms to convert available technology, capital, and talent into productive output at scale. This diagnostic extends the existing literature by locating the mechanism of underperformance not at the level of individual inputs but at the level of enterprise-ecosystem conditions. The most direct current evidence for this framing is the AI deployment gap: only 12 percent of Canadian businesses have formally integrated AI into their operations, while AI-deploying SMEs are already 24 percent more productive than non-adopters within Canada's own business population (Statistics Canada, 2025b; BDC, 2026a). The productivity premium is not waiting for technology that does not exist. It is waiting for deployment that has not yet occurred.

This paper examines the fifty-year trajectory of Canadian productivity from 1973 to 2024. Section 2 establishes the measurement framework. Sections 3 and 4 document the historical record and the Canada–U.S. gap using an original annual dataset constructed from World Bank World Development Indicators. Section 5 surveys and critically assesses the five principal explanations advanced in the literature. Section 6 develops the structural deployment problem as a unifying diagnostic framework and presents current evidence for the deployment gap within Canada's business population. Section 7 derives five policy implications from the deployment diagnosis. Section 8 concludes by framing the decade from 2025 to 2035 as the window within which Canada's response will materially determine its long-run economic trajectory.

This paper is intended for policymakers, policy researchers, and institutional analysts engaged with questions of Canadian productivity, enterprise development, and economic competitiveness. Its argument is diagnostic before it is prescriptive: the policy implications in Section 7 are intended not as a comprehensive reform agenda but as a reorientation of existing instruments around a more coherent analytical framework that prioritizes deployment capacity over input availability. This paper is the first in a research series on Canada's productivity challenge; subsequent papers address entrepreneurship as national economic infrastructure, AI-powered SME deployment, and a national productivity renewal framework for Canada.

2. Defining Productivity: Scope and Measurement

Productivity measures the efficiency with which an economy converts inputs into outputs. In its most widely used form: labour productivity, it is expressed as the value of goods and services produced per hour worked. This metric captures the capacity of workers, firms, and economies to generate output from a given unit of labour input, and serves as the most direct observable indicator of an economy's ability to sustain rising living standards over time (Statistics Canada, 2009).

A second measure, total factor productivity (TFP), attempts to capture the efficiency with which all inputs, labour, capital, and intermediate goods, are combined in the production process. TFP is often interpreted as a proxy for technological progress, organizational improvement, and innovation. Because it isolates the contribution of efficiency gains beyond what can be explained by input accumulation alone, TFP is theoretically richer than labour productivity as a measure of structural economic performance (Statistics Canada, 2009).

This paper uses labour productivity: output per hour worked, as its primary analytical lens for three reasons. First, labour productivity data for Canada is available on a consistent, long-run basis through Statistics Canada's Multifactor Productivity Program and the OECD's Compendium of Productivity Indicators, enabling reliable trend analysis across the full fifty-year period under examination. Second, labour productivity is the measure most directly connected to real wages and living standards, the economic outcomes most consequential for Canadian households and policymakers. Third, the Canada–U.S. productivity comparison that forms the analytical core of this paper is most robustly supported in the labour productivity literature, including the anchor empirical work of Gu & Lesica (2025).

Where total factor productivity data illuminates specific sectoral or structural dynamics, it is introduced supplementarily. The primary analytical thread, however, remains labour productivity throughout.

3. The Historical Record: 1973–2023

3.1 The Postwar Baseline

To understand the scale of Canada's productivity decline, it is necessary to establish what came before it. The three decades following the Second World War represented an exceptional period of productivity growth for the Canadian economy. From 1947 to 1973, business sector output per hour in Canada grew at an average annual rate of approximately 4.0 percent, a pace that exceeded the United States, where the comparable rate was approximately 3.0 percent over the same period (Sharpe & Sargent, 2023; Bank of Canada, 2025). Over the full period from 1981 to 2024, labour productivity grew 127 percent in the United States compared with only 61 percent in Canada, a divergence that widened most sharply after 2001 and again after 2017 (Globerman, 2025). This era of broadly shared productivity growth underwrote the expansion of the Canadian middle class, the development of the country's public infrastructure, and the construction of the social programs that remain central to Canada's national identity.

The year 1973 marks a structural inflection point. The first OPEC oil price shock disrupted energy-intensive production systems, exposed structural inefficiencies in Western industrial economies, and ended what economic historians have characterized as the postwar golden age of productivity growth. For Canada, however, what followed was not merely a cyclical slowdown. It was the beginning of a persistent structural decline that would outlast the energy crisis by decades (Sharpe & Sargent, 2023).

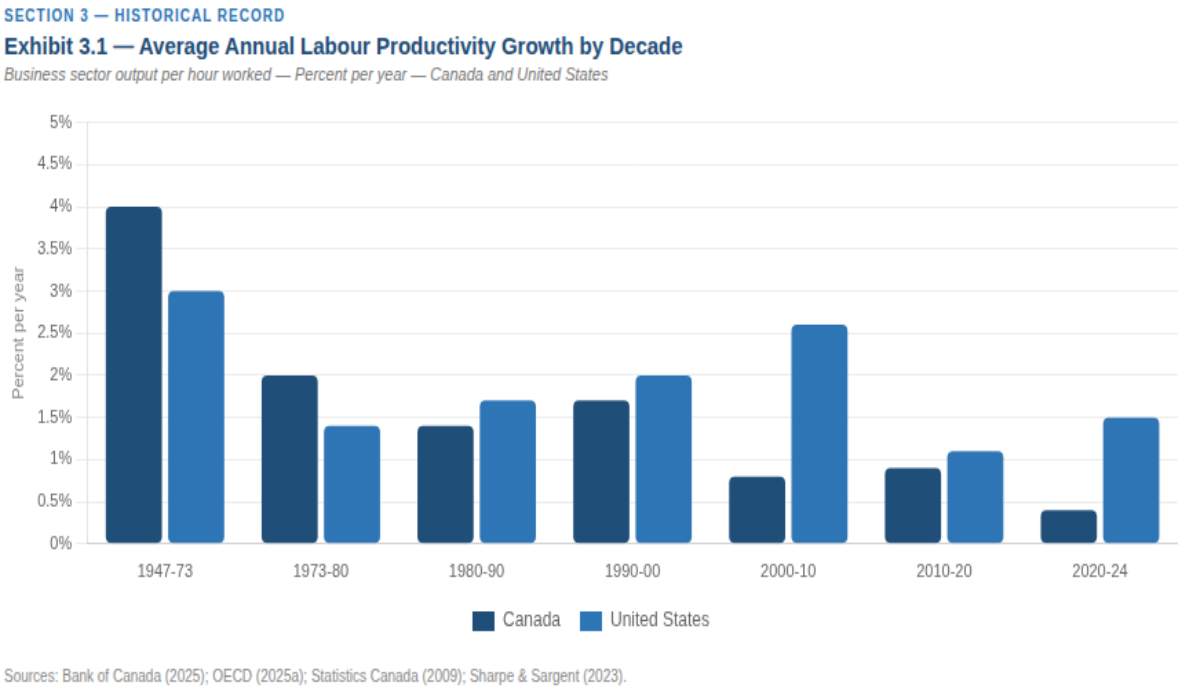
3.2 The Decades of Decline: 1973–2000

Between 1973 and 2000, Canada's labour productivity growth averaged 1.3 percent annually, already one of the lowest rates among advanced economies over that period, and far below peer nations such as Japan at 3.2 percent, France at 2.6 percent, and Germany at 2.5 percent (OECD, 2025a; Sharpe & Sargent, 2023). Even relative to the United States, where the comparable rate was approximately 1.5 percent, Canada's performance was weaker.

Within this period, the deterioration followed a clear downward trajectory. GDP growth in the Canadian business sector averaged 5.6 percent annually during the 1960s and early 1970s, before slowing to 4.0 percent in the 1970s, 3.3 percent in the 1980s, and 3.0 percent in the 1990s (Statistics Canada, 2009). Labour productivity growth followed a parallel path, with multifactor productivity growth deteriorating sharply after 1973 and recovering only modestly through the 1980s and 1990s.

The 1990s offered a partial reprieve. The adoption of information and communications technology, combined with structural adjustments following the 1991 recession and the implementation of the Canada–U.S. Free Trade Agreement, produced a modest productivity acceleration in the latter half of the decade. This improvement, however, was insufficient to close the gap that had opened with the United States and did not reflect a durable change in Canada's underlying productivity trajectory (Statistics Canada, 2009; Sharpe & Sargent, 2023).

Exhibit 3.1, Average Annual Labour Productivity Growth by Decade



Sources: Bank of Canada (2025); OECD (2025a); Statistics Canada (2009); Sharpe & Sargent (2023). Canada outpaced the U.S. in the postwar golden era. The 2000–10 divergence, Canada 0.8% versus U.S. 2.6%, is the most consequential single decade in the productivity story.

3.3 Acceleration of Divergence: 2000–2015

The period from 2000 onward represents a critical intensification of Canada's productivity challenge. Unlike the United States, where productivity continued to grow at around its pre-2000 rate, Canada's productivity growth declined between 2000 and 2023, averaging 0.8 percent annually (OECD, 2025a). The divergence between the two economies, which had been present but manageable through the 1990s, widened sharply in this period.

Canada's GDP per capita, which had reached 94 percent of the U.S. level in 1981, fell to 78 percent by 2023, a deterioration that unfolded steadily across more than four decades and accelerated after 2015 (McKinsey & Company, 2025). For much of the 2000s, this decline was obscured by the commodity boom. Rising oil and resource prices generated strong terms-of-trade gains that temporarily boosted Canadian incomes without corresponding improvements in underlying productivity. When oil prices collapsed in 2014–15, the gap became more apparent, revealing that the commodity boom had masked longstanding structural weaknesses (OECD, 2025a).

Weaker productivity in the information and communications technology sector was a significant contributor, accounting for an average of approximately 0.3 percentage points per year of the 0.92 percentage point difference in average business productivity growth between Canada and the United States over the 2001–2019 period (Gu & Willox, 2023).

3.4 The Recent Record: 2015–2023

The years from 2015 to 2023 confirm that Canada's productivity challenge is structural rather than cyclical. Canada's labour productivity, measured as GDP per hour worked, has been broadly flat,

contributing to a drop in Canada's productivity rank within the OECD from a top ten position in the early 1980s to the mid-teens by 2022 (McKinsey & Company, 2025). Sargent (2024) documents that Canadian business productivity declined 0.6 percent from 2018 to 2023, a period during which the United States recorded a 10.1 percent increase. Real GDP per capita fell 1.3 percent in 2023 and 1.4 percent in 2024, leaving Canada near the bottom of the G7 on a per-person basis. Business investment has been so weak since 2015 that capital per member of the workforce is falling, and in 2025, Canadian workers were projected to receive only 55 cents of new capital for every dollar received by their U.S. counterparts (Robson & Bafale, 2026).

By 2022, Canada's total economy labour productivity stood at approximately $53.3 per hour in USD purchasing power parity terms, on par with the OECD average of $53.4, but representing just 72 percent of the U.S. level of $74.0 per hour (CSLS, 2023).

3.5 Summary of the Historical Arc

Taken together, the fifty-year record from 1973 to 2023 describes a clear and consistent pattern: a structural deceleration in productivity growth that began with the energy shocks of the 1970s, persisted through subsequent decades despite periodic partial recoveries, was temporarily obscured by commodity-driven income gains in the 2000s, and has re-emerged in the post-2015 period as a defining constraint on Canadian living standards and national competitiveness. The decline is not the product of any single policy failure or economic cycle. It reflects accumulated structural conditions, in how Canadian firms are organized, how they invest, and how they adopt and deploy productive technology, that compound over time into a material and widening gap with Canada's primary economic comparator.

4. The Canada–United States Productivity Gap

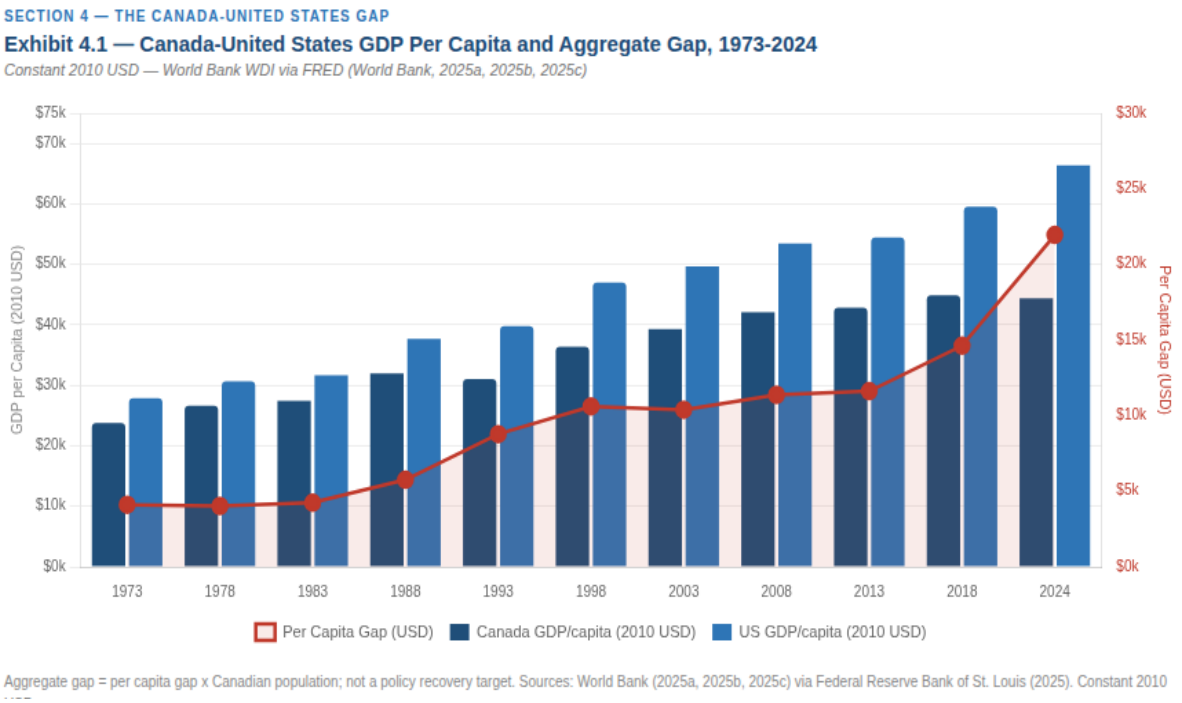
4.1 The Nature of the Comparison

The Canada–United States productivity gap is not merely a technical benchmark. It is the most consequential measure of Canada's long-term economic trajectory and the most direct indicator of what productivity stagnation means in practical terms for Canadian households, businesses, and governments. The two economies share geography, institutional heritage, deeply integrated supply chains, and the same primary labour and capital markets. They compete for investment, talent, and commercial activity within a continental economic framework. That proximity makes the comparison analytically precise and the divergence economically significant in ways that a comparison with more distant economies would not capture (McKinsey & Company, 2025; OECD, 2025a).

4.2 The Scale of the Gap

The productivity gap between Canada and the United States has widened persistently since the early 1980s and has accelerated in the period since 2000. By 2022, Canada's total economy labour productivity stood at approximately $53.3 per hour in USD purchasing power parity terms, representing just 72 percent of the U.S. level of $74.0 per hour (CSLS, 2023). Canada's GDP per capita reached only 78 percent of the U.S. level in 2023 (McKinsey & Company, 2025). In 2024, Canada's GDP per capita stood at approximately $44,400 in purchasing power parity terms, compared with $66,300 for the United States, a gap of roughly 33 percent (Frontier Centre for Public Policy, 2026).

Exhibit 4.1, Canada–United States GDP Per Capita & Aggregate Gap, 1973–2024

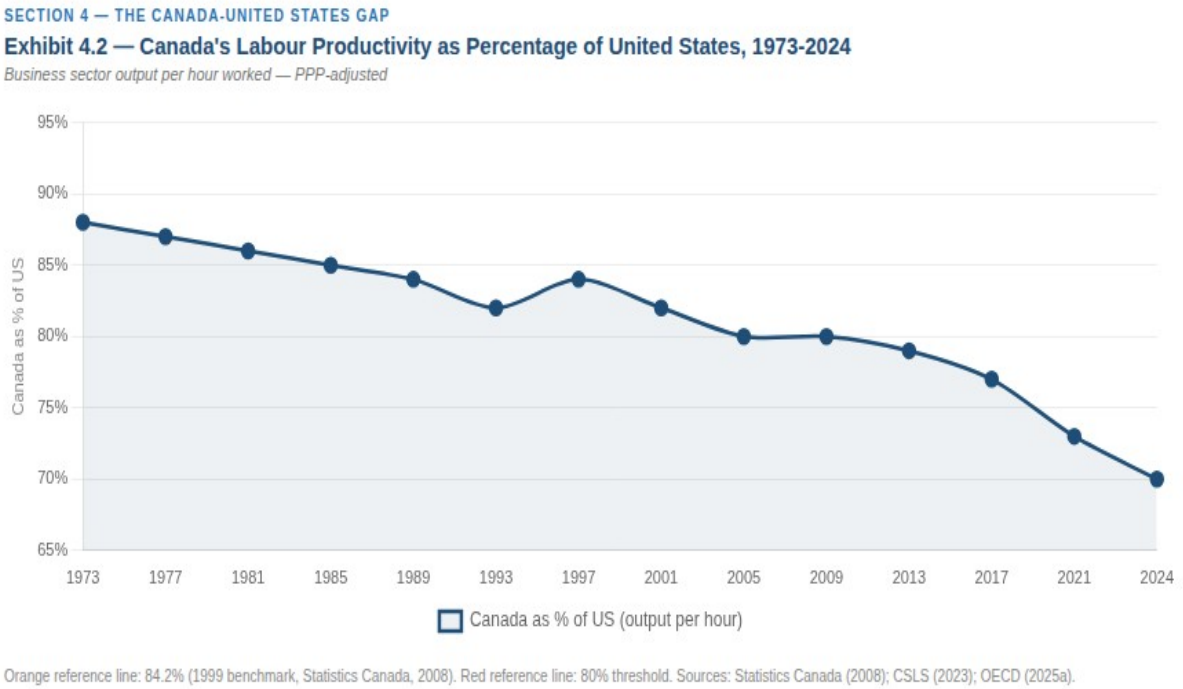


Sources: World Bank (2025a, 2025b, 2025c) via Federal Reserve Bank of St. Louis (2025). Constant 2010 USD. Aggregate gap = per capita gap × Canadian population; not a policy recovery target.

4.3 The Aggregate Gap: A Population-Adjusted Measure

To convey the human-scale significance of the per capita divergence, this paper constructs a population-adjusted aggregate gap measure using annual data from the World Bank World Development Indicators (World Bank, 2025a, 2025b, 2025c), retrieved via the Federal Reserve Bank of St. Louis FRED database (Federal Reserve Bank of St. Louis, 2025). All figures are expressed in constant 2010 United States dollars to remove exchange rate distortion and inflation effects. At the 1973 baseline, the per capita gap was approximately $4,106, yielding an aggregate gap of approximately $92 billion. By 2024, the per capita gap had grown to approximately $21,943, and Canada's population had reached 41.3 million, producing an aggregate gap exceeding $900 billion. This figure conveys the cumulative scale of the divergence in human-economic terms and is not a policy recovery target.

Exhibit 4.2, Canada's Labour Productivity as % of United States, 1973–2024



Sources: Statistics Canada (2008); CSLS (2023); OECD (2025a). Business sector output per hour, PPP-adjusted. The 1999 benchmark of 84.2% is the most rigorously established anchor point for this series.

4.4 The Consequences for Living Standards

The Canada–United States productivity gap translates directly into measurable differences in the material conditions of Canadian economic life. Canada's standard of living, as measured by real GDP per person, was lower in 2023 than in 2014 (TD Economics, 2024). Without improved productivity growth, workers will face stagnating wages and government revenues will not keep pace with spending commitments, requiring either higher taxes or reduced public services (TD Economics, 2024). In 2025, Canadian workers were projected to receive only 55 cents of new capital for every dollar received by their U.S. counterparts, and only 70 cents relative to the broader OECD average (Robson & Bafale, 2026).

4.5 The Long-Term Outlook

The OECD projects that Canada will rank last among all 38 OECD member countries in real GDP per capita growth through 2060 (TD Economics, 2024). The OECD's 2025 Economic Survey of Canada identifies low investment activity and low business research and development spending as key contributors to the productivity gap, and notes that most of Canada's low productivity growth can be attributed to weak productivity performance within sectors rather than to industry composition, suggesting that the problem is not what Canada produces, but how efficiently it produces it (OECD, 2025a).

4.6 What the Gap Reveals

The Canada–United States productivity gap has persisted across business cycles, commodity booms, exchange rate fluctuations, and successive changes in federal government. It has widened during periods of strong Canadian population and employment growth, demonstrating

that adding workers does not substitute for increasing the productivity of existing ones. A gap that widens consistently across four decades and multiple economic regimes points toward structural conditions embedded in how Canadian enterprise is organized, how it invests, and how it adopts and deploys productive technology (Globerman, 2025; McKinsey & Company, 2025). The following section examines the explanations that have been advanced for those conditions and what they collectively leave unresolved.

5. Why Canada's Productivity Has Stagnated: Examining the Conventional Explanations

Canada's productivity gap with the United States has attracted sustained attention from economists, policy analysts, and institutional researchers. This section examines the five most prominent explanations: underinvestment, resource dependence, the small firm problem, the innovation deficit, and weak competitive intensity, assessing the evidence for each and identifying what the explanations collectively leave unresolved. Each is reinterpreted in Section 6 not as an independent cause but as an expression of a single underlying condition: the structural deployment problem advanced as this paper's central diagnostic.

5.1 Underinvestment in Capital

The most frequently cited explanation for Canada's productivity gap is chronic underinvestment in the physical and technological capital that enables workers to produce more output per hour. In the 1990s, Canada generated $1.03 per worker for every dollar generated per worker in other OECD countries. By 2024, this figure had dropped to 93 cents, and to just 55 cents relative to U.S. workers specifically (Robson & Bafale, 2026). Low investment has contributed directly to productivity slowdowns in the ICT and manufacturing sectors and has been a key driver of the growing gap with the United States (OECD, 2025a). Exhibit 5.1 illustrates the trajectory of Canada's capital investment per worker relative to the United States and OECD average from 2000 to 2025.

Exhibit 5.1, Capital Investment per Worker: Canada vs. U.S. (Indexed, US = 100¢), 2000–2025



Sources: Robson & Bafale (2025, 2026), C.D. Howe Institute; OECD Capital Services Database. By 2025, Canadian workers receive just 55 cents of new capital for every dollar received by U.S. workers.

5.2 Resource Dependence and the Structural Concentration Problem

Canada's economic geography has long been shaped by an abundance of natural resources. Research by Shakeri et al. (2012) finds evidence of a mild case of Dutch disease in Canada, particularly affecting small, labour-intensive manufacturing industries, while concluding that Canada's waning competitiveness rather than the exchange rate is the principal cause of manufacturing weakness. The OECD's (2025a) Economic Survey finds that the resource sector accounts for only approximately 0.06 percentage points annually of the post-2000 productivity gap with the United States. Resource dependence shaped Canada's structural vulnerabilities, but it does not account for the breadth or persistence of the productivity problem.

5.3 The Small Firm Problem

The most empirically precise explanation for Canada's productivity gap is the structure and performance of its business population. Research by Gu & Lesica (2025) identifies the greater prevalence and weaker performance of small firms as accounting for approximately 60 percent of the Canada–U.S. labour productivity gap since 2000. This finding shifts the focus of the productivity debate from aggregate input variables toward the structural characteristics of Canadian enterprise itself. Large employers, those with more than 500 employees, account for approximately 35 percent of employment in Canada, compared with nearly 50 percent in the United States (OECD, 2025a). Academic research identifies a range of explanations for the disproportionate concentration of small firms in Canada, including differences in competitive intensity, barriers to entry and exit, and innovation spending (Parsons & Songsa, 2017).

5.4 The Innovation and R&D Deficit

Canada consistently underperforms peer economies on measures of business research and development investment, patent activity, and the commercialization of technology. As of 2023, Canada's gross domestic expenditure on R&D as a percentage of GDP was approximately 1.8 percent, far below the OECD average of 2.7 percent and leaders such as the United States at 3.3 percent and Korea at 4.9 percent (OECD, 2025a). Weaker productivity in the ICT sector accounted for an average of approximately 0.3 percentage points per year of the 0.92 percentage point difference in average business productivity growth between Canada and the United States over the 2001–2019 period (Gu & Willox, 2023). Canada produces significant numbers of technology graduates and maintains strong university research capacity, but the commercialization pathway from research investment to enterprise-level productivity gain is demonstrably weaker than in the United States (ITIF, 2024).

5.5 Weak Competitive Intensity and Regulatory Burden

Key sectors including energy, financial services, and telecommunications have faced restrictive regulations in Canada that have reduced innovation, competition, and investment across the economy (Robson & Bafale, 2026). The OECD's Product Market Regulation index placed Canada at 1.38 in 2023, still lagging behind top performers at 0.67 (Robson & Bafale, 2026). Research identifies differences in competitive intensity, particularly in telecommunications, as a key contributor to the Canada–U.S. productivity divergence (Gu & Willox, 2023).

5.6 What the Conventional Explanations Leave Unresolved

Taken together, the conventional explanations describe the symptom set accurately: Canada underinvests, its firms are too small and too numerous, it commercializes research poorly, and its key sectors face insufficient competitive pressure. What the conventional literature does not adequately address is the mechanism connecting these conditions. The OECD (2025a) concludes that most of Canada's low productivity growth can be attributed to weak productivity performance within sectors rather than to industry composition, suggesting that the problem is not what Canada produces, but how efficiently and ambitiously it produces it. That distinction is the analytical foundation for the argument that follows.

Before advancing that argument, intellectual honesty requires acknowledging what the conventional explanations do not fully resolve. A portion of Canada's productivity gap with the United States reflects structural conditions that are partially independent of enterprise behaviour: a more resource-intensive sector mix that historically generated income without equivalent productivity growth; a smaller continental market that limits the scale at which Canadian firms can operate domestically; geographic and demographic factors that raise the cost of service delivery and infrastructure per capita; and an asymmetric continental investment climate in which U.S. firms have historically offered higher expected returns to mobile capital. These structural conditions are real and cannot be fully addressed by deployment-oriented policy alone. The argument of this paper is not that deployment explains everything, but that it explains the persistence of the gap across policy regimes that have addressed the structural inputs — and that it therefore represents the most productive analytical frame for the next phase of Canadian productivity policy.

6. The Structural Deployment Problem: Canada's Productivity Challenge Reconsidered

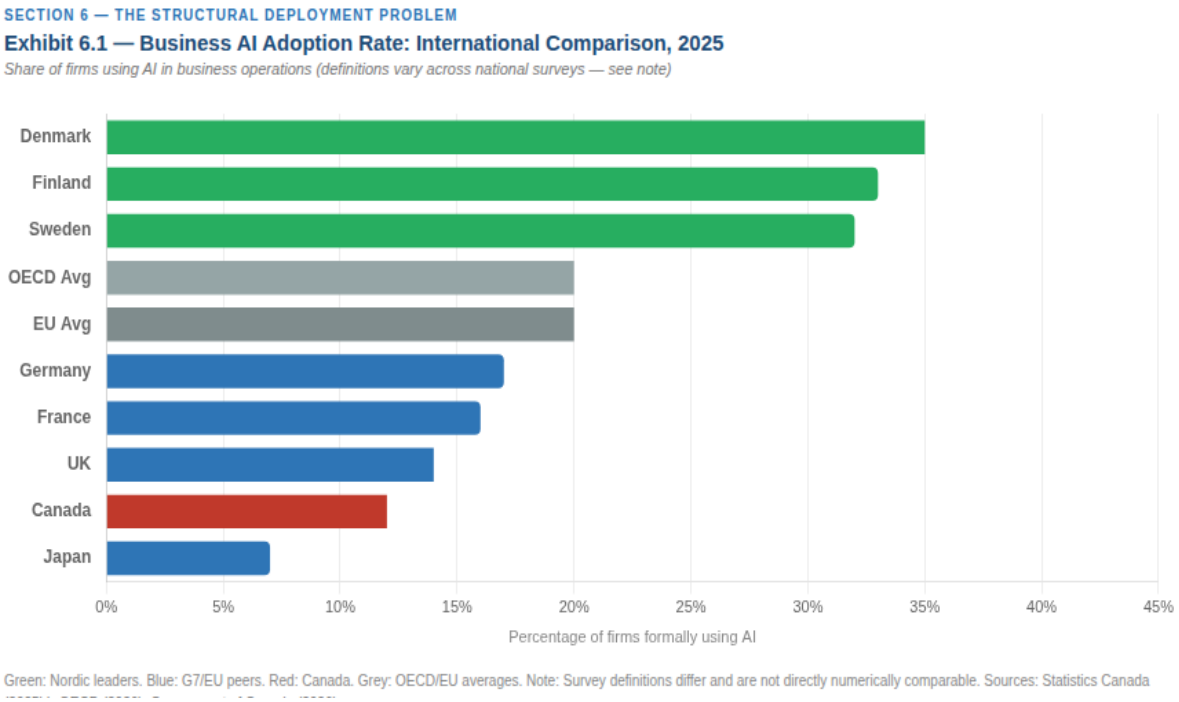
6.1 Reframing the Diagnosis

The five explanations examined in the preceding section each illuminate a genuine dimension of Canada's productivity challenge. What they do not collectively explain is why these conditions have persisted for five decades across radically different economic environments, governments, and policy regimes. This paper argues that the persistence of Canada's productivity gap reflects a structural deployment problem. Canada does not lack productive resources, technological access, educated workers, or institutional capacity. What Canada has systematically failed to do is organize and activate those resources at the enterprise level in ways that compound into durable national economic advantage.

6.2 The Availability-Deployment Gap

The most direct evidence for a structural deployment problem is the persistent distance between what Canadian firms have access to and what they actually put to productive use. Statistics Canada (2025b) reports that only 12.2 percent of Canadian businesses used AI to produce goods or services in 2025, and critically, 78 percent of non-adopting firms report that they do not see how AI benefits the goods or services they provide (Government of Canada, 2026). This is not a failure of technological availability. It is a failure of deployment: of the organizational capacity, managerial capability, and enterprise architecture required to translate available technology into operational productivity gain. BDC's (2026a) research confirms the deployment premium directly: Canadian SMEs that adopted AI in 2025 were 24 percent more productive than those that did not, and BDC (2026b) projects that overall SME productivity could rise by up to 38 percent if businesses across the country reached a high level of digital maturity.

Exhibit 6.1, Business AI Adoption Rate: International Comparison, 2025



⚠️ *Comparability note: Survey definitions differ materially across national statistical systems. Figures are indicative of relative positioning only and are not directly numerically comparable. Sources: Statistics Canada (2025b); OECD (2026); Government of Canada (2026).*

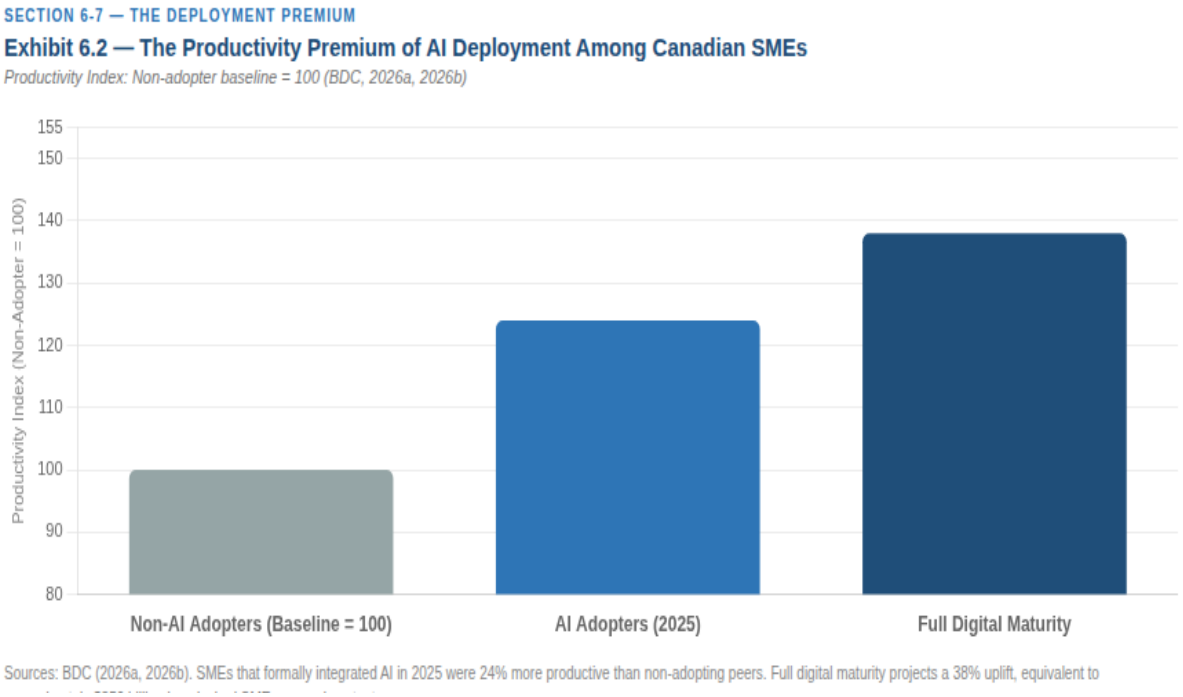
6.3 The Firm Scale and Ambition Problem

The structural deployment problem is reinforced by the characteristics of Canada's enterprise population. Large employers, those with more than 500 employees, account for approximately 35 percent of employment in Canada, compared with nearly 50 percent in the United States. McKinsey & Company (2025) frames the allocation problem precisely: Canada's productivity slowdown stems from years of investment drifting into lower-productivity, domestically oriented sectors and missed opportunities to scale exports in resources, services, and advanced industries, with investment driving 80 percent of productivity growth.

6.4 The Experimentation-to-Deployment Gap

While nearly half of Canadian SME owners have experimented with generative AI tools, only one in eight Canadian businesses has formally integrated AI into its operations (Government of Canada, 2026). The Canadian Chamber of Commerce (2026) identifies the nature of the barriers precisely: in 2024, a third of Canadian businesses reported access to finance as a challenge preventing technology adoption; 35 percent cited hiring skilled employees; and 28 percent cited retraining employees with new technology skills. These are barriers of organizational capacity, not access or awareness. Exhibit 6.2 illustrates the productivity premium already observable between Canadian AI adopters and non-adopters.

Exhibit 6.2, The Productivity Premium of AI Deployment Among Canadian SMEs (Index: Non-Adopter = 100)



Sources: BDC (2026a, 2026b). SMEs that formally integrated AI in 2025 were 24% more productive than non-adopting peers. Full digital maturity projects a 38% uplift, equivalent to approximately $350 billion in unlocked SME economic output.

6.5 The Deployment Imperative: Why This Matters Now

The OECD projects that if Canada reaches a medium-paced AI adoption scenario, approximately 50 percent of businesses adopting AI by 2034: labour productivity is expected to increase by 9 percent over the following decade. To contextualize: Canadian productivity increased by only 4.8 percent in total over the decade from 2015 to 2024 (BDC, 2025). The Government of Canada's (2026) national AI strategy, AI for All, launched in June 2026, explicitly frames Canada's challenge as a deployment problem rather than an invention problem, acknowledging that only 12 percent of Canadian businesses have formally integrated AI while deploying $500 million through BDC's LIFT program to help Canadian SMEs incorporate AI tools in their operations.

6.6 The Deployment Problem as Unifying Framework

The structural deployment problem provides a unifying framework for the conventional explanations reviewed in Section 5. Underinvestment is the financial expression of a deployment failure. The small firm problem is the structural expression. The innovation deficit is the R&D expression. Weak competitive intensity is the environmental expression. Each conventional explanation identifies a real symptom. The deployment framework identifies the underlying condition that connects them. Canada's labour productivity stands approximately 30 percent below that of the United States. Median wages in Canada trail U.S. levels by approximately $7 per hour even after purchasing power parity adjustments (McKinsey & Company, 2025). These are not the outcomes of resource scarcity or technological backwardness. They are the outcomes of a sustained failure to translate available productive capacity into enterprise-level performance at the scale the national economy requires.

7. What This Means: Implications for Policy and Practice

7.1 The Policy Framing Shift Required

The structural deployment problem identified in the preceding section points toward a set of policy priorities that deserve sustained attention. These implications are offered as directional hypotheses suggested by the diagnostic framework, not as a fully specified reform agenda — detailed implementation sequencing, cost analysis, and institutional design are developed in the subsequent papers in this research series. What the deployment diagnosis does clearly establish is that the dominant policy paradigm of the past two decades, focused primarily on inputs such as investment tax credits, R&D incentives, and capital per worker, addresses the symptoms of the deployment problem without engaging its underlying architecture. A deployment-oriented policy framework shifts the focus from what Canadian firms have access to toward how they use it. Existing federal infrastructure provides the starting point for this reorientation. Whether that infrastructure is sufficient, which programs require retooling, and what success metrics should govern program evaluation are questions the evidence does not yet fully resolve and that subsequent analysis must address.

7.2 Implication 1, Reorient Enterprise Support Toward Deployment Capacity

The Canada Small Business Financing Program averaged $1.3 billion per year in indirect financing over 2021 to 2023 (OECD, 2025a). However, access to financing alone does not resolve the deployment gap. A third of Canadian businesses in 2024 reported access to finance as a challenge preventing technology adoption, but the same data identified hiring skilled employees and retraining workers with new technology skills as equally prevalent barriers (Canadian Chamber of Commerce, 2026). BDC's (2026a) LIFT initiative, a $500 million program linking

capital to structured AI adoption pathways, represents a more integrated model. The policy implication is to expand and deepen this deployment-integrated model across the enterprise support ecosystem.

7.3 Implication 2, Accelerate the Internal Market

Canada's fragmented internal market is a structural impediment to the firm scale that enables productive technology deployment. Removing policy-relevant internal barriers to trade in goods alone would raise Canada's GDP by as much as 4 percent, equivalent to approximately $120 billion in output or up to $2,900 per person at 2025 population levels (C.D. Howe Institute, 2025). Internal trade reform is therefore not merely a competitiveness measure, it is a deployment enabler of the first order.

7.4 Implication 3, Strengthen Competitive Intensity in Key Sectors

The OECD (2025a) identifies weak competitive pressures, particularly low exposure of many SMEs to international competition, as a key reason firms do not adopt new technologies. Firms that report facing increased competition are significantly more likely to introduce new technologies (OECD, 2025a). Regulatory reform in concentrated sectors, particularly telecommunications, would both reduce costs for Canadian businesses and intensify the competitive pressure that drives technology deployment. Existing instruments under the Competition Act and the Competition Bureau's (2025) ongoing market study provide the institutional vehicle for this work without requiring new legislative architecture.

7.5 Implication 4, Align the Innovation Pipeline with Commercialization

Canadian companies frequently transfer the patents for their inventions to foreign companies, generating research value that is then commercialized elsewhere (Canadian Chamber of Commerce, 2024). The federal government's (Government of Canada, 2025) 2025 budget introduced expanded SR&ED tax credit provisions, the ElevateIP and Patent Collective programs, and amendments to the Red Tape Reduction Act, collectively representing a policy shift toward connecting innovation investment to commercialization outcomes. The deployment framework argues for a structured pathway between research commercialization and enterprise-level operational deployment, closing the gap between patented technology and productive use by Canadian firms at scale.

7.6 Implication 5, Build Ecosystem Infrastructure for Deployment at Scale

Canada's Productivity Initiative, launched in fall 2024 at a national summit in Calgary, engaged leading thinkers in business, government, and academia throughout 2025 and 2026 to develop actionable recommendations for policymakers (University of Calgary School of Public Policy, 2026). The G7 (2025) Leaders' commitment at Kananaskis to support SMEs in adopting AI recognized explicitly that adoption of AI by SMEs is a cornerstone of efforts to realize its economic potential, and that this requires ecosystem-level action rather than firm-level intervention alone. Regional Development Agencies, existing innovation clusters, and programs such as the Regional Artificial Intelligence Initiative already provide partial infrastructure for this approach.

6.7 A Note on Scope and Causal Claims

The deployment problem is advanced in this paper as an interpretive lens consistent with the available evidence, not as a fully specified causal theory. The evidence assembled here supports a deployment-centered interpretation of Canada's productivity gap with moderate confidence: the

AI adoption data, the complementary capabilities research, and the gap between Canada's resource commitments and its enterprise-level output are all consistent with the deployment diagnosis. What the evidence does not yet establish is that the deployment problem has unique explanatory power that cannot be reduced to the conventional explanations described in Section 5. That question, which requires formal causal modelling and firm-level longitudinal data, is beyond the scope of a diagnostic paper and is addressed in the subsequent papers in this research series.

The most important piece of firm-level evidence bearing directly on this question is the work of Li & Liu (2026), published in Canadian Public Policy. Using a novel firm-level database linking Statistics Canada's Survey of Digital Technology and Internet Use to administrative business microdata, and applying difference-in-differences estimation, they find that AI adoption is closely tied to complementary capabilities including R&D investment, cloud computing, data analytics, advanced robotics, and ICT training — and that although AI adoption is positively correlated with higher productivity levels, there is no robust evidence that it translates into short-term productivity growth across all firms once pre-existing productivity and complementary technologies are controlled for (Li & Liu, 2026). This finding directly supports the deployment framework's emphasis on organizational and ecosystem capacity rather than adoption alone — and simultaneously cautions against expecting near-term productivity gains from AI deployment without the complementary infrastructure that enables firms to realize its potential. The full causal architecture connecting deployment capacity, complementary capabilities, firm scale, and national productivity outcomes is developed in Paper 2 of this research series.

8. Conclusion: The Urgency of a Deployment Decade

Canada's productivity problem is not new. Its contours have been visible for fifty years, in the data, in the literature, and in the policy debates that have accompanied every federal budget and every economic cycle since the early 1970s. What this paper has attempted to do is not to discover the problem but to diagnose it more precisely, and to reframe what resolving it actually requires.

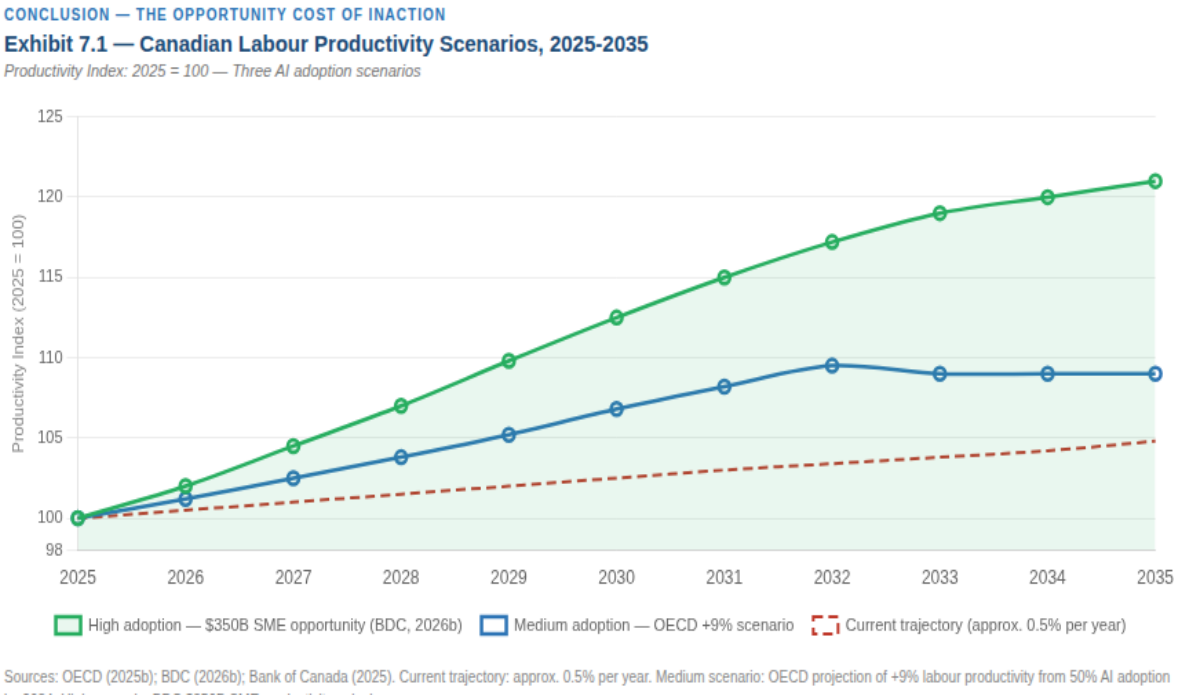
The historical record is unambiguous. In 1971, Canada's productivity was, on average, higher than that of its G7 peers. By the early 1980s, the situation had reversed, and over the subsequent five decades, Canada's productivity has deteriorated steadily relative to those same peers, with the divergence from the United States becoming the most consequential single measure of Canada's economic underperformance (Bank of Canada, 2025). The per capita data assembled in this paper traces the full arc of that deterioration: from a gap of approximately $4,106 per capita in constant 2010 USD at the 1973 inflection point, to approximately $21,943 by 2024, more than a fivefold increase in constant dollar terms. Applied to Canada's current population of 41.3 million, that gap represents an aggregate annual output differential approaching $900 billion.

The conventional explanations for this divergence each capture a genuine dimension of the challenge. This paper has argued, however, that they are better understood as symptoms of a more fundamental condition: a structural deployment problem. Canada does not lack the resources, technology, or educated workforce to be a more productive economy. What Canada has systematically failed to do is organize and activate those resources at the enterprise level in ways that compound over time into national economic advantage.

The urgency of this reframing has rarely been greater. BDC (2026b) estimates that Canadian SMEs could unlock nearly $350 billion in economic growth if more firms reached the digital and AI maturity of the country's top-performing SMEs, with digital maturity rather than mere adoption now identified as the primary barrier separating leading economies from the rest. The Bank of Canada

(2026) has characterized AI as a potential general-purpose technology with the transformative economic significance of electricity and the computer.

Exhibit 7.1, Canadian Labour Productivity Scenarios, 2025–2035 (Index: 2025 = 100)



Sources: OECD (2025b); BDC (2026b); Bank of Canada (2025). Current trajectory reflects ~0.5% p.a. growth. Medium scenario: OECD projection of +9% labour productivity from 50% AI adoption by 2034. High scenario: BDC modelling of $350B SME productivity unlock.

The OECD projects that AI adoption at scale could add 9 percent to Canadian labour productivity over ten years, roughly double the productivity growth achieved over the entire previous decade (OECD, 2025b; BDC, 2025). Whether Canada captures that potential is not a technological question. It is an enterprise question, an ecosystem question, and a policy question. It is a question about whether Canadian firms, supported by coherent national policy, can build the deployment capacity that transforms available technology into durable national prosperity.

That question is the subject of the research series that follows.

Summary of the Argument

Canada's productivity stagnation is structural, not cyclical. The fifty-year decline in productivity growth relative to the United States, from a position of relative strength in the postwar era to a gap representing nearly $900 billion in annual aggregate output, reflects a sustained failure to deploy productive capacity at the enterprise level. The conventional explanations identify symptoms. The deployment problem is the condition. Addressing it requires not new institutions but a coherent reorientation of existing policy infrastructure around enterprise capability, competitive intensity, internal market integration, and innovation commercialization. The decade ahead offers both the greatest productivity opportunity in a generation and the greatest risk of squandering it. Canada's response will determine the economic character of the country through 2035 and beyond.

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