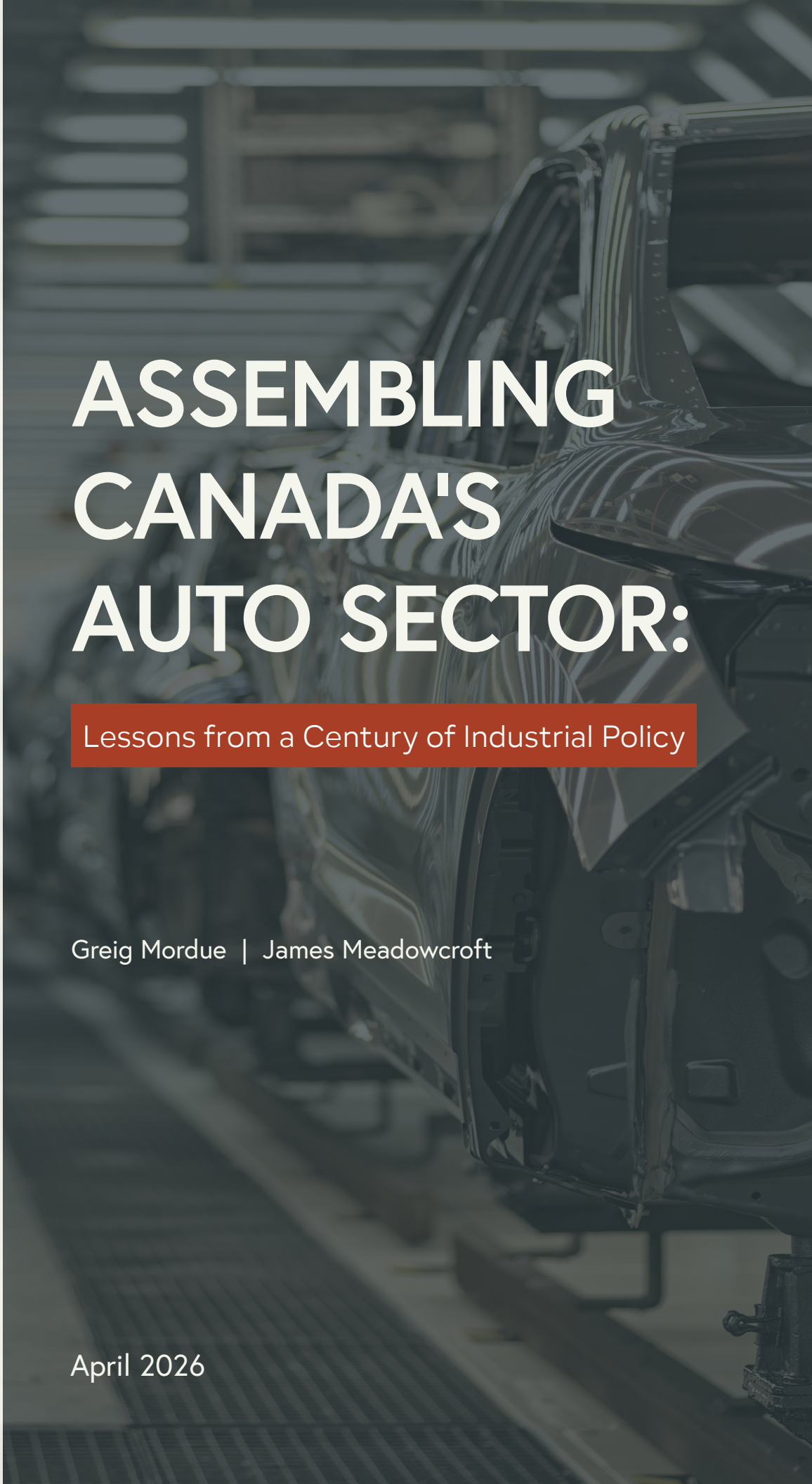
CENTRE FOR INDUSTRIAL POLICY



ASSEMBLING CANADA'S AUTO SECTOR:

Lessons from a Century of Industrial Policy

Greig Mordue | James Meadowcroft

An initiative of The Transition Accelerator

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Lessons from a Century of Industrial Policy

Authors

Greig Mordue, PhD
Associate Professor,
McMaster University

James Meadowcroft, PhD
Transition Pathway Principal,
The Transition Accelerator

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1. ASSEMBLING CANADA'S AUTO SECTOR: LESSONS FROM A CENTURY OF INDUSTRIAL POLICY

Canada's automotive industry stands at a critical juncture. Heightened global competition, rapid technological transformation, and the geographic reconfiguration of production networks are simultaneously challenging the country's established capabilities and revealing longstanding structural weaknesses. This report aims to inform practical industrial policy decisions by identifying the opportunities available to Canada and by highlighting the risks those strategies entail.

Our analytical focus centres on the strategic decision-making of global automotive lead firms, the automakers. This choice reflects well-established insight from global value chain scholarship: automakers occupy the apex of governance power within the industry. They determine model allocations, production locations, supplier selection, and the distribution of research and development (R&D) activities. Original Equipment Manufacturers (OEMs) thus shape the technological, geographical, and organizational configuration of the automotive sector. Their choices define, and often constrain, the scope of opportunity available to suppliers, workers, and regions.

Although Canada's parts sector is larger than its vehicle assembly footprint, the supplier base is fundamentally dependent on local assembly mandates. Roughly half of Canada's supplier activity is tied directly or indirectly to domestic production. Without Canadian assembly

operations, most of the supplier ecosystem would lack justification for remaining. The Australian experience underscores this dependency: following the closure of Holden, Ford, and Toyota in 2017, Australia's supplier base contracted sharply and, in many cases, disappeared entirely. Canada's structural position is similar.

> Canadian automotive industry is, at its core, a policy-constructed achievement.

For these reasons, an industrial policy assessment aimed at long-term competitiveness must begin with the OEMs and their vehicle production priorities. While suppliers, tooling firms, technology providers, and logistics operators are essential to the broader ecosystem, automakers function as system leaders whose investment, sourcing, and product allocation decisions condition the prospects of every other segment of the value chain. Focusing on OEM behaviour therefore provides an analytically coherent foundation for evaluating Canada's position and policy options.

We also emphasize that it is crucial not to conflate policies meant to shape the Canadian automotive market with those required to sustain automotive production, as domestic EV adoption goals bear little relation to the structural factors governing OEM allocation decisions. In short, what Canadians drive and what Canada builds are analytically distinct, and effective industrial policy must respect that distinction.

Building on the premise that automakers and assembly operations anchor the country's automotive ecosystem, this report devotes significant attention to the historical evolution of vehicle assembly in Canada and the policy instruments that shaped it. This emphasis reflects a central analytical point: the Canadian automotive industry is, at its core, a policy-constructed achievement. Since the late 19th century, when protective tariffs on carriages—later extended to automobiles—encouraged early assembly investment, the industry's trajectory has been inseparable from deliberate government intervention. Policies such as the Auto Pact, duty remission programs, and targeted investment attraction measures have repeatedly influenced the sector's scale, structure, and continental role.

Understanding this historical lineage clarifies which policy tools have been effective and why. Many instruments being reconsidered in 2026 have clear antecedents: targeted import restrictions, selective duty remission schemes designed to attract offshore producers, and assertive protectionist rhetoric all played significant roles in earlier eras. Examining the conditions under which these tools were deployed, and assessing their outcomes, provides valuable guidance for contemporary policymakers seeking to navigate the current period of profound industrial transition.

2. THE CRITICALITY OF MANUFACTURING, AUTOMOTIVE MANUFACTURING, AND INDUSTRIAL POLICY

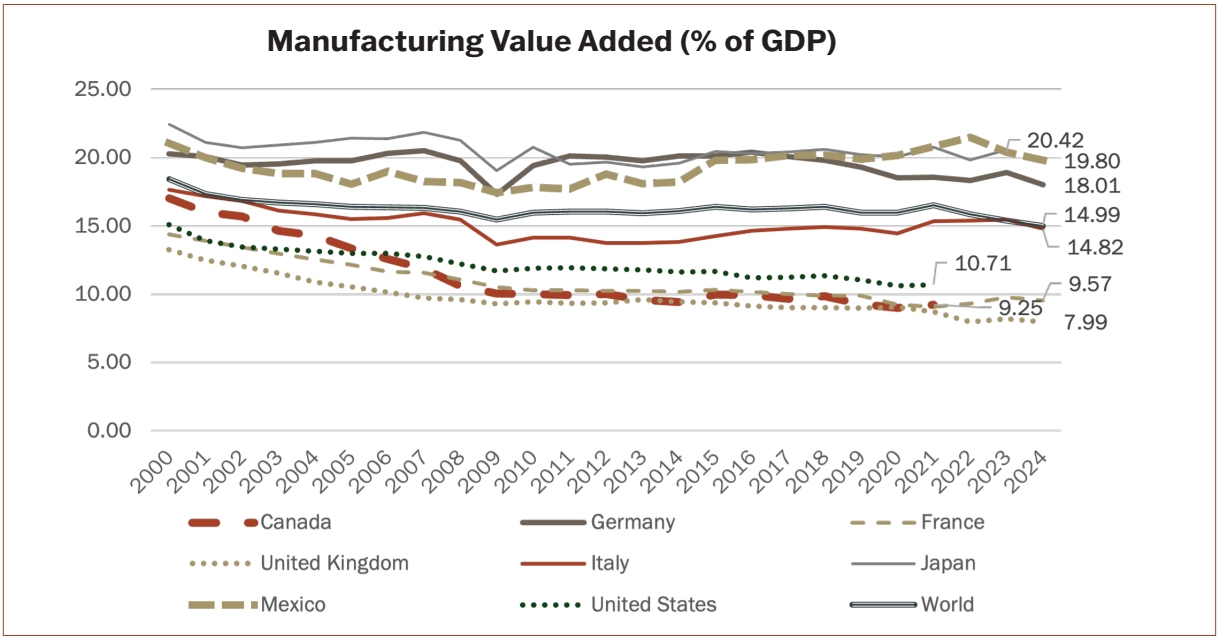
Why Manufacturing Still Matters

Manufacturing remains foundational to economic performance, underpinning productivity growth, innovation diffusion, and high-wage employment. In Canada, total manufacturing revenues were $931.2 billion[1] in 2024, and revenue from goods manufactured was $874.6 billion (Statistics Canada, 2025). The sector employed about 1.56 million people in 2024 and paid $109.4 billion in salaries (Statistics Canada, 2026). Finally, manufacturing accounts for roughly 42% of Canada's private-sector R&D (Innovation, Science and Economic Development Canada, 2026a).

As Figure 1 indicates, manufacturing's share of Canadian GDP is 9.25%, below Mexico (20.4%), Japan (19.8%), Germany (19%), and the global average (15%); closer to the United States (10.7%), France (9.6%), and the United Kingdom (8.0%) (World Bank, 2026a). The post-2000 period has seen a broad contraction in manufacturing's profile across most economies. Meanwhile, Canada's relative decline (–45.6%) exceeds the global average (–18.7%). It is also greater than reductions experienced in Germany, France, Italy, Japan, Mexico, and the United States (World Bank, 2026a).

1 All figures are in Canadian dollars unless otherwise noted.

Figure 1



***Source**: World Bank (2026a)*

Structural shifts of this nature have important labour-market consequences. Across advanced economies, workers in higher-wage industries, including many manufacturing occupations, earn about 13% more than similar workers in other sectors (Card, et al., 2024), though by comparison, in Canada, the premium has fallen to just 4.7% (Statistics Canada, 2025). Therefore, even though manufacturing still supports middle-income employment, its diminished footprint lessens the reach of those benefits (Card et al., 2024; Bayard et al., 2022; International Monetary Fund, 2018).

Why Automotive Manufacturing Matters More

Within manufacturing, automotive exhibits out-sized strategic significance due to its coordination of advanced engineering, dense supplier systems, and export intensity within regionalized production networks. In 2024, Canada's auto sector contributed $16.8 billion to GDP, provided 125,000 direct jobs, and supported 427,000 additional positions across supply and service networks, making it one of the country's most integrated manufacturing ecosystems (Innovation, Science and Economic Development, 2026b). Vehicle assembly by Ford, General Motors, Stellantis, Toyota, and Honda anchors a robust supplier base, including three of the global top-100 suppliers by revenue (Automotive News, 2025).

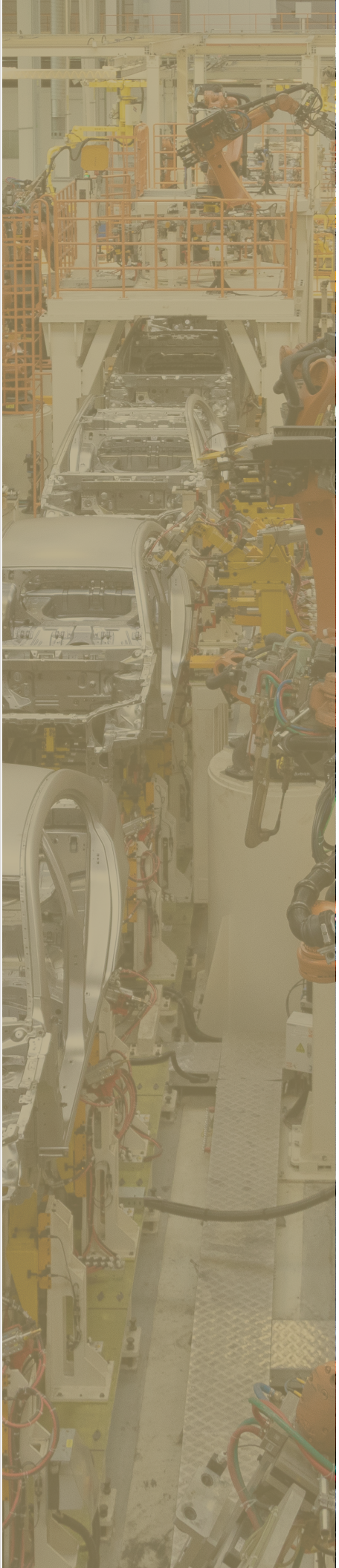
Global value-chain research explains the sector's amplified effects: governance by lead firms, reliance on tacit and iterative engineering knowledge, and regionalized supply chains with strong local-content dynamics favour locations with skilled labour, reliable institutions, and deep supplier capabilities (Sturgeon, Van Biesebroeck, & Gereffi, 2008). Such agglomerations are path dependent and difficult to replicate. Conversely, the loss of anchor investments (assembly plants) can unravel interdependencies.

Industrial Policy's Renewal and its Strategic Importance in Automotive

Industrial policy—targeted state measures to bolster sectoral competitiveness—has reentered the mainstream (World Economic Forum, 2024; Bailey et al., 2019; Irwin, 2023; Schneider, 2023). When designed with clear conditionality, limited scope, and complementarity to horizontal policies (e.g., general R&D supports, workforce development, infrastructure), targeted tools can enhance overall performance (Criscuolo et al., 2024; Millot & Rawdanowicz, 2024; OECD, 2024). Recent initiatives span both developing and advanced economies, including *Make in India*, Indonesia's efforts to promote commodity down-streaming, Malaysia's *New Industrial Master Plan 2030*, the U.S. *Inflation Reduction Act*, the EU *Chips Act*, and continued technology-leadership strategies in Japan and South Korea (World Economic Forum, 2024; United Nations Industrial Development Organization, 2024).

Automotive value-chain dynamics strengthen the case for such interventions. First, spillovers to tooling, materials, electronics, and process engineering are substantial (Sturgeon et al., 2008; Innovation, Science and Economic Development, 2026b). Second, high fixed and sunk costs along with long development cycles mean public co-investment can shift location choices by creating option value (Millot & Rawdanowicz, 2024). Third, early capture of EV and battery nodes positions regions to influence future mandates and supply footprints (OECD, 2024). Fourth, in Canada, EV-supply-chain build-out may complement strengths in assembly, tooling, and advanced materials. Finally, targeted measures can help lift chronically weak business investment, addressing persistent productivity shortfalls (Statistics Canada, 2024; Innovation, Science and Economic Development, 2026b).

In sum, automotive manufacturing concentrates scale economies, ecosystem spillovers, export intensity, and technological dynamism, attributes that render manufacturing indispensable to advanced economies (Rodrik, 2013; OECD, 2024). For Canada, therefore, well-designed industrial policy can reinforce existing capabilities while tackling structural productivity constraints.



3. CANADA'S AUTOMOTIVE SECTOR IN CONTEXT: CURRENT STATUS AND CONTINENTAL RELEVANCE

A long-run view of North American automotive production and sales provides essential context for assessing Canada's contemporary position within the regional industry. The three figures that follow—vehicle production (Figure 2), vehicle sales (Figure 3), and production-to-sales (P/S) ratios (Figure 4)—trace the evolution of continental automotive activity from 1960 to 2024, spanning the period immediately preceding the Auto Pact and extending through NAFTA and into the present. While the data includes the United States and Mexico, their primary interpretive value lies in comparison: they reveal how the geography of assembly within North America has shifted over time and, in doing so, help clarify Canada's structural position within the integrated North American production system.

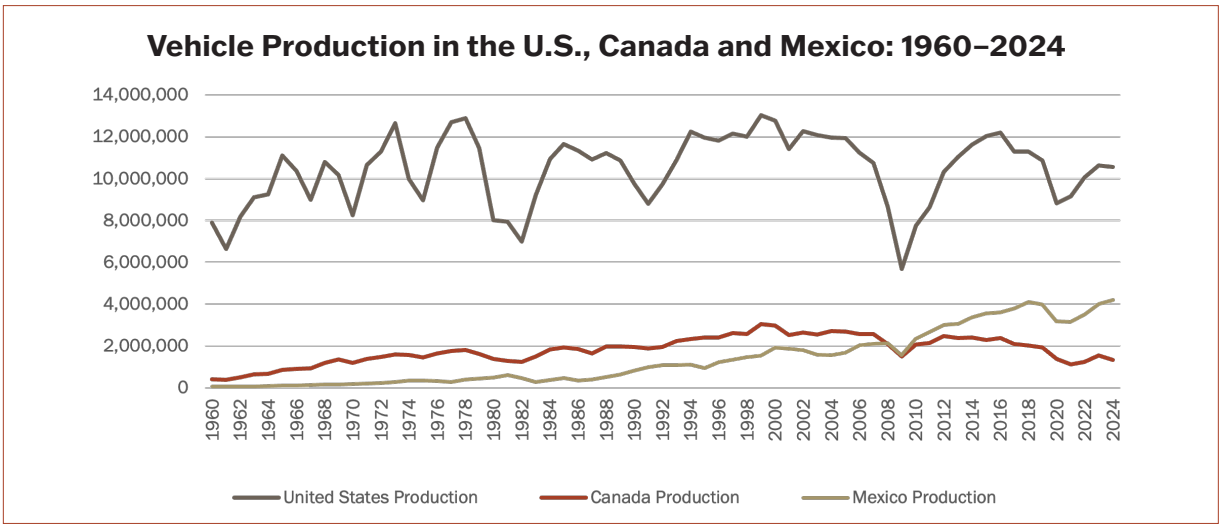
The P/S ratio provides a summative indicator of a country's structural role. A ratio above one signifies export orientation, indicating that a nation produces more vehicles than domestic consumers purchase and captures more than its proportional share of regional manufacturing activity. A ratio at or near parity indicates balance, whereas a ratio below one reflects reliance on imported vehicles and thus diminished domestic assembly. Interpreted in this way, the three figures function both as a historical record and as a diagnostic instrument informing current policy debates.

Figure 2 shows that the U.S. has consistently produced fewer vehicles than its consumers purchase. Indeed, American production has not exceeded American sales since 1965, the first full year of the elimination of Canada–U.S. automotive tariffs. Since the introduction of NAFTA in 1994, Figure 4 shows U.S. assembly plants have typically produced about seven vehicles for every 10 sold domestically. Although U.S. output remains large by global standards, it has declined from 12.25 million vehicles in 1994 (78% of regional production) to 10.5 million in 2024 (65.6%).

Mexico's pattern contrasts sharply. Prior to NAFTA, its longstanding import-substitution regime kept production and sales roughly aligned at a 1:1 ratio. The maquiladora program—introduced in the 1960s and expanded significantly after the 1982 peso devaluation—enabled duty-free import of inputs for export-oriented production, causing Mexico's P/S ratio to climb steeply. By 1994, Figure 4 shows its P/S ratio reached 1.86:1. NAFTA intensified Mexico's transformation. As Figure 2 shows, Mexico surpassed Canada in total production for the first time in 2008. By 2024, Mexican production reached 3.09 million units—an increase of 279% over 1994—while vehicle sales more than doubled. Mexico's P/S ratio stabilized around 2.7:1, underscoring its consolidation as the region's primary export-oriented assembly hub.

Canada's trajectory has been marked by distinctive turning points. In the five years before the Auto Pact, data from Figure 2 shows Canadian assembly plants produced an average of 518,000 vehicles annually. By 1994, output had risen to 2.3 million units, equal to 14.8% of North American production and yielding a P/S ratio of 1.85:1. Production peaked at three million units in 1999 (P/S 1.99:1) before entering a multi-decade contraction. By 2019, output had fallen to 1.9 million units (11.4% of regional production), and Canada, for the first time since 1964, consumed more vehicles than it assembled. Decline continued into the 2020s: by 2024, production had dropped to 1.34 million units, just 8.3% of the continental total, and the P/S ratio fell to 0.70:1, only marginally above the U.S. figure of 0.65:1.

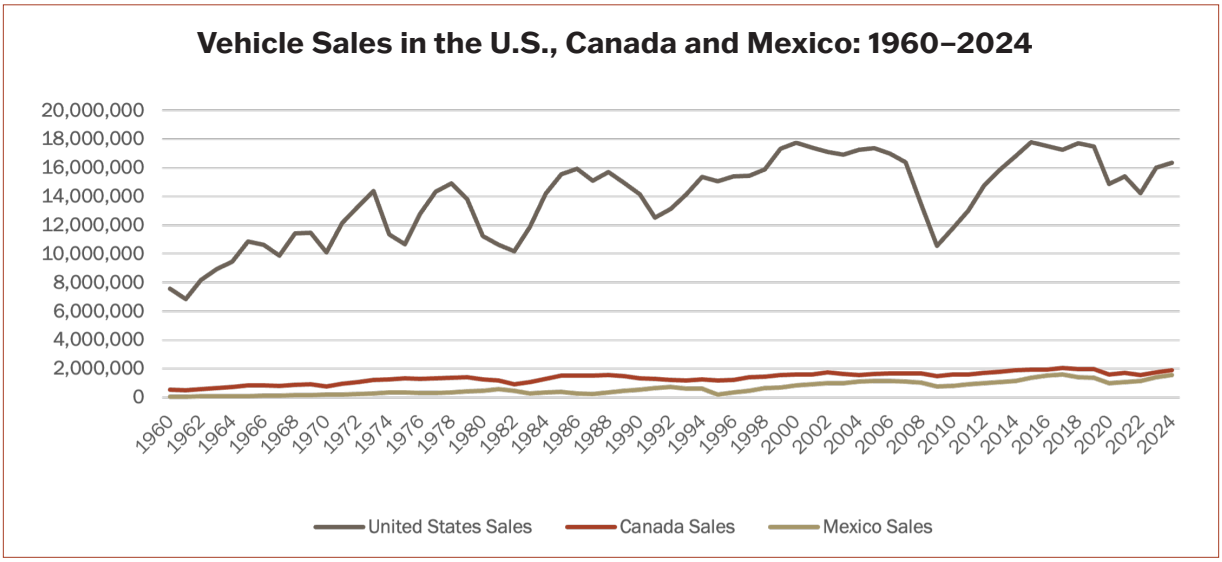
Figure 2:



Source:

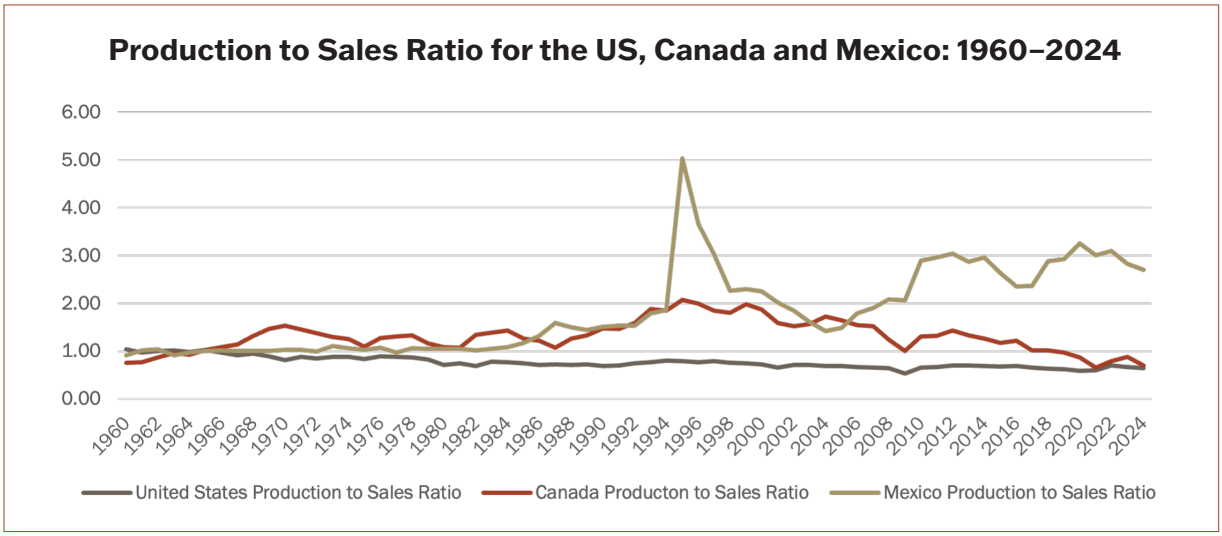
Production figures for 1960–1999 from DesRosiers Automotive Yearbook, 2001 Edition
Production figures for 2000–2015 from DesRosiers Automotive Yearbook, 2016 Edition
Production figures for 2016–2024 from International Organization of Motor Vehicle Manufacturers (2026)

Figure 3:



Sales figures for 1960–1999 from DesRosiers Automotive Yearbook, 2001 Edition
Sales figures for 2000–2015 from DesRosiers Automotive Yearbook, 2016 Edition
Sales figures for 2016–2024 from International Organization of Motor Vehicle Manufacturers (2026)

Figure 4



From data used to compile Figure 2 and Figure 3 above

Taken together, these patterns reflect a regional system in which national roles have become increasingly differentiated. The United States drives demand, Mexico anchors export-oriented production, and Canada faces a structurally diminished position within the continental assembly footprint. These trends sharpen the industrial-policy challenges Canada confronts amid the sector's ongoing transition toward electrification, battery manufacturing, and software-defined vehicle architectures.

4. HISTORICAL FOUNDATIONS OF CANADA'S CONTEMPORARY AUTOMOTIVE INDUSTRY

Understanding the historical evolution of Canada's automotive industry is essential for situating contemporary industrial-policy debates. The sector did not emerge spontaneously; rather, its development has been shaped by deliberate and sustained state intervention. Although this section concentrates on the post-1960 period, the policy roots of Canada's automotive economy extend much earlier. By the late 19th century, Canadian policymakers were already influencing the industry's trajectory through protective tariff regimes—most notably the 35% duty imposed on carriages in 1879 which was later extended to automobiles—helping to attract foreign assemblers such as Ford's Walkerville (Windsor) Ontario plant in 1904 (Mordue, 2007; Anastakis, 2013). These early initiatives reflect a durable pattern: Canada's automotive footprint has been constructed, maintained, and periodically reshaped through intentional policy design.

Tracing these interventions is analytically important because many of the instruments deployed over the past century—including import controls, duty-remission schemes, production incentives, capital supports, and shifting tariff structures—retain relevance for present-day industrial strategy. Considered in light of contemporary challenges and opportunities, the industrial policy measures debated and implemented in 2026 are, in most cases, not novel. Rather, they represent the renewed deployment of instruments first developed in earlier periods. This continuity renders their systematic study particularly pertinent at present.

a) The Auto Pact and Its Aftermath (1960–1980)

Through much of the early 20th century, Canada's automotive sector developed as a branch-plant system of U.S. automakers. High tariffs on both finished vehicles and parts (see Table 1) ensured that most vehicles sold in Canada were made domestically, albeit at subscale volumes. The effect on consumers was that model variety was limited and prices (vis-à-vis the U.S) were high (Mordue, 2007; Holmes, 1988).

Table 1

General Preferential Tariff Rates on Automobiles in Canada

	DUTY ON VEHICLE VALUE		
Dates	**< $1,200**	**$1,200–$2,100**	**> $2,100**
To April 1926	35%	35%	35%
Apr 1926 – Jun 1931	20%	27.5%	27.5%
Jun 1931 – Dec 1935	20%	30%	40%
Jan 1936 – May 1936	17.5%	22.5%	30%
May 1936 – Jun 1962	17.5%	17.5%	17.5%
Jun 1962 – Mar 1963 (temporary surcharge)	27.5%	27.5%	27.5%

***Source**: Mordue (2007)*

By the late 1950s, this structure was under considerable strain. A domestic downturn and surging imports, largely European, reduced employment and lowered Canada's production-to-sales (P/S) ratio (Holmes, 1988; Mordue, 2014). Import penetration nearly doubled, from 11.8% (1951–1955) to 26% (1956–1960), while domestic output fell by about 30,000 units annually, the sharpest contraction since the early 1930s (Motor Vehicle Manufacturers Association, 1961, pp. 3, 13). In response, the Diefenbaker government convened a Royal Commission (Anastakis, 2005).

From the Royal Commission (see Canada, 1961), Ottawa paired a tariff increase (see Table 1) with duty-remission programs to stimulate domestic parts sourcing and exports (Johnson, 1964; Wonnacott, 1965). U.S. officials objected: Commerce Secretary Luther Hodges urged automakers to resist and Assistant Secretary Richard Holton warned of trade complications (Toronto Star, 1963, p. 14). U.S. authorities argued the plan constituted an export subsidy under Section 303 of the 1930 Tariff Act (Globe and Mail, 1963, p. 31). Eventually, these tensions led to negotiations beginning April 1964 which culminated in the Canada–U.S. Automotive Products Trade Agreement (Auto Pact), effective January 1965. The Auto Pact provided duty-free trade in vehicles and parts, conditional on a 1:1 production-to-sales commitment and specified Canadian value-added thresholds (Anastakis, 2005; Dykes, 1970).

The Auto Pact and the resulting integration of the auto industries in the two signatory nations enabled efficient scale in Canada (Beigie, 1970; Emerson, 1975; Flynn, 1979). Additionally, Canada's offer of comparatively lower labour costs, reinforced by the advent of publicly funded health care, caused GM, Ford, Chrysler, and AMC to expand Canadian production. Moreover, whenever automakers missed their Auto Pact obligations, Ottawa

typically chose to negotiate additional investment rather than impose tariffs, further entrenching Canada's role (Mordue, 2007). Outcomes were substantial: data from Figure 2 show average annual production rose from 518,000 (1960–1964) to 1,611,000 (1976–1980), and Canada's share of North American assembly increased from 5.9% (1960–1965) to 12.9% (1976–1980).

b) The Entrance and Growth of Non-U.S. Automotive Investment (1980–2000)

Following the implementation of the Auto Pact, the Canadian automotive industry entered a sustained period of growth and stability. However, by the late 1970s, concerns about Canada's automotive industry reemerged. Continental demand had softened, Canadian assembly volumes had plateaued, and the Auto Pact's expansionary effect had waned after U.S.-owned subsidiaries had accumulated sufficient capacity to meet production and Canadian-value-added obligations. Integration also altered organizational capabilities: before the Auto Pact, Canadian subsidiaries operated flexible lines and maintained higher-order functions in purchasing, product planning, and logistics. Rationalization under continental integration narrowed those functions, influences that proved unsettling to labour and policymakers (Government of Canada, 1978; MacDonald, 1980). External tremors deepened the pressures. The second oil shock (1979) shifted demand toward smaller, more fuel-efficient models, an area of relative weakness for the Big Three. Then, a deep recession in the early 1980s further strained North American producers (GómezIbáñez & Harrison, 1982; Perry, 1982). The Chrysler rescue in 1979, supported by Ottawa and Ontario, underscored the sector's fragility (Anastakis, 2007).

Meanwhile, Japan-based firms, specializing in high-efficiency models but lacking North American production, gained market share, particularly in the U.S., Canada's main export market. This exacerbated job losses at U.S.-based producers on both sides of the border (Abernathy et al., 1981; Government of Canada Department of External Affairs, 1987; Motor Vehicle Manufacturers Association, 1961).

Policy Architecture: Calibrated Pressure and Targeted Incentives

In response to the pressures, Ottawa deployed a dual strategy of "sticks" and "carrots" to induce non-U.S. automakers, primarily Japanese, to localize production. Industry Minister Ed Lumley coupled blunt rhetoric with administrative frictions, making market access contingent on production in Canada. His message, endorsed by labour, incumbent OEMs, suppliers, and Ontario, was operationalized through meticulous, unit-by-unit customs inspections of Japanese imports at the Port of Vancouver, signaling a willingness to impose procedural delays to advance industrial-policy aims (White, 1987). Additionally, Lumley's 1982 federal task force on the future of the Canadian auto industry force, co-chaired by well-known protectionists Bob White (Canadian Auto Workers) and Pat Lavelle (Automotive Parts Manufacturers Association), reinforced the message to Japan that Canada expected higher Canadian value-added (White, 1987; Mordue, 2007).

Beyond the messaging and threats, Voluntary Export Restraints (VERs) on Japanese automobiles, introduced in 1981 and patterned on the U.S. program, capped imports at 171,000 units and linked continuing market access to progressive localization (Crandall, 1987; Dryden, 1995). While VERs alone were not sufficient to trigger foreign direct investment (FDI), their introduction, combined with visible administrative actions and political signaling, made greenfield investment the risk-minimizing path for Japanese OEMs contemplating a long term North American presence (Wonnacott, 1988; Rugman, 1990).

Direct Incentives and Announced Projects

Complementing these pressures, federal and provincial governments offered loans, grants, training supports, duty-remission mechanisms, and pragmatic use of the Foreign Investment Review Act's "net benefit" test to negotiate enforceable sourcing and investment commitments (Wonnacott, 1987; Rugman, 1983; Womack et al., 1990). Although devised chiefly with Japanese OEMs in mind, these instruments also facilitated South Korean and French automotive investments in Canada (Wonnacott, 1987; Rugman, 1990).

Eventually, the combination of "pressure" and "promise" yielded significant results. Between 1984 and 1986 five non-U.S. automakers—Toyota, Honda, Suzuki (via a GM joint venture), Hyundai, and Renault (via an AMC joint venture)—announced Canadian assembly projects. These projects lifted output, employment, and manufacturing GDP through the late 1980s and into the 1990s as the new entrants first established and then scaled up production. With the exception of Honda, all were supported with a combination of loans and grants representing at least 12.5% of each firm's capital costs.

Duty Remission: From Under-utilized Mechanism to Central Lever

Beyond protectionist measures and threats and beyond direct incentives (loans and grants), duty remission also provided a valuable tool, evolving from a modest, export-reimport-based rebate into a central inducement to lure global OEMs to Canada. Under the original General Remission Order, firms could obtain a rebate on the duty paid when importing finished vehicles, but only up to the value of Canadian-made parts that had been exported abroad and were subsequently re-imported in the form of completed vehicles. In practice, the impact of the program was limited given the fact that the Auto Pact already provided for duty-free export of parts to the primary market, the U.S., and the Canadian auto industry's limited participation in non-U.S. markets (Holmes, 1993).

In January 1978, Ottawa redesigned the General Remission Order to link duty relief to a firm's overall Canadian Value Added (CVA) purchases, irrespective of re-import status, with thresholds negotiated case by case (Government of Canada, 1978; Hart, 1998). For example, for Toyota, officials proposed that remission could rise to 75% upon achieving 12% CVA relative to Canadian sales, after an initial $4.7 million CVA minimum (Government of Canada, 1978; Government of Canada, 1984). Early uptake varied. Volkswagen reached about $80 million in Canadian parts purchases in 1980, while Nissan and Honda together purchased $6.7 million (about 1.5% of their Canadian sales). Even so, the 1978 redesign established the administrative base for later expansion (Roberts, 1992; Hart, 1998).

In 1984, Ottawa formalized a two-track, more rewarding scheme: 1) a $0.70 duty reduction per imported vehicle for each $1 of CVA embodied in parts exported anywhere to the targeted OEM (no direct-investment requirement); and 2) full (100%) duty remission for firms making substantial direct investments in Canada (Government of Canada, 1984; Hart, 1998; Wonnacott, 1987). This framework became standard in negotiations with offshore automakers throughout the 1980s.

Although the Canada–U.S. Free Trade Agreement scheduled the phaseout of remission, reflecting U.S. concerns over trade-distortive export subsidies, the federal government estimated the value of the expanded 1984 scheme for Honda, Toyota, and Hyundai at C$227 million prior to conclusion (Canada Department of Regional and Industrial Expansion, 1987; Roberts, 1992; Hart, 1998; Wonnacott, 1988).

Outcomes by 2000

By 2000, Canadian assembly approached three million units, up 81.9% from 1980, ranking behind only the United States, Japan, Germany, and France for annual output (International Organization of Motor Vehicle Manufacturers, 2025); this, despite Canada's lack of a "homegrown" OEM. While proximity to the U.S. market and favourable exchange rates helped, the decisive factor was policy: the ability to signal, sequence, and enforce a coherent blend of conditional protection and targeted industrial policy measures at critical junctures (Wonnacott, 1987; Rugman, 1990).

c) Post-NAFTA (2000–2026)

This section resumes the narrative in 2000, a point at which the structural pressures facing Canada's automotive industry began to re-intensify. Although NAFTA entered into force in 1994, its early effects on Canada's automotive industry were obscured by strong continental demand throughout the late 1990s. As shown in Figure 2, Mexican vehicle production expanded rapidly after 1994; however, the implications of this shift for Canada were initially masked by rising North American sales. Indeed, Figure 2 shows Canadian vehicle output also increased between 1994 and 2000. However, by the turn of the century, the deeper structural adjustments set in motion by NAFTA began to take shape. Canadian vehicle production entered a prolonged decline, one that has extended for 25 years. This section traces the origins of that contraction and examines its consequences for Canada's position within both the regional and global automotive industry.

Certainly, after 2000, the global automotive sector confronted acute disruptions, most prominently, the 2008–09 financial crisis and the COVID19 pandemic, alongside gradual, technology-oriented shifts grouped under CASE (connectivity, automated driving, shared mobility, and electrification). Even so, we stress the following: 1) the shocks (the financial crisis and COVID) were temporary; 2) the advent of new technology has had minimal effect on the profile of Canada's automotive manufacturing industry. As we will demonstrate, Canada's auto industry is driven by decisions made externally: we make what we are told to make, when we are told to make it, using technology largely developed elsewhere. In short, while technology

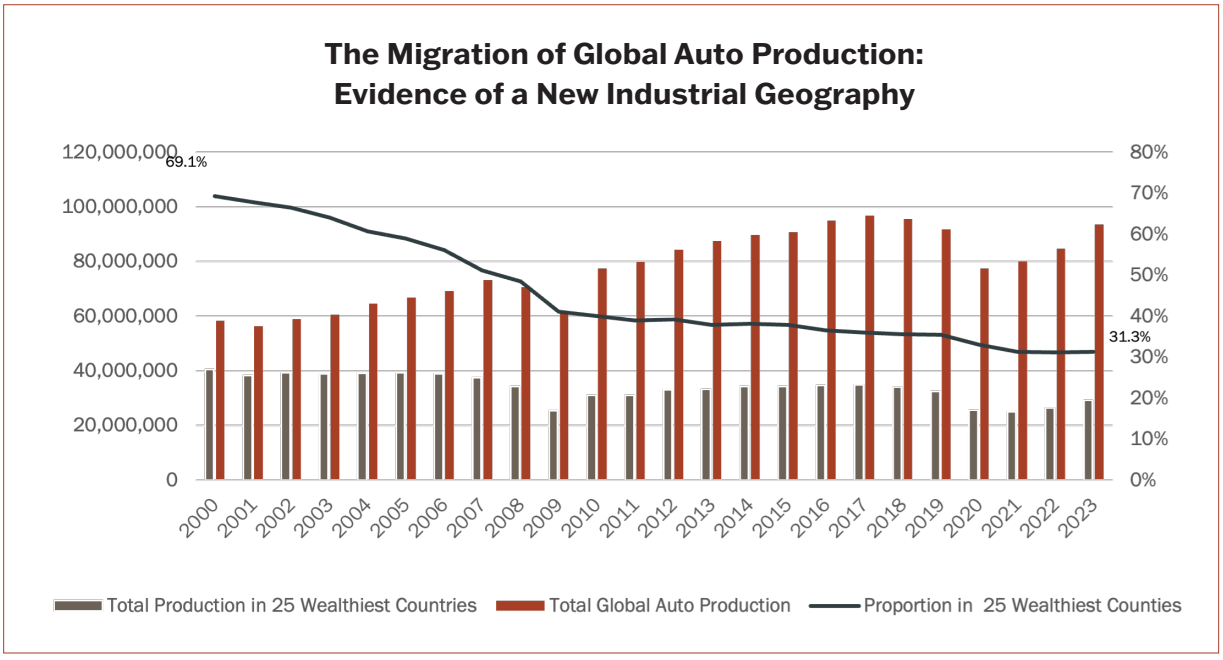
affects *what* we make, Canada's place within the architectural structure of the global auto industry means the advent of technology has minimal effect on Canada's participation or the profile of its automotive industry. We discuss the implications of these aspects going forward.

The Changing Geography of Automotive Production after 2000

From the perspective of Canadian policymakers, workers, and manufacturing communities, the most consequential changes since the early 2000s have been driven by the reconfiguration of automotive geography. Most importantly for Canada, automotive manufacturing capacity has migrated toward lower-income jurisdictions. Since 2025, this trend has been made more complicated by increasing volatility with respect to U.S. trade.

Throughout the global automotive industry's first century, design, engineering, and assembly were concentrated overwhelmingly in high-income countries. Figure 5 shows that as late as 2000, almost 70% of global output occurred in the world's 25 wealthiest economies. By the mid-2020s, that share had fallen to about 30%, meaning a clear majority of global vehicle production is now located in less affluent countries with lower labour costs, underscoring the long term pressures bearing on mid-tier producers like Canada.

Figure 5



***Sources**:*

Vehicle Production from International Organization of Motor Vehicle Manufacturers. (2026)

Data related to country wealth from GNI Per Capita (World Bank, 2026b)

Positioning Nations in the Global Automotive Ecosystem

A substantial body of research interprets this post-2000 spatial reorganization using global value chain/production-network frameworks and the lens of uneven development (Brincks et al., 2018; Domański et al., 2017; Lampón et al., 2016; Sturgeon et al., 2009; Pavlínek, 2022). More recently, a now-widely-used schema positions countries as Core, Semi-periphery, or Integrated Periphery (Pavlínek, 2018; Mordue & Sweeney, 2020). As Figure 6 shows, Core economies typically host OEM headquarters and combine large-scale assembly with R&D (e.g., China, India, Germany, Japan, the United States), while Integrated Peripheries compete primarily on labour-cost advantages. Integrated Peripheries have expanded rapidly since the early 2000s (e.g., Central and Eastern Europe, North Africa, Mexico, Thailand) (Pavlínek, 2022; Sturgeon & Van Biesebroeck, 2010). China, and to a lesser extent India, exhibit hybrid characteristics, combining strong domestic lead firms with persistent cost advantages, a configuration in which the two strengths operate synergistically to reinforce their overall competitive position.

The Semi-periphery sits between these poles. Lacking both the strategic anchor of home-based OEM headquarters and the strong cost advantage of Integrated Peripheries, Semi-peripheral countries struggle to secure knowledge-intensive mandates concentrated in the Core. They are also unable to attract major greenfield assembly, which are increasingly pulled to low-cost locations (Mordue & Sweeney, 2020). This group includes formerly Core producers that have slipped to Semi-peripheral status (e.g., Sweden, Spain, the U.K., and more recently Italy) as well as countries—like Canada and Austria—that have never hosted their own global lead firms.

Commoditization of Vehicle Assembly and Its Implications

The rising prominence of low-cost manufacturing nodes is closely tied to what Mordue and Sweeney (2017) term the commoditization of vehicle assembly. As production routines, quality systems, and managerial practices converged across firms and regions, automotive assembly ceased to function as a distinctive technological capability. It became widely transferable, enabling OEMs to reallocate investment toward jurisdictions with favourable labour-cost structures. This departs markedly from earlier decades, when less-developed economies were limited to partial or small-scale operations (Wilkins & Hill, 1964; Baranson, 1969; Dassbach, 1989). However, since the early 2000s, countries like Czechia, Hungary, Mexico, Morocco, Slovakia, and Turkey have become major assembly centres, Meanwhile, quality metrics have also converged (J.D. Power, 2026), and capital intensity shows limited variation by income level. The presence of premium brands (e.g., BMW, Audi, Infiniti, Cadillac) in Mexico underscores how quality and brand positioning now coexist with lower-cost assembly platforms. These dynamics help explain the stagnation of final assembly in many advanced economies, including Canada.

While the Core–Semi-periphery–Integrated Periphery framework is relatively stable in the short run, longer histories show fluidity, particularly within the Semi-periphery, where status can erode after corporate restructurings, sales, or declines of domestically headquartered OEMs (e.g., Sweden/Volvo; the U.K./JLR; Italy/Stellantis' reorganization).

Figure 6

Architecture of the Global Automotive Industry

Category	Core	Semi-Periphery	Integrated Periphery
Countries	China India		China India
	U.S. Germany Japan South Korea France	U.K. Canada Austria Spain Belgium Sweden Finland Italy	Mexico, Slovakia, Poland, Portugal, Indonesia, Iran, Czechia, Turkey, Russia, South Africa, Morocco, Argentina, Thailand, Hungary, Slovenia, Taiwan
Primary Source of Competitive Advantage Recognized by the Automotive Industry	Power	???	Low Cost
Key Attributes			
Homegrown Automakers	Yes	No	No
Automotive R&D Output	High	Low-Medium	None-Low
Labour Costs	High	High	Low
Foreign Ownership	Low-Medium	Medium-High	High
Homegrown Top 100 Suppliers	High	Low-Medium	None-Low

Derived from Mordue and Sweeney (2020)

Semi-periphery Dynamics and Canada's Trajectory

Table 2 situates Canada within the Semi-periphery's longer-term performance. It shows that the broader pattern is one of system-wide retrenchment among Semi-peripheral producers. For Canada, the downturn long predates the political shocks of 2025–2026. As Figure 2 documented, Canada has experienced a 25-year contraction in vehicle production; subsequent U.S. policy turbulence merely heightened the visibility and urgency of this decline but did not originate it. Table 2 makes clear that Canada's trajectory mirrors those of other high-volume Semi-peripheral producers, including the U.K., Spain, and, more recently, Italy (post-Stellantis, 2021). All have seen diminished production footprints.

Table 2: Declining Performance of Automotive Semi-peripheries: 2000 Versus 2024

		2000			2024		
Region	**Country**	**Vehicle Production**	**Share of Global Production**	**Share of Regional Production**	**Vehicle Production**	**Share of Global Production**	**Share of Regional Production**
North America	**Canada**	2,961,830	5.08%	16.73%	1,342,647	1.45%	8.34%
Asia-Oceania	**Australia**	347,122	0.60%	1.94%	7,238	0.01%	0.01%
Europe	**UK**	1,814,152	3.11%	8.95%	905,233	0.98%	5.25%
	Austria	141,026	0.24%	0.70%	71,785	0.08%	0.42%
	Spain	3,032,874	5.20%	14.95%	2,376,504	2.57%	13.79%
	Sweden	301,343	0.52%	1.49%	268,487	0.29%	1.56%
	Belgium	1,033,294	1.77%	5.10%	240,366	0.26%	1.39%
	Finland	38,926	0.08%	0.19%	22,384	0.02%	0.13%
	Italy	1,738,315	2.98%	8.57%	591,067	0.64%	3.43%
Traditional European Semi-periphery		8,099,930	13.88%	39.95%	4,475,826	4.84%	25.97 %
Total Semi-periphery		11,408,882	18.96%	--	5,825,711	6.30%	--

***Source**: Production data from International Organization of Motor Vehicle Manufacturers (2026)*

Technological Transformations Reshaping Canadian Automotive Production

The post-2000 wave of connected, autonomous, shared, and electrified ("CASE") automotive technologies has reoriented competition in the global automotive industry. Of these domains, electrification has been most consequential. While CASE will shape what Canadians drive, the more salient point for industrial policy is that CASE—and electrification in particular—determines who leads, and thus with whom Canada can and should partner.

Global EV diffusion has reached a structural inflection. Granted, the trend to electrified mobility in North America has stalled; however, it is well understood that North America is unique. Globally, EV sales exceeded 20 million in 2025 (almost 25% of the new vehicle market) (International Energy Agency, 2025) and many have observed that the growth of electric drive-trains constitutes the most consequential technological disruption the automotive industry has encountered since its inception (see Mohammad et al., 2025; Lechowski et al., 2025). Although North American adoption has slowed amid policy uncertainty and uneven affordability, the global trajectory remains firmly upward, and the long-run shift toward electrification is intact.

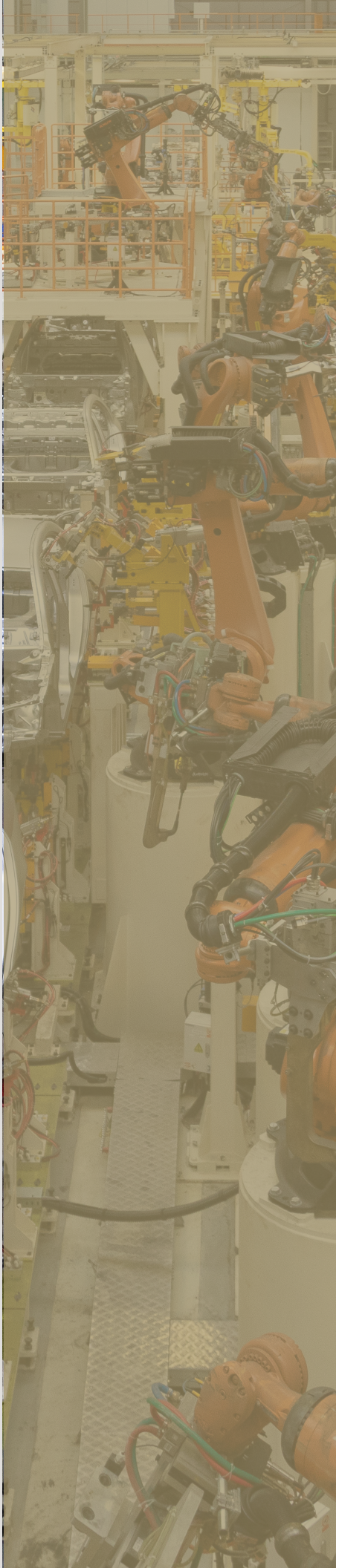
North America's current status as global electrification laggards notwithstanding, key trends at the intersection of electrification and the global automotive industry will have profound implication for Canada. Insofar as this report is concerned—automotive industrial policy for Canada—the long-term implications are clear.

First, the North American slowdown in electrification is temporary, not terminal. Eventually, the trend on this continent toward electrification will restart and amplify (Muratori et al. 2025; Koelmel, Brysch and Bulander, 2025).

Second, global leadership in electrification is unambiguous. Chinese automakers now account for almost two-thirds of global EV sales. China and Chinese automakers have consolidated their dominance across the EV battery value chain, underpinned by systemic advantages in materials processing, cell manufacturing, industrial infrastructure, and cost (International Energy Agency, 2025; BloombergNEF, 2025). China also ranks at or near the top of global lithiumion supply chain assessments, commanding major shares across midstream and downstream stages (precursors, cathodes/anodes, cell manufacturing), reinforcing leadership beyond final assembly (U.S. Department of Energy, 2024; Miao et al., 2023) Additionally, as the next section will show, China is the unmistakable leader in automotive R&D in general and clean technology R&D in particular.

Third, policy uncertainty in the United States has complicated North American planning cycles. Since mid-2025, federal adjustments and reversals affecting EV purchase incentives and emissions trajectories have coincided with OEM retrenchment and program deferrals. U.S. automakers have announced significant write-downs and confirmed major delays in EV rollouts. For U.S. automakers, these dynamics heighten the risk that the existing capability gap with global leaders will continue to expand.

Electrification has altered the hierarchy of automotive innovation and leadership. Thus, for Canada, the march to electrified mobility matters, not because it dictates the specific models Canada will build—the structure of Canada's auto industry means that production allocations remain extra-national—but because it reorders leadership and partnership possibilities. Canadian automotive industrial policy should therefore prioritize integration with durable leaders in electrification (battery suppliers, materials processors, power electronics, software). In the electrified mobility space, it is arguable whether U.S. automakers represent durable leaders.



5. CANADIAN AUTOMOTIVE INDUSTRIAL POLICY DURING THE POST-2000 PERIOD

Overview

Since 2000, Canadian automotive industrial policy has centred on two priorities: securing mandates for automotive R&D, and managing a prolonged decline in domestic vehicle production. Because these priorities define the contemporary policy environment, this section examines each in turn.

a) Research and Development in the Global and Canadian Automotive Industries

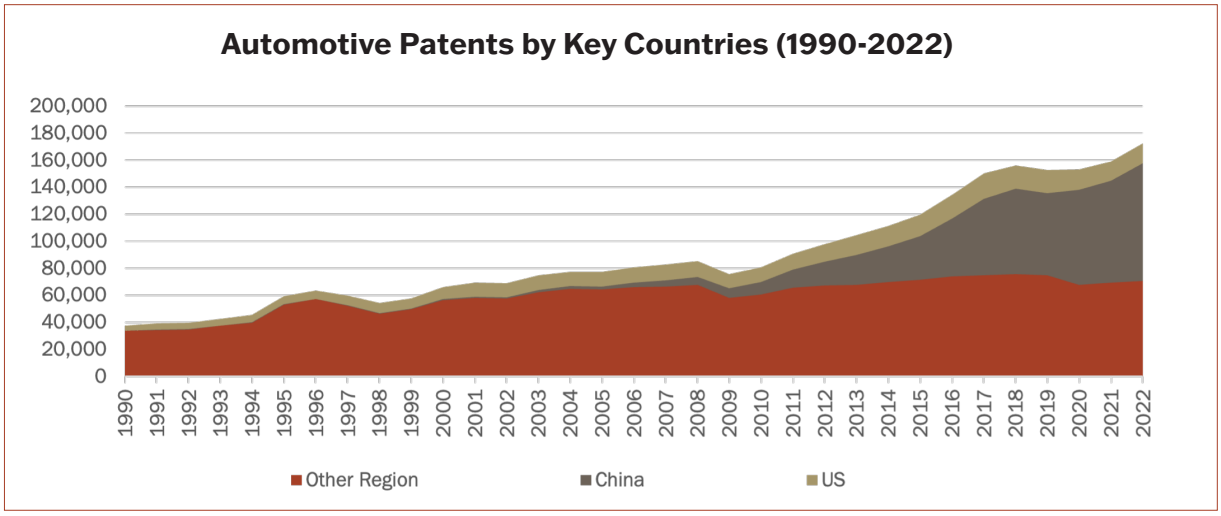
We use patents as an output-based proxy for assessing the knowledge-intensive profiles of countries' automotive industries. An output indicator is preferable to inputs such as R&D spending because patent counts are comparable across time and jurisdictions, and consistent year-by-year data exist. Patents were retrieved from Patsnap, a database of more than 190 million patents across 170 jurisdictions worldwide. Because applications take several years to be granted and recorded in international databases, a 2022 cutoff balances recency with reliability by capturing mature, fully registered patents rather than pending filings.

Two features frame the post-2000 innovation landscape. First, China has become the global centre of automotive innovation; relative to China, the output of every other country, including Core producers such as Japan, Germany, South Korea, and the U.S., appears modest. Second, despite its automotive capabilities, Canada's R&D output is inconsequential. Both features carry implications for automotive industrial policy in Canada and in other Semi-periphery countries.

Innovation in Core Countries

Figure 7 shows that, in absolute terms, the U.S. and most other countries are generating patents in volumes that are stable or only modestly higher than in recent decades. More notably, Figure 7 captures the rapid emergence of China as the industry's nucleus for innovation. From virtually no patents before the 2008 global financial crisis, China has become the automotive industry's most prolific innovator. By 2022, data from Figure 7 shows China was accounting for about half of all global automotive patents. The U.S., by comparison, generates patents at about 20% the rate of China, a turn of events that should have important inferences for Canada and the relationships it seeks to forge for its own automotive industry.

Figure 7

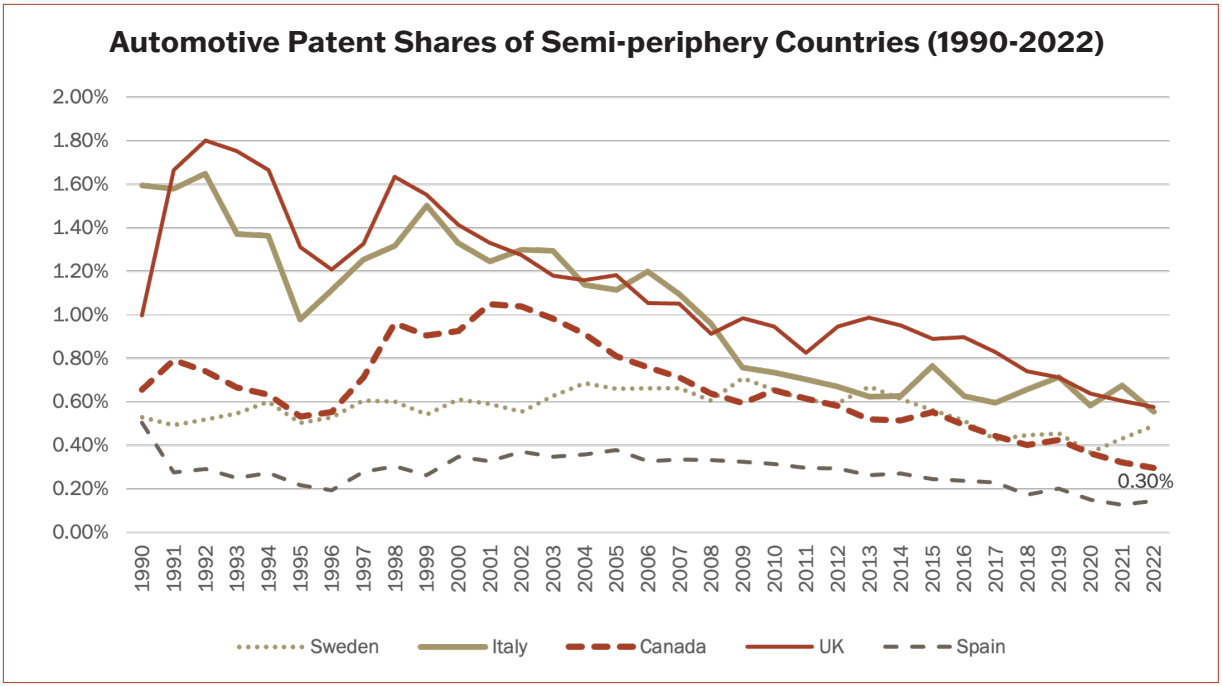


Source: *Authors' own elaboration based on Patsnap.*

R&D in Canada and Other Semi-peripheries

At various points since 2000, Canadian automotive actors have advanced the view that Canada is well suited to assume an elevated role in higher-order, advanced R&D. However, the comparative evidence points elsewhere. Countries in the Semi-periphery perform relatively little automotive R&D when set against the Core. Across manufacturing generally and the automotive industry in particular, knowledge-intensive activity remains headquarters-centric, concentrated in the home regions of global lead firms. Data from Figure 8 shows patent output across the most important Semi-periphery producers—Canada, the U.K., Spain, Sweden, and Italy—showing innovation has been low but stable in absolute terms, but declining vis-à-vis the rest of the world. Figure 8 also shows that Canada now accounts for less than one-third of one percent of global automotive patent output. Thus, Canada's profile as a location for automotive innovation has withered over the past quarter-century; this, despite periods when Canadian actors aggressively promoted its capabilities.

Figure 8



Source: *Authors' own elaboration based on Patsnap.*

Patent output generated by Canada and other Semi-peripheries reflects the enduring pull of corporate headquarters and the institutional environments that surround them (Calabrese, 2001; Goldman et al., 2016). Even after more than 60 years of dense cross-border production integration and despite the geographic proximity between Ontario's assembly corridor and the headquarters of three global automakers in Michigan, Canada remains a modest contributor to automotive R&D. The pattern highlights a structural reality: innovation mandates cluster around home-region headquarters, and R&D functions remain embedded in those core ecosystems, even as production networks internationalize.

Evidence from the supplier sector reinforces this dynamic. As Mordue and Sweeney (2020) show, Canada's largest headquartered suppliers—Magna, Linamar, and Martinrea—tend to concentrate their R&D *not* near their own headquarters but in the industry's Core, notably Michigan and Germany, where principal OEM customers are located. Smaller suppliers, by contrast, typically retain R&D near domestic headquarters. This bifurcation suggests that as suppliers scale, they detach innovation functions from home-country bases and reposition them within established centres of automotive expertise.

b) Direct Incentives as Canada's Primary Industrial Policy Instrument

Post-2000 Expansion of Direct Incentives

By the start of the 21st century, financial incentives to attract automotive investment were already familiar in Canada. In subsequent years, Canada's use of this industrial policy tool became even more prominent as it competed in a North American production system in which Mexico consolidated its position as the low-cost producer. Between 2001 and 2025, Canada experienced a loss of eight assembly plants (one later reopened) and gained only one new facility, Toyota's Woodstock plant (opened in 2008).

As Canada's base of automotive investment withered, the primary instrument its policymakers employed to reinforce what was left broadened accordingly. Interest-free loans gave way to non-repayable grants; the scope widened from support for greenfield assembly to routine retooling of existing facilities tied to model/platform updates every five to seven years. From 2000 to 2023, federal and provincial governments issued 17 major incentive packages exceeding $100 million: 16 supported refurbishments; only one to help attract a new assembly plant (Mordue & Sweeney, 2024).

These interventions carried substantial fiscal implications. Governments committed approximately $3.9 billion to the 17 projects. Additionally, public support for the 2009 restructuring of General Motors and Chrysler added a net public cost of $3.7 billion (Milke, 2015). Together, these commitments amounted to $7.61 billion (Mordue & Sweeney, 2024).

Early 2020s Pivot to Electrification

After years of declining production, contracting employment, and limited success in attracting major R&D mandates, policymakers pursued a realignment around electric mobility, advancing a "mines-to-mobility" rationale that Canada's critical minerals, parts capabilities, and existing assembly base could underpin battery-electric vehicle (BEV) and battery manufacturing investments (Bains, 2020; Canada, 2020).

Between 2020 and 2022, Canada employed familiar tools—discretionary incentives covering about 20% of capital costs—to support BEV retooling for Ford (Oakville), GM (Ingersoll), and Stellantis (Windsor, Brampton).[2]

Then, beginning in 2022, policy intensified around three foreign-owned battery projects. LG–Stellantis (Windsor) was initially structured with a conventional capital grant: a combined value of $1 billion from Canada and Ontario to support capital spending of $5 billion (20%). However, within months of the LG-Stellantis

2 Subsequently, none of these projects have proceeded as originally planned. After two delays, Ford eventually shifted the Oakville plan to heavy-duty ICE pick-up trucks at much smaller volumes. The plant has been closed to facilitate the shutdown for several years. GM's Ingersoll and Stellantis' Brampton plants are "on pause."

announcement, the U.S. introduced the Inflation Reduction Act (IRA), which offered significant production incentives (as much as US$45per kWh or about US$3,375 / CDN$4,600/ per battery pack based on a typical battery of 75 kWh). In response, Canada altered course. When the Volkswagen (St. Thomas) battery plant was announced later that year, the incentive package it received was designed to mirror U.S. production credits. Subsequently, LG–Stellantis sought similar treatment, suspending work until revised terms were agreed. A third project, by Northvolt in Québec, followed the same approach (Mordue & Vallejo, 2024). As summarized in Table 3, the three plants were valued at approximately $19 billion with 165 GWh of aggregate capacity (that means 2.2 million 75 kWh packs at full utilization). On a utilization-contingent basis, estimated public costs ranged from $40.63 billion (75% utilization) to $47.28 billion (100%) (Mordue & Vallejo, 2024).

Table 3

Direct Incentives for Battery Plants: by Firm

	LG-STELLANTIS ($ BILLION)		VOLKSWAGEN ($ BILLION)		NORTHVOLT ($ BILLION)	
	Potential (100% capacity)	Anticipated (75% capacity)	Potential (100 capacity)	Anticipated (75% capacity)	Potential (100 capacity)	Anticipated (75% capacity)
Capital Incentives: Canada	0.5	0.5	0.7	0.7	1.34	1.34
Capital Incentives: Province (Ontario or Quebec)	0.5	0.5	0.5	0.5	1.37	1.37
Production Incentives	15 (capped)	13.32	15.17	11.38	4.6 (capped)	4.6 (capped)
Tax Adjustment	3.28	2.91	3.32	2.49	1.0	1.0
Total Incentives: by Firm	19.28	17.23	19.69	15.07	8.31	8.31
Planned Investment	5		7		7	
Ratio: Incentives to Investment	3.86:1	3.45:1	2.81:1	2.15:1	1.19:1	1.19:1

***Source**: Mordue and Vallejo (2024)*

Subsequent developments altered these expectations: Stellantis exited the Windsor partnership (with LG proceeding independently). Northvolt entered bankruptcy, so the Québec project will not proceed and associated public spending will not occur. A slower-than-anticipated North American EV transition implies lower volumes at Windsor and St. Thomas, reducing realized production incentives and tax adjustments relative to earlier projections.

Summary

Canada's trajectory since the early 2020s has combined the regularization of incentives for model changes, support for a single new assembly plant, the 2009 crisis-era outlays, and an unceasing record of decline. More recently, it has demonstrated a willingness to match U.S. production incentives for battery manufacturing. Cumulatively, these choices translate into direct commitments exceeding $50 billion for major automotive projects in the post-2000 period, the majority concentrated in the 2022–2024 window. The strategy secured marquee announcements and preserved options, but ultimate outcomes remain contingent on realized utilization, product allocations, and the pace of market adoption.

6. INDUSTRIAL POLICY OPTIONS FOR CANADA'S AUTOMOTIVE SECTOR

Overview

The global and North American automotive sectors are entering a period of deep uncertainty marked by intensified U.S. tariff activity, the entry of new global competitors, and the forthcoming 2026 joint review of the Canada–United States–Mexico Agreement (CUSMA). These pressures coincide with rapid technological change (e.g. electrification and the shift to software-defined vehicles) which has further destabilized established production and trade arrangements. In this context, Canada is obliged to reassess and recalibrate its automotive industrial policy strategy.

The options examined in this section are grounded in the geopolitical, economic, and technological conditions shaping the contemporary industry and in the structural constraints identified throughout this report. Here, eight automotive industrial policy strategies are examined. Four are presented with caution. They reflect strategies grounded in flawed or incomplete assumptions about Canada's position within the North American automotive political economy and carry a heightened risk of costly miscalculation if pursued. We then turn to four strategies that offer more plausible pathways for sustaining competitiveness and resilience amid heightened uncertainty. Although presented as distinct options, many are mutually reinforcing, underscoring that effective industrial policy typically operates through coordinated interventions across regulatory, fiscal, technological, and trade domains rather than as isolated measures.

Our analysis proceeds from the premise that Canada occupies a Semi-peripheral position within the automotive political economy, a position that imposes durable constraints on policy choice. From this perspective, we reject strategies aimed at "graduating" to core industrial status through the creation of a domestically headquartered automaker. We suggest that doing so underestimates both the capital intensity of global automotive competition and the institutional, fiscal, and political limits on Canada's capacity to sustain the long-term effort required to build and scale a competitive operation. Semi-peripheral status also counsels against overbidding for production mandates, a consequence of Canada being structurally less able to capture the spillover benefits realized in core automotive economies.

Instead, we argue for prioritizing the stabilization of existing continental production and trade arrangements while selectively developing geopolitical hedges that expand strategic flexibility through diversified trade and investment relationships. We also contend that rather than pursuing broad-based ambitions to anchor full-scope automotive R&D ecosystems domestically, Canada's industrial policy should prioritize targeted and strategically embedded innovation activities that align with its position in continental and global value chains. Finally, we highlight vulnerabilities within Canada's domestic OEM base—now dominated by non-Detroit Three manufacturers—and explain why sustained production by firms such as Toyota and Honda during the current disruption should not be interpreted as a long-term vote of confidence.

a) Cautions

1. The Urge to Overpay and the Limits of Industrial Policy in a Semi-peripheral Automotive Economy

As illustrated earlier (Figure 6, Architecture of the Global Automotive Industry), Canada holds a Semi-peripheral position in the global automotive hierarchy, fundamentally distinct from the sector's Core. Core economies, like the United States, Japan, Germany, China, and South Korea, derive competitive strength from domestically headquartered automakers, whose decisions govern value-chain functions, including production mandates, technology platforms, and research priorities. Within North America, the United States occupies the position of Core. In contrast, the Integrated Periphery is characterized by lower-cost jurisdictions—in North America, that's Mexico—which compete through labour cost advantages and as such, gain extensive mandates for vehicle assembly.

Canada's longstanding reliance on direct financial incentives to secure or retain automotive production reflects this structural reality. Its record post-2000 shows that it has chosen to *not* relinquish manufacturing mandates to either the low-cost Integrated Periphery or Core automotive nations, even though doing so requires significant public expenditures. As shown earlier, Canada's Semi-peripheral status means that preserving capabilities associated with both the Core (e.g., vehicle assembly plus most high order functions) *and* the Integrated Periphery (e.g., large-scale assembly) necessitates substantial inducements. These pressures intensified dramatically following the introduction of the U.S. Inflation Reduction Act (IRA), which created unprecedented cost advantages for battery and EV manufacturing within the U.S.

Canada's decision to adopt several of the IRA's most expensive features, especially production support for battery cell and module manufacturing, combined with tax-equivalency provisions, signalled a determination to maintain its manufacturing base, even at high cost. Political rhetoric has occasionally interpreted these policy moves as catalytic steps toward transforming Canada into a Core player. Terms such as "Electric Vehicle Superpower" (McClearn, 2023; Trescases, 2023) and aspirations to build a fully vertically integrated EV supply chain "from mines to mobility" reflect this ambition. Yet the global value-chain (GVC) literature cautions that *the ability to participate in sophisticated segments of a value chain does not necessarily translate into control over them*. Lead firm governance remains concentrated in headquarters economies (Özatağan, 2011; Awate et al., 2014; Gereffi & Fernandez-Stark, 2016). In other words, capability does not equate to authority. A policy tool that enables Canada to attract high-value activities does not grant Canada the structural leverage that Core countries possess.

Thus, Canada's adoption of IRA-style incentives should be understood not as a route to structural transformation, but as a costly mechanism for prolonging or stabilizing its existing tier in the automotive hierarchy. Emulating U.S. industrial policy cannot replicate U.S. outcomes. While the IRA would have strengthened a vertically integrated domestic ecosystem in the United States, comparable effects are unlikely to materialize in Canada because Canada does not control the governance structures that allocate production mandates, platform architectures, or R&D functions.

The scale of recent Canadian incentives underscores these limits. Even an investment of roughly $40 billion for three battery plants is insufficient to propel Canada into the Core. Without a domestic automaker—nor the prospect of major battery firms relocating their highest-order functions—Canada remains structurally dependent on decisions made abroad.

The policy implication is clear: Canada must instill discipline in incentive deployment. (For context: The current market value of firms like General Motors, Volkswagen, Ford, and Stellantis is in the same range as the public subsidies Canadian governments pledged for battery-plant projects.) While incentives can safeguard production and win episodic successes, they cannot alter Canada's structural position without a domestic lead firm. Policymakers should therefore temper expectations, avoid overspending, and resist interpreting selective wins as indicators of a Core-level industrial transition.

2. Limited R&D Opportunities in Semi-peripheral Countries

The structural concentration of high-order automotive R&D in headquarters regions presents another challenge for Canada. As explained in earlier sections, innovation mandates—especially those related to platform engineering, advanced propulsion systems, autonomy, and vehicle-architecture design—cluster overwhelmingly near automakers' home bases (Detroit, Tokyo, Stuttgart, Seoul, etc.). This remains true despite decades of supply-chain and production integration, despite Ontario's geographical proximity to Detroit, despite the presence of major Tier-1 supplier headquarters in Canada, and despite Canada's highly educated workforce.

Simply put, Canada has attempted to attract headquarters-level activities for decades, and results have not matched ambitions. Investors, including automakers and Tier-1 suppliers, consistently prefer to locate core R&D functions near OEM headquarters ecosystems, where engineering talent, complementary suppliers, managerial oversight, and strategic decision-making reside. This pattern is not accidental but structural.

Certainly, Canada can point to notable instances of technological accomplishment. BlackBerry's QNX operating system, for example, is deployed by major global automakers to support safety-critical functions in modern, software-defined vehicles. Multimatic, drawing on proprietary composite manufacturing techniques and motorsport-derived engineering expertise, has established itself as an innovator in lightweight chassis and carbon-fibre structural systems. Similarly, Waabi is advancing a human-like, end-to-end autonomous-driving architecture supported by advanced neural-simulation capabilities, enabling scalable and safety-verified autonomy with substantially reduced reliance on real-world testing. These cases illustrate that Canadian firms and researchers are producing work of exceptional quality.

However, while achievements of this kind merit continued support and recognition, a careful examination of historical patterns and institutional trajectories suggests that they remain exceptions rather than indicators of a broader structural shift. The likelihood that large-scale, headquarters-level innovation mandates will relocate to Canada remains low, as does the prospect of the country's automotive industry transitioning to a more research-intensive industrial profile. Failing to acknowledge these constraints risks encouraging the mis-allocation of public resources and the pursuit of policy objectives that are unlikely to be attainable.

3. Vulnerability in the OEM Base: Toyota and Honda

Earlier, we emphasized how industrial policy decisions taken in the 1980s enabled Japanese automakers to establish a durable presence in Canada. These investments now form the backbone of Canada's automotive output: Toyota and Honda together accounted for 77% of Canada's 2025 vehicle production. In sharp contrast, Detroit Three (D3) production has eroded dramatically. Thus, Toyota and Honda form the de facto foundation of Canada's automotive manufacturing base.

Policy makers should not assume Toyota's and Honda's continued presence is secure.

The U.S. statutory tariff is 25%, currently applied only to the non-U.S. content of Canadian-assembled vehicles. With typical U.S. content of Canadian-built cars at around 50%, the implied tariff is roughly 12.5%, or about $6,250 per vehicle. For the approximately 830,000 vehicles Toyota and Honda export to the U.S. each year (about 90% of their Canadian output), the annual tariff burden exceeds $5 billion.

In 2025, Stellantis moved production planned for its Brampton plant to Illinois and GM moved production of one shift of pickup trucks from its Oshawa plant to a U.S. plant. Unlike the D3, Toyota and Honda have little or no idle U.S. production capacity to which they can reallocate volumes quickly. Over the longer term, however, they do have flexibility (by building or expanding assembly operations in the U.S.). That makes Honda's and Toyota's Canadian production footprints vulnerable.

In April 2025, Canada introduced a duty-remission program that granted automakers a quota of U.S.-made, CUSMA-compliant vehicles they may import into Canada tariff-free, but only if they maintain Canadian production and investment commitments. That program was expanded in 2026, creating performance-based relief, offering firms some flexibility and limited transferability of remission entitlements. That means companies like Toyota and Honda, which make more vehicles in Canada than they sell in Canada (or import), are able to sell credits to firms that do not share their profile.

These measures help offset a small portion of tariff burdens. However, they are insufficient as a long term foundation. Ultimately, to preserve its automotive base, Canada requires predictable, durable North American trade rules, particularly through a stable CUSMA.

4. Conflating Domestic Market Aspirations ("we want Canadians to buy EVs") with the Strategic Imperatives of Automotive Production ("we want to keep Canadians autoworkers employed")

A critical consideration for any Canadian automotive industrial policy is the analytical distinction between the domestic market for automobiles and the structural determinants of automotive production within Canada. To emphasize: this report addresses industrial policy—namely, the conditions that shape firm-level investment and production allocation. This suggests that aspirational characteristics regarding Canadian vehicle demand are inconsequential. The distinction is fundamental. Canada constitutes a relatively modest automotive market within the global industry. *No vehicle model sold domestically achieves volumes remotely sufficient to justify an assembly program predicated on Canadian demand alone*. The longstanding export orientation of Canadian production (about 90% of output is exported) underscores the extent to which the viability of Canadian assembly hinges on integration into wider North American and global networks.

Policy misalignment emerges when market objectives—such as accelerating EV adoption—are conflated with production objectives (e.g. the retention of high-volume assembly capacity and the maintenance of stable, skilled employment). When Canadian policy blurs the lines between these dynamics, when policymakers confuse industrial policy objectives with market aspirations, industrial dislocation can occur.

Recent Canadian experience illustrates the risks: The transition at General Motors' Ingersoll assembly plant from the high-volume internal-combustion Equinox to the BrightDrop EV delivery van precipitated a calamitous decline in output, falling from roughly 250,000 units per year to fewer than 1,000. Similar challenges have materialized at Ford's Oakville facility where prolonged ambiguity surrounding various EV product assignments has resulted in an extended operational pause. In short, Canada incentivized a transition to EV production (about 5% of the market) when 95% of the market wanted ICE-powered vehicles.

Disciplined industrial policy must therefore avoid conflating production strategy with domestic market aspirations. While EV penetration will undoubtedly increase over time, right now, in North America at least, ICE and hybrid vehicles still dominate. *The*

policy challenge, therefore, is to manage the transition toward electrification in a manner that maximizes Canadian production and employment during this interregnum, while preparing the institutional, supply-chain, and technological foundations to remain competitive once EV demand and OEM product pipelines converge.

b) Strategies to Consider

The current environment, marked by technological churn, shifting trade rules, and volatile U.S. policy, requires Canada to articulate what it seeks to achieve, not merely what it intends to do. Instruments will necessarily evolve; objectives should endure. In that spirit, the objectives below define the outcomes against which any mix of tools should be judged. The strategies that follow represent means to advance these ends; they are not ends in themselves.

1. **Preserve and expand Canada's automotive manufacturing base:** Maintain and strengthen a substantial final-assembly footprint capable of anchoring supplier ecosystems, sustaining regional economies, and supporting middle-income employment.

2. **Strengthen Canada's position as a reliable, competitive partner within North American production networks:** Secure Canada's role inside a predictable, rules-based continental system so that OEMs view Canada as a low-risk, high-reliability location for long-cycle investments.

3. **Be able to participate meaningfully in the EV and battery transition while retaining options:** Build and preserve capabilities needed for electrification without prematurely abandoning profitable ICE and hybrid production during the transition period.

4. **Reduce structural vulnerabilities to external policy shocks:** Mitigate exposure to U.S. trade and industrial-policy swings by securing stable continental rules and, where prudent, cultivating diversified pathways for market access and investment.

The four strategy families that follow should be read as interdependent levers. Each is valuable only insofar as it advances one or more of the objectives described above.

1. Perpetuate the Continental Alliance via CUSMA

The CUSMA's first mandatory joint review arrives on July 1, 2026. The current structure requires that by July 1, the three governments must decide whether to extend the agreement for another 16 years (to 2042). If the extension is not secured, CUSMA moves to annual reviews until its expiry in 2036. Crucially, any party may withdraw from CUSMA with six months' notice, meaning the agreement could effectively unravel much sooner, potentially by late 2026.

Given the volatility of U.S. trade policy, the review period is widely recognized as a critical inflection point.

Why Extension Should Be Canada's Top Priority

First, CUSMA extension would preserve six decades of stable North American automotive integration. Stability reduces compliance friction, protects sunk investments, and strengthens firms' ability to commit to long-lead investments such as assembly plants and battery facilities.

Second, failing to extend the agreement would create a persistent cloud of uncertainty. Annual reviews until 2036 would erode investor confidence and complicate model planning, retooling cycles, and sourcing decisions.

Third, since 2025 the U.S. has imposed additional import tariffs on vehicles and parts and created new incentives tied to U.S.-only production. These measures increase the gravitational pull of U.S. manufacturing and undermine Canadian competitiveness.

Fourth, the review offers a rare opportunity to clarify Rules of Origin, especially definitions of "core parts" such as batteries, engines, transmissions, and advanced power-train components. Clear, consistent, trilateral rules are essential. Without them, the U.S. may impose unilateral interpretations later, generating unexpected and disruptive compliance costs.

Finally, a successful extension would deliver a political and economic win for all three countries, potentially reducing policy volatility and helping stabilize the investment climate.

Canadian "Red Lines" for a Renegotiated Auto Chapter

Canada should adopt firm negotiating boundaries:

1. **Zero tariffs for CUSMA-compliant autos and parts.** Duty-free access is essential for preserving competitiveness, protecting sunk investments, and maintaining margins in an industry characterized by tight profitability.

2. **Clear, stable, and predictable rules for "core parts."** Any changes should include adequate phase-in periods to avoid mid-program disruption.

3. **Standardized trilateral enforcement of Rules of Origin.** Canada must resist unilateral U.S. auditing practices that impose duplicate costs and create uncertainty.

In sum, CUSMA renewal represents the strongest instrument available to reduce long term uncertainty, sustain supply-chain integration, and support next-generation mandates. However, even with extension, some continued turbulence is likely. Investors will continue to avoid Canada. Regardless, without CUSMA, Canada's position will be substantially weaker.

2. Leverage Geopolitics: Expand Automotive Trade Corridors Beyond North America

Although the U.S. market remains indispensable, the combination of CUSMA uncertainty and escalating U.S. trade volatility makes diversification prudent. Expanding Canada's automotive trade relationships with the EU and the U.K.—where Canada already has established trade frameworks (via CETA and the U.K.–Canada Trade Continuity Agreement) offers a geopolitical hedge.

However, the challenges are substantial. To qualify for tariff-free treatment under these agreements, vehicles must meet rules of origin that require substantial Canada-EU or Canada-U.K. content. Canadian vehicles currently contain almost no EU or U.K. content, making qualification difficult and exposing Canadian-built vehicles to EU/U.K. tariffs of about 10% (about $5,000–$6,000 per vehicle).

Meeting these origin requirements would require:

- Conducting higher-value operations in Canada (battery pack assembly, body-in-white production, major interior/chassis sub-assemblies).
- Integrating imported European components (advanced driver-assistance systems, high-value ECUs, braking systems, thermal-management modules, etc.).

Nevertheless, logistics costs, including roughly $2,000 per vehicle for Atlantic shipping, cannot be ignored.

Potential Sources of New Manufacturing Investment

We consider three sources of potential categories of inward investment:

SOURCE	RATIONALE (FOR AFFECTED FIRMS)	OBSERVATIONS
Chinese Automakers	A tool to leverage market quota. Facilitative of eventual entry to U.S.	Significant early interest. However, there was limited previous interest (pre 2024) when no ceiling on EV (or ICE) imports existed and tariffs were 6.1%. What has changed?
Korean Firms	Auto investment may influence submarine contract	No visible connection between Korean submarine maker and automakers. No mention of autos in Hanwha Ocean submarine bid.
German Firms	Auto investment may influence submarine contract	No visible connection between German submarine maker and automakers. No mention of autos in ThyssenKrupp Marine Systems submarine bid.

Attracting large-scale investment from new investors (Chinese, Korean, or German automakers) is feasible but unconventional. To be meaningful, such investment would require a commitment to operations at scale, ideally an assembly plant capable of producing roughly 200,000 units annually. That volume cannot be supported by the Canadian market alone; it would require a parallel export strategy. Moreover, a smaller operation (Complete Knock Down[3] or niche production) would be unlikely to yield the economic advantages the Government of Canada is seeking.

Because exports to the U.S. are unlikely over the intermediate term, especially for Chinese firms, a viable strategy would need to target the EU and U.K.. Whether such exports would be profitable is uncertain, implying that Canada would need to deploy coordinated industrial policy measures to make the proposition attractive. These could include:

a) **Direct Canadian incentives** to offset cost disadvantages associated with Canada-based production for European markets. (The February federal "auto strategy" earmarked $3 billion. Presumably, the Government of Ontario would match the federal commitment.)

b) **Adjusting Rules of Origin in Canada-EU and Canada-U.K. trade agreements**, though such renegotiation is improbable given the strategic importance of the automotive sector in those jurisdictions.

c) **Supportive measures/direction from Chinese and/or Korean central governments** to facilitate outward investment and mitigate commercial risk.

3 Complete Knock Down (CKD) production refers to a system in which a manufacturer ships an entire vehicle fully disassembled down to its chassis components, body panels, wiring harnesses, and interior modules to a facility in another country, where it is then reassembled into a finished vehicle.

Even in combination, these measures would not guarantee success, but they will be necessary to make large-scale Chinese, Korean or German production in Canada plausibly viable.

Thus, while extending CUSMA remains Canada's foremost priority, cultivating alternative trade pathways and new sources of investment may offer strategic diversification and enhance Canada's resilience amid geopolitical volatility.

3. Canada-led Joint-Venture OEM Anchored by a Major Supplier

A more unconventional strategy involves establishing a joint-venture OEM led by a major Canadian Tier-1 supplier such as Magna, Linamar, or Martinrea. This model may appear to be more realistic than creating a national automaker from scratch because leading suppliers already possess substantial engineering talent, advanced manufacturing capability, and global relationships.

A joint venture could take various forms. One possibility involves collaboration between a Canadian supplier and a foreign automaker, potentially a Chinese OEM seeking access to Canada and eventually the U.S., or a smaller emerging automaker such as Turkey's Togg (which is currently limited to Europe).

Magna is the most credible candidate, given its existing contract-manufacturing operations through Magna Steyr in Austria, where it assembles vehicles for several global manufacturers, including Mercedes, Toyota, and XPeng.

However, risks remain significant. Contract manufacturing differs greatly from operating a vertically integrated automaker. Additionally, a supplier-led OEM could generate conflicts of interest by pushing suppliers into competition with their own customers and impose enormous capital and organizational demands. Moreover, if such a strategy were viable, leading Canadian suppliers would likely have pursued it earlier, when access to the U.S. market was much more stable.

A scaled-down option—one less prone to conflicts of interest—could involve targeting specialized niches (e.g. CKDs, super-cars, commercial fleets, specialty EVs, off-highway vehicles) but niche volumes cannot deliver the large-scale economic benefits policymakers seek. Also, a CKD operation would be unlikely to represent the "substantial transformation" necessary to avoid tariffs.

Given current U.S. trade volatility, even a joint-venture OEM would face the same challenges as incumbent Canadian producers. Without CUSMA certainty, such an endeavour would require extensive, long term government support.

4. A Homegrown Canadian Automaker

Among the most ambitious—and least feasible—policy options is the creation of a fully homegrown Canadian automaker. The theoretical benefits are significant: a national OEM could anchor engineering ecosystems, create high-quality jobs, foster domestic supplier capabilities, and symbolize a new era of Canadian technological autonomy. The practical obstacles, however, are overwhelming.

Unlike a joint venture leveraging existing capabilities, a homegrown OEM would start with no established product platforms, engineering architecture, global distribution network, emissions-compliance capacity, or brand presence. Automakers are apex system integrators; their capabilities cannot be acquired quickly, nor can decades of knowledge be shortcut simply because EVs seem to offer "lower barriers to entry." In fact, EV development intensifies capital demands through advanced battery chemistry, semiconductor integration, thermal systems, cybersecurity, and Over-the-Air (OTA) software ecosystems.

Market access represents an equally formidable barrier. Historically, any Canadian automaker would rely heavily on U.S. market access for viability. But with current U.S. protectionism, 25% vehicle tariffs, shifting enforcement practices, and the looming 2026 CUSMA review, the environment has become extraordinarily unpredictable. No investor would commit the billions of dollars required for a new automaker under such conditions.

Scale requirements make a homegrown OEM even less feasible. Even established niche automakers struggle to reach profitability without volumes approaching several hundred thousand units annually. Reaching such scale in Canada is unrealistic, especially as global automakers consolidate and reduce capacity.

The fiscal implications are staggering. A homegrown OEM would require sustained multi-decade public support across R&D, capital investment, market development, and consumer incentives. If such a project were feasible without prohibitive cost, Canadian firms would likely have pursued it during more favourable periods.

While niche production is hypothetically possible, such undertakings cannot deliver the elevated benefits sought by policymakers (employment, supplier development, large-scale production). Nor would niche production shield a Canadian automaker from U.S. tariff exposure or rules-of-origin uncertainty.

In short, despite its symbolic appeal, the creation of a Canadian national automaker is not a practical or strategic industrial-policy option in the current geopolitical and economic climate.

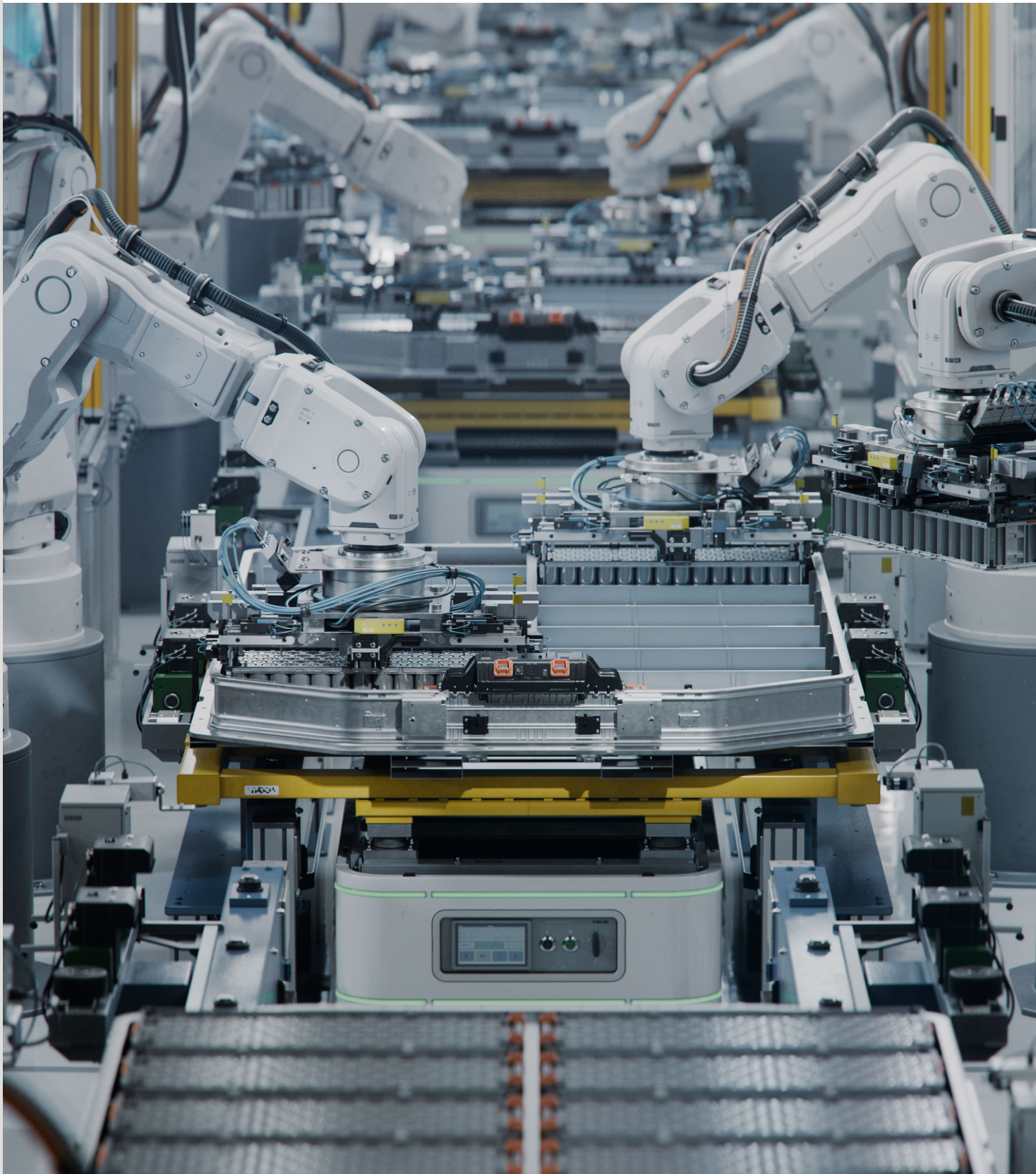
7. CONCLUSION

Canada's automotive sector faces a structural turning point. The evidence presented in this report shows that Canada's position within the North American system has not been undone by recent disruption alone, but by a decades-long realignment of production and investment. Mexico's rise as the region's export hub, and the global shift of assembly toward lower-cost locations have compressed Canada's industrial room to manoeuvre.

Historically, Canada succeeded when it intervened strategically: through early tariff structures, the Auto Pact, the targeted attraction of Japanese automakers, and the creative use of duty remission and investment incentives. These actions shaped industrial outcomes by aligning with the strategic objectives of global lead firms. Yet the post-2000 period has demonstrated the limits of policy when structural headwinds strengthen. R&D performance has stagnated, assembly volumes have declined, and governments have come to rely increasingly on high-cost incentives simply to preserve existing mandates. Recent battery-sector interventions secured prominent announcements. However, those interventions did not alter the country's underlying position in the global automotive hierarchy.

The events that have unfolded throughout 2025–2026 have magnified these long-developing vulnerabilities. What had been a gradual erosion became unmistakable as tariff escalation, shifting U.S. industrial policy instruments, and CUSMA-related uncertainty exposed the depth of Canada's dependence on a continental system now marked by volatility. Canada must therefore navigate an environment in which the stability that underpinned 60 years of integration can no longer be assumed.

These realities sharpen the policy imperative. Canada must approach industrial strategy supporting its auto industry with both ambition and discipline. The options outlined in the final section of this report reflect this balance: prioritize the stabilization of the continental trading framework, avoid overpaying for mandates unlikely to shift structural position, confront vulnerabilities in the OEM base, and build selective geopolitical hedges that expand Canada's strategic flexibility.



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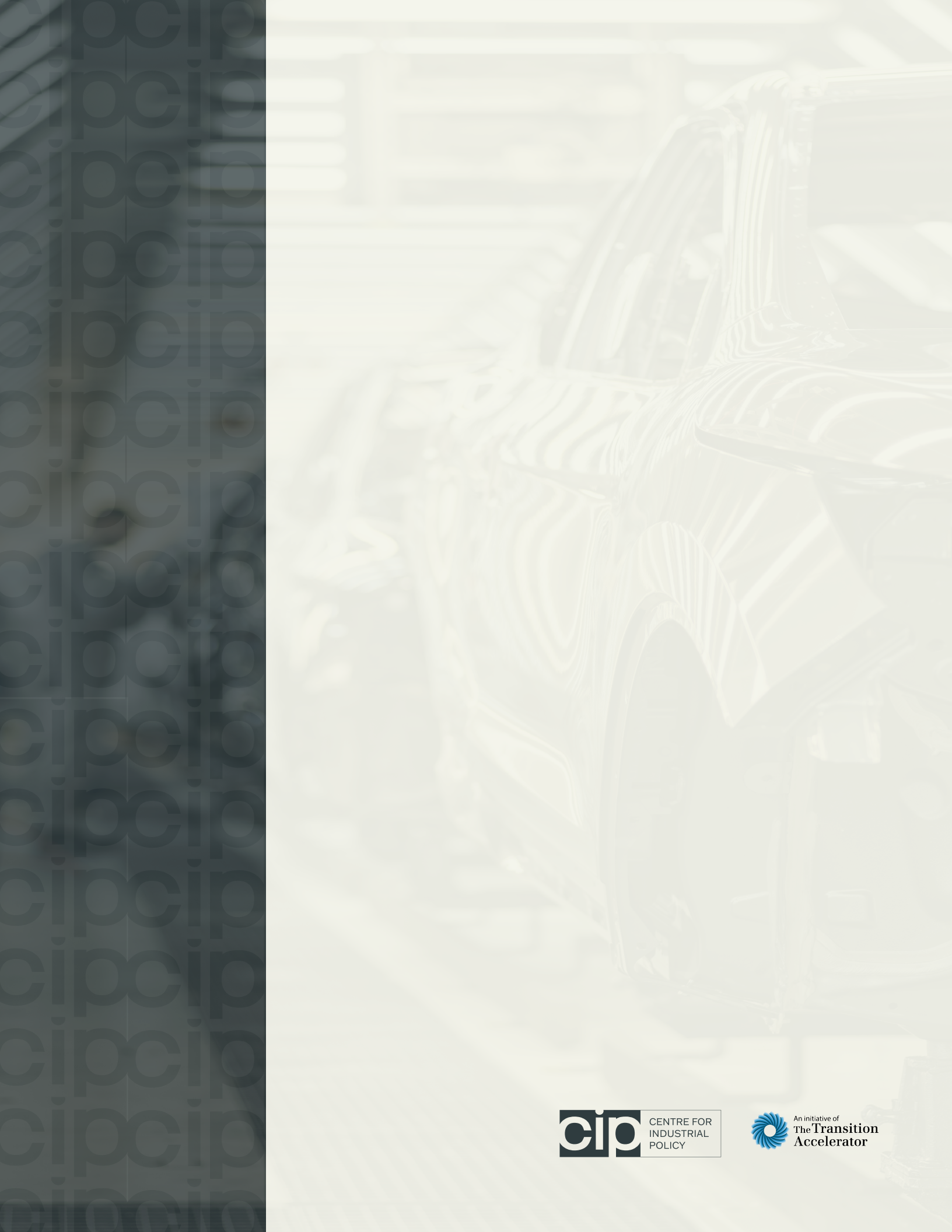

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