# An Integrative Institutional Framework on the Canada-U.S. Business Performance Gap

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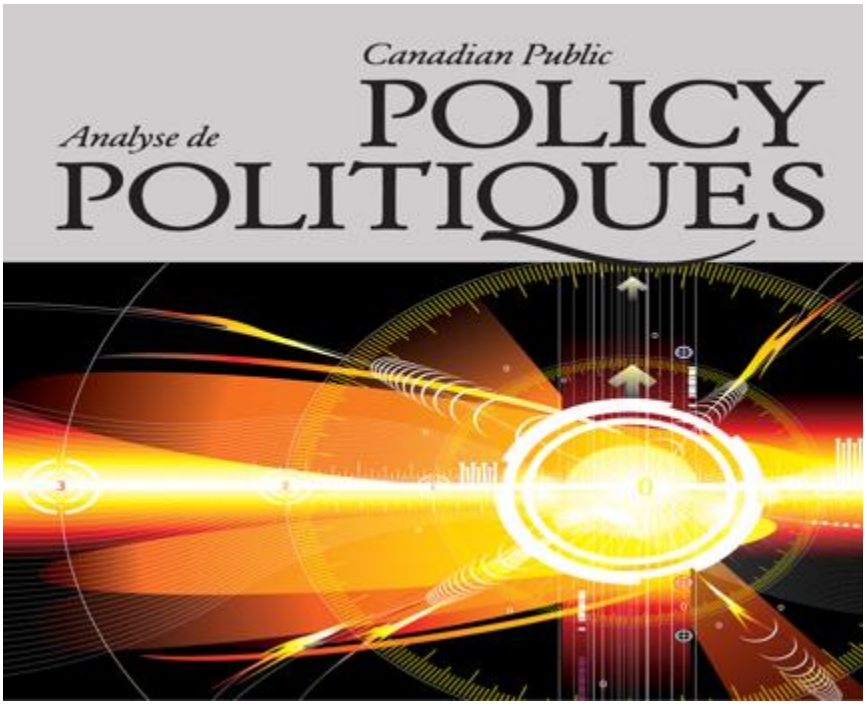


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**Abstract**

Canada is consistently ranked among the best places to live. However, its potential for sustainable prosperity could depend on how well its business sector navigates a rapidly changing world. Canadian companies innovate and export less than their American peers and generate lower returns from such activities. Prior studies have provided insights into different aspects of this underperformance problem. Still, we can gain more helpful insights by synthesizing the distinct views. This article develops an institutional perspective on comparative economic development between Canada and the United States (U.S.). The general thesis posits that initial institutional differences, linked to different separation patterns from British colonial rule, induced distinct path dependencies in the Canadian and U.S. economies. A vital premise is that the U.S. historically adopted more classically liberal mercantilist institutions than Canada. This initial institutional disparity is associated with American firms' nationalistic and profit motives, plus their early attempts to organize and lead global value chains (GVCs). Ultimately, this article presents an integrative institutional framework that links the Canada-U.S. business performance gap to a complex interplay between a trio of institutionally induced gaps at the firm, GVC, and business-leader levels.

**Keywords**: Canada-U.S. business performance gap, global value chains, mercantilist institutions, myopia, path dependence, resource-capability bundles

## An Integrative Institutional Framework on the Canada-U.S. Business Performance Gap

### Introduction

Canada currently supports a high standard of living. Based on its per capita gross domestic product (GDP), it is usually ranked on par with G-7 and affluent OECD countries (Global Affairs Canada 2022). Between 1994 and 2022, various estimates indicate that its GDP per capita was about 20% to 30% lower than the United States (U.S.) (Maynard 2007; International Monetary Fund 2023). In addition to having global financial institutions (i.e., Royal Bank of Canada and Toronto Dominion Bank), it is home to some of the best-performing global companies in energy or natural resources (i.e., Nutrien, Teck Resources, Canadian Natural Resources Ltd., Cenovus Energy Inc., Suncor Energy Inc., Imperial Oil Ltd., and Ovintiv Inc.), manufacturing (i.e., Magna International), information technology (i.e., CGI, Open Text, and Shopify), among other industries (Financial Post Staff 2022). Companies in the natural resource industry have historically made an outsized contribution to Canada's aggregate income growth (Naylor 2006). The prices of this industry's exports can be volatile. However, the average value of exported natural resources has historically exceeded the average cost of imported manufactured goods (Baldwin and Macdonald 2012).

This aggregate economic profile seems to put Canadian businesses on par with many of their peers in other advanced economies. Still, concerns exist about their relative potential to drive economic transformation and sustainable prosperity (Baldwin and Beiling 2015; Deslauriers and Gagné 2023; Nicholson 2018). These concerns partially reflect increasing anxiety over Canada's capacity to simultaneously capitalize on opportunities (i.e., growth opportunities in non-traditional markets, countries, or digitized global value chains) and neutralize threats (i.e., technological shifts, geopolitical risks, and climate change risks) that are

emerging across regional and global markets (Nicholson 2016; Wolfe 2019). Furthermore, there is preliminary evidence that Canada has been growing slower than most advanced economies in terms of real GDP per capita since 2014 (Bartlett and Khan 2023).

Therefore, it is reasonable to ask whether and how Canadian businesses can perform even better in global markets. We already know from prior studies that they lag American companies in critical areas, including research and development (R&D) investments, intellectual property (IP) holdings (i.e., patents, trademarks, industrial designs, and copyright), IP commercialization, and labour productivity (Baldwin, Leung, and Rispoli 2014; Council of Canadian Academies 2009, 2018; Gallini and Hollis 2019; Katz and Raffoul 2021). At the same time, exporting accounts for a relatively large share of Canada's aggregate income—for instance, some estimates indicate that the exports-to-GDP ratios of Canada and the U.S. ranged from 22% to 31% and 6% to 11% between 1970 and 2021, respectively (World Bank 2023). However, prior research suggests that the average Canadian exporter generates a smaller unit value (i.e., profit margin or value-added per exported unit) on a smaller scale (i.e., export volume or quantity) and scope (i.e., the number of export markets, own-brand exports, or export varieties) than the average American exporter (Aier 2021; Bernard et al. 2009; Chen and Yu 2010; OECD 2017; Tapp and Yan 2021). Based on a more contextualized discussion later, actual or potential export returns are expected to be significantly lower for Canadian than American businesses. These insights point to a business underperformance problem: Canadian companies are neither undertaking nor profiting from innovation and export activities at levels that can put Canada on the highest sustainable growth path.

In this article, I address this critical issue by asking how evidence-based insights could be integrated to deepen our understanding of the underperformance problem. There are four notable

perspectives. Starting with a dominant one, some studies have linked the Canada-U.S. gap in business performance to Canada-U.S. gaps in firm-level resources (e.g., human capital, financial capital, machinery and equipment, R&D investments, and IP holdings) and capabilities (i.e., the ability innovatively reconfigure production processes or business operations to improve overall productive efficiency) (Council of Canadian Academies 2009, 2018; Gallini and Hollis 2019; Katz and Raffoul 2021; Ranasinghe 2017; Rao, Tang, and Wang 2008; Tang and Wang 2020).

Other studies suggest that it is also important to contextualize the nature of economic exchanges between Canadian and American firms. Specifically, it matters whether Canadian exporters operate independently in pure arm's length exchanges or participate in global value chains (GVCs) led by American multinational corporations (MNCs) (Martin and Mayneris 2022; Scarffe 2022; Sydor 2007; Van Assche 2012). Canadian exporters can realize productivity gains when they switch from independent export activities to collaborative activities in such GVCs (Baldwin and Yan 2014). However, based on prior GVC research (Alcacer and Oxley 2014; Gereffi 2011; Epede and Wang 2022), the Canada-U.S. gap in business performance could persist if there are Canada-U.S. gaps in GVC positions and functions. In other words, it makes a difference if Canadian businesses primarily specialize in upstream activities (i.e., supply raw materials or intermediate goods) in American-led GVCs.

Given the focus on firm-level and GVC-related sources of disparity in Canada-U.S. business performance, research on individual factors and the broader institutional context is also relevant. Some researchers and public commentators suggest that Canadian and American business leaders vary in certain business practices or personal attributes (e.g., risk tolerance, orientation toward short-termism, and growth aspirations), which could play a role in Canada-U.S. gaps in innovation, exports, and other performance outcomes (Bloom 2011; Council of

Canadian Academies 2009; Deloitte 2011). Meanwhile, other studies seem to link Canada's business performance challenges to institutional factors in the distant past (i.e., the political economy around staple trade or resource concentration in primary industries) (Conesa and Pujolas 2019; Naylor 2006; Watkins 1963), or more recent years (i.e., innovation- or competition-inhibiting business and environmental regulations and laws versus enabling incentives) (Deacon 2023; Denney, Southin, and Wolfe 2023; Deslauriers and Gagné 2023; Hearn 2022; Schwanen 2017; Yamazaki 2022).

This article adds to prior studies by synthesizing the distinct perspectives on the underperformance problem. If Canadian companies have historically struggled to enter or organize superior GVCs in non-primary industries, this problem could become more severe as American global leaders (i.e., Apple, Microsoft, Google, and Amazon), among other global leaders (i.e., Tencent and Alibaba, China; Samsung, South Korea; and SAP, Germany), leverage disruptive information and communication technologies (ICT) to reorganize global production, trade, and investments through digitized GVCs—possibly by deploying data (i.e., big data), advanced technologies (i.e., cloud computing, software as a service (SaaS), artificial intelligence, and machine learning), or global digital platforms (i.e., global two-sided or multi-sided marketplaces), to transform GVCs (i.e., modularize or automate production processes, generate more tradeable services, and track performance) (Butollo and Schneidemesser 2022; Loonam and O'Regan 2022; UNCTAD 2019). Therefore, it is worth exploring historical disparities in Canada-U.S. institutions that have long oriented Canadian businesses toward less advantageous GVC positions and functions. Ultimately, it is essential to deeply understand how institutionally induced gaps at the firm, GVC, and individual levels can jointly impact the gap in Canada-U.S. business performance.

To address these specific issues, this article draws on insights from an institutional perspective on comparative economic development across countries in general (Acemoglu, Johnson, and Robinson 2001; North 1990; Patterson 2019), and particularly in the context of Canada and the U.S. (Mancke 1999; Naylor 2006). The general thesis is that the Canadian and U.S. economies have distinct path dependencies shaped by initial institutional differences.[1] By distinct path dependencies, I mean that they have different histories of preferences, choices, and outcomes that significantly influence their different paths of future economic outcomes (Arthur, 1989; David, 1985; Mahoney, 2000; Puffert, 2002). Historically, the initial institutional differences behind their divergent economic paths arose from the different timing, motives, and related circumstances of their separation from British colonial rule. Furthermore, these initial differences have led to self-perpetuating patterns of Canada-U.S. economic and business developments that still exist today.

The proposed institutional framework has other notable elements. A fundamental premise is that the U.S. started with a more classically liberal version of British mercantilist institutions than Canada. Building on this premise, the framework explores why this initial institutional difference could have engendered more advantageous GVC positions and functions for American than Canadian businesses. Specifically, I argue that American companies and the U.S. government were not as historically anchored to the British mercantile system. Furthermore, I explain why American firms were not only more nationalistically and financially motivated but also more initially focused on establishing superior GVCs. Thus, a vital argument is that American businesses historically made more efforts than Canadian businesses to internationalize and innovate in a business-friendly U.S. environment—characterized by features such as a

market-friendly patent system, lax enforcement of antitrust laws, and debtor- or entrepreneur-friendly bankruptcy laws (e.g., Adams 2021; Khan and Sokoloff 2001).

This argument builds on the premise that the U.S. tolerated less predictable or more extreme inequalities in exchange for accelerated industrial expansion and global dominance (e.g., Adams 2021; Hugill 2009). On the contrary, the institutional framework suggests that Canada had a historically stronger preference for a hierarchical political economy, partially manifested in a hierarchical class system (i.e., a landowning or gentry-like class was historically superior to the merchant class) (e.g., Breckenridge 1895; Naylor 2006; Wilton 2000). While this political-economy preference promised predictable and stable inequalities, it might have undercut Canada's economic dynamism and long-term growth.

A GVC institutional mechanism underpins this historical institutional perspective. This mechanism logically connects prior institutional differences between Canada and the U.S. to subsequent disparities in their GVC orientations and business performance. I provide preliminary evidence to support this mechanism and the general thesis by presenting detailed historical case studies. Precisely, I explore Canada-U.S. GVC disparities in the context of the 19$^{th}$-century- and 20th-century merchant shipping and automotive industries. Finally, I conceptualize the Canada-U.S. business performance gap as a complex interplay between this trio of institutionally induced gaps: (a) business resource-capability bundles, (b) GVC positions and functions, and (c) business leader myopia in contemporary GVCs.

In the next section, I will review the relevant institutional economics literature to establish a comparative Canada-U.S. institutional framework. After doing so, I will connect this framework to an institutional mechanism that operates through GVCs in the context of colonial and post-colonial industries (i.e., merchant shipping industry versus primary industries in the 19$^{th}$

century and the 20th-century automotive industry). Next, I will extend this institutional framework by linking the gap in Canada-U.S. business performance to the three articulated trio of Canada-U.S. gaps. In the final section, I will conclude by briefly discussing the framework's theoretical and practical implications.

## A Comparative Institutional Framework on Canada and the United States

Institutions are generally conceptualized as the *rules of the game* (North 1990). When these rules are associated with economic institutions, they constitute formal or informal laws, regulations, and governance structures that enable or constrain people's economic choices and behaviours (Acemoglu, Johnson, and Robinson 2001). This economic dimension of institutions corresponds to what some sociologists would categorize as the *regulative dimension* of institutions, which is conceptually different from two other dimensions, namely, the *normative* dimension (i.e., social standards, values, or expectations that determine what counts as acceptable or legitimate behaviours or practices) and the *cognitive* dimension (i.e., shared mental representations or understanding of how the world works) (Scott 1995). What should be clear is that economic institutions are presumed to underpin a country's incentive structure.

According to the conventional institutional view on comparative economic development, countries can economically outperform their peers over the long run if they start with economic institutions that engender superior incentive structures (Robinson, Acemoglu, and Johnson 2005). A recent refinement of this view suggests that a country's long-run economic gains from existing institutions could partially depend on its institutional competence—which can be conceptualized as a country's ability to implement a combination or sequence of rules or processes (i.e., economic management and political governance processes) in ways that yield a comparative advantage (e.g., Patterson 2019). An institutionally competent country does not only

know how best to play a political-economy game with other countries under existing economic institutions, but it can also transform these institutions to alter the game in advantageous ways (Patterson 2019).

**Relevant Economic Institutional Characteristics of Canada and the United States**

An institutional lens with these basic tenets could be applied to explain why the gap in Canada-U.S. business performance has emerged and persisted for over a century. Drawing on a synthesis of prior relevant studies, Table 1 presents a framework that describes and compares the historical economic institutions of Canada and the U.S. It is essential to recognize the multi-dimensional nature of these institutions. Since the first dimension (i.e., the nature of economic institutional origins) lays the foundation for the other three dimensions, I will discuss the first more extensively in the next section.

[**INSERT TABLE 1 HERE**]

***Canada's Dominant British Mercantilist Institutions***

Canada has French and British (English) colonial origins.[2] Starting with the French in the early 16th century, it would later switch to British colonial rule after Britain defeated the French on the battlefield (i.e., Seven Years' War, 1756–1763) (Anderson 2000; Fowler 2005). This British-French colonial heritage influenced Canada's political economy in distinct ways. Between the U.S.-British War of 1812-1815 and the Upper-Lower Canada Rebellions (i.e., democratic reform movements) of 1837–1838, there were two isolated groups of political elites with a strong anglophone, Anglican or pro-Church of England, and Loyalist background. On the one hand, a wealthy landowning class (i.e., Family Compact) controlled the Britain-appointed lieutenant-governor's executive and legislative councils in Upper Canada (i.e., present-day Ontario, with an Anglo-Protestant-majority population) (Mills 1988). On the other hand, a

wealthy merchant class (i.e., Château Clique) dominated similar political institutions in Lower Canada (i.e., present-day Quebec, with a French- and Catholic-majority population) (Ouellet 1980).

They are analogous to the landed gentry and less privileged merchant classes in the hierarchical class system that historically ordered Britain's political economy (Wilton 2000). Ontario's gentry-like elites favoured this class system and embraced Britain-directed governance instead of responsible government (i.e., elected assembly or parliamentary democracy) (Wilton 2000). Meanwhile, Quebec's Anglo-merchant elites wanted to assimilate it more fully into the British North American colonies in the following ways: replacing French civil law with English common law; shifting from a semi-feudal or seigneurial system (i.e., a land distribution system in which small farmers or other tenants can only partially own or profit from land controlled by seigneurs or colonial elites) to a freehold tenure system (i.e., a land distribution system characterized by the assignment of full rights to privately owned land), which Ontario had already adopted under the 1791 Constitutional Act; and making the Anglican church more dominant than the Catholic church in Quebec (Harris, 1984; Ouellet 1980).

Against this backdrop, Canada had a long and slow negotiated path to independence. Its initial Constitution was created under the 1867 British North America (BNA) Act—which the British parliament passed to develop Canada as a federation or Dominion comprising Ontario, Quebec, Nova Scotia, and New Brunswick (Dodek 2016; Harder and Patten 2015). However, this BNA Act only granted this Dominion autonomy in its internal affairs, which meant Britain was still responsible for its foreign affairs (Dodek 2016). Canada would take the 1931 Statute of Westminster to achieve complete legal separation from Britain (Harder and Patten 2015). Even so, Canada's use of Britain's Royal Union flag (i.e., Canadian Red Ensign) persisted after

Confederation in 1867 to 1965, when it adopted its national flag with a maple leaf symbol (Matheson 1986). In addition, its post-independence constitution would be fully established under the 1982 Constitution Act—which involved the creation of a Canadian constitution that is governed by only Canadian laws (as opposed to English laws or the British parliament), the adoption of terms for amending this constitution, along with a Canadian Charter of Rights and Freedoms (i.e., freedom of expressions and the right to vote) (Dodek 2016; Kennedy and Friedland 2014).

Under these circumstances, Britain's mercantile system would considerably shape Canada's initial economic institutions. Based on Adam Smith's *Wealth of Nations* (1776) and more recent research (e.g., Barth 2016; Stern and Wennerlind 2013), we get an early view of this mercantile system as a distinct form of political economy: it not only rests on a zero-sum view of wealth creation across nations (i.e., one nation must accumulate a trade surplus at the expense of another nation), but also selectively distributes wealth and privileges based on formally and informally established social and political hierarchies (i.e., laws, regulations and social sanctions or customs are instrumentally used to enrich, empower, and protect political and economic elites). Therefore, it is reasonable to broadly conceptualize British mercantilism as a set of intertwined mercantilist institutions that span the economic, social, and political spheres. However, Adam Smith vehemently opposed such mercantilist institutions or the broader mercantile system. On the contrary, his laissez-faire doctrine advocated for free trade and competitive markets across independent countries as better strategies for achieving national economic prosperity (Caton 1985).

There are some notable mercantilist institutional dimensions in the Canadian context. Consider the Navigation Acts from the mid-1600s. These Acts involved sweeping restrictions on

colonial shipping, port, and trade activities—including the mandatory use of British ships, ban against imports outside Britain, compulsory export of essential staples (i.e., fur, timber, fish, and wheat) to Britain, and the requirement that foreign vessels use British ports instead of colonial ports (Ranson 1968; Sawers 1992). Anti-competition regulations also accompanied these Acts. These regulations span the subsidies, tariffs, and monopoly licenses (i.e., licenses issued to the state-chartered Hudson Bay Company and the East India Company), among other regulatory instruments, that Britain historically deployed to drive colonial expansion, secure colonial resources and coercively govern colonial trade and industrial activities (Bogart 2015; Hamilton 1948).

Based on prior research (Naylor 2006), Britain could also indirectly control the Canadian economy by making the Canadian financial system predominantly finance colonial trade (i.e., Canada's export of staples to Britain and import of manufactured goods from it). In addition to establishing chartered banks (i.e., Bank of New Brunswick and the Bank of Montreal in 1820 and 1822), it could accomplish this by prioritizing funding to staple exporters, domestic agricultural or natural resource operations, and staple-related infrastructure developments (i.e., intercolonial rail transport system) (Breckenridge 1895; Naylor 2006).

There are three other essential but less examined dimensions of Canada's early British mercantilist institutions. The first one involves Britain's creditor-friendly bankruptcy laws, traced back to the highly punitive laws against debtors in Ancient Greece and Ancient Rome between 600 B.C. and 400 B.C. (Weisweiler 2022). According to historians (Sidney 1973; Weisweiler 2022), Ancient Greek laws not only once put unsettled debt on par with murder but also permitted inhumane settlement terms, such as the sale of debtors' children as enslaved people to creditors. Similarly, Ancient Roman laws allowed creditors to accept borrowers as a

personal form of collateral, with the option to kill, sell, or enslave them if they failed to repay outstanding loans.

More than sixteen centuries later, an emergent British kingdom would establish a legal system with this creditor-friendly attribute. Even in Victorian or 19th-century Britain, unpaid taxes or unsettled bills of credit were still widely perceived as signs of irresponsibility, misfortunate, imprudent risk-taking, or even moral failure (Finn 2003; Sgard 2006). Furthermore, such unpaid debt could land debtors in prison without being absolved of their obligations (Ware 2014). Working-class debtors were especially at risk. Sometimes, debtors with assets hardly fared better. They could face financial ruin because their assets could be confiscated and auctioned to settle the debt. Going into the twentieth century, British merchants and eventually non-merchants and others would benefit from bankruptcy reforms, including the passage of the 1869 Debtors Act in Britain—which banned punishment for unpaid debt in the form of imprisonment (Lipstein 1949; Sgard 2006). However, considering Britain's longstanding aristocratic class system (Goñi 2023), the negative perception of indebted or failed entrepreneurs probably persisted much longer in Britain.

Canada could have had similar creditor-friendly bankruptcy laws and persistent negative debtor perceptions. English law has long influenced Canadian corporate law, especially in Ontario (e.g., Hutchinson 2020). In the case of insolvency or bankruptcy laws, the previously described group of wealthy and powerful landowning elites deserves special attention: their economic interests (i.e., collection of rental income from landless lower-class tenants or farmers) could be better served through the adoption of punitive laws against debtors with unpaid credit bills. Even in the early 1860s, the lack of broadly enforceable bankruptcy or insolvency laws across Ontario and Quebec meant that it was still possible to face imprisonment or jail time for

unpaid debt in Canada (Girard, Phillips, and Brown 2018). The passage of a broadly applied 1864 Insolvency Act had the potential to make a difference (Girard et al. 2018). However, a subsequently powerful movement, including landowning elites, sought to undermine bankruptcy protection for debtors or businesses (Telfer 2010). This movement eventually prevailed with the repeal of the Insolvency Act in 1880 (Girard et al. 2018; Telfer 2010). Debtors and entrepreneurs would have to wait until the early 20th century for more robust protection under the 1919 Bankruptcy Act (Telfer 2014).

In addition to creditor-friendly laws, Canada probably inherited Britain's historically market-unfriendly patent system (Coleman 1976). According to economic historians (Gomme 1946; Khan 2005), Britain's seventeen-to-nineteenth century patent system was elitist. In other words, it primarily operated in the service of socio-political interests than purely economic ones. This view is consistent with the historically substantial weight that the British monarchy would place on patent awardees' socioeconomic status (i.e., aristocratic or upper-class background) or the monarchy's imperial objectives (i.e., the quest to monopolize certain commercial activities across existing or potential British colonies). Furthermore, the patent system was characterized by high fees, excessive bureaucratic filing procedures, and weak private property rights for ordinary patent awardees (Khan 2005). Since English law significantly influenced Canadian corporate law (Hutchinson 2020), these market-unfriendly aspects of Britain's patent system could have historically shaped Canada's patent system.

Finally, Canada has had a historically weak nationalistic orientation in the political-economy domain. Based on prior research (Mancke 1999), it has been collectively or nationally inclined to negotiate bilateral or multiparty agreements when its economic and political interests are at odds with the interests of other nations. Prior research appears to support this view by

highlighting *internationalism* (i.e., a country's willingness to accommodate inter-state planning and actions in the politico-economic domain), *multilateralism* (i.e., a cooperative approach to national problem-solving through the United Nations, World Bank, and other multilateral organizations), and *peacekeeping* (i.e., interventions or governance practices that prioritize security and conflict-resolution strategies that can prevent war and preserve the peaceful co-existence of nations) as dominant aspects of Canada's foreign policies (Keating 2010; Matheson 2020; Munton and Keating 2001).

Its weak economic or political nationalism could also reflect the pluralistic democratic tradition that emerged from the distinct circumstances surrounding its long, non-revolutionary path to independence from British colonial rule (Albert and Cameron 2017; Wade 1960). The core challenge was securing economic and political autonomy and negotiating a new Dominion with a British-French duality (Albert and Cameron 2017). Political and economic elites (i.e., Britain's Lord Durham, Ontario's Family Compact, and Quebec's Château Clique) had different political preferences at the time. Still, pluralistic democratic principles prevailed, calling for preserving this duality rather than forcing Quebec's French population to assimilate into Ontario's English traditions.

***America's More Classically Liberal Mercantilist Institutions***

Contrary to Canada's mix of French and British colonial origins, the latter primarily shaped America's economic institutions through thirteen colonies on the Atlantic Coast from the 16$^{th}$ century (Greene 2000; Taylor 2017). Canadian and American early political elites also had different class backgrounds. Unlike the isolated ruling landowning and merchant classes that dominated Ontario's and Quebec's political economy in the early 19$^{th}$ century (Mills 1988), America's Founding Fathers, or framers of its constitution, belonged to a powerful mixed class

of wealthy landowners and merchants—including Thomas Jefferson, George Washington (America's first president), John Adams, Benjamin Franklin, John Hancock, and Robert Morris (Randall 2022). Their business interests (i.e., John Hancock and Robert Morris owned shipbuilding businesses), pragmatic approaches, and shifting alliances probably influenced some of their political and military aspirations and decisions (Ellis 2002; Randall 2022). For example, since John Hancock and Robert Morris owned shipbuilding businesses in Massachusetts and Pennsylvania, they would be especially concerned about British-imposed restrictions on colonial shipping activities in the 1700s.

By the 1770s, these two American colonies, among others, would become highly disgruntled over Britain's efforts to raise revenue from new colonial taxes (i.e., tax on legal documents and imported tea under the Stamp Act and Tea Act), coupled with its restrictive Navigation Acts (Ransom 1968; Sawers 1992; Taylor 2017). This widespread discontent would escalate into a series of dramatic events that initiated a shorter and faster revolutionary path to independence compared to the gradually negotiated process between Canada and Britain almost nine decades later. After launching the American Revolutionary War in 1775, the American colonies declared their independence in 1776 and secured it at the war's end in 1783 (Taylor 2017). However, mob rule at home and pending conflicts abroad had probably put the U.S. on a more uncertain or failure-prone economic path than Canada (Taylor 2017). In other words, hardly anyone in the late 1700s could have reasonably expected the U.S. to become an economic hegemon in the 20$^{th}$ century.

Still, its revolutionary path to independence was promising. From an ideological or philosophical perspective, it was inspired by a fusion of classical or Lockean liberal ideology (i.e., an emphasis on individualism, liberty, equal rights, property rights, and limited

government) with specific British mercantilist institutions (Appleby 1978; Dworetz 1990; Williams 1958). However, as discussed later, the libertarian vision of America's Founding Fathers would inadequately serve the underprivileged (i.e., the poor, uneducated, and women) in the past. Even worse, this vision would completely exclude enslaved people (i.e., Africans and African Americans).

Americanized and British mercantilist institutions shared some common elements (Greene 2000). Consistent with this view, the U.S. has historically deployed trade regulations (i.e., export and import restrictions plus high tariffs on imports in selected industries), anti-competition regulations (i.e., implicit accommodation of large multinational corporations through the weak enforcement of antitrust laws), and financial control structures (i.e., centralized public finances, use of a uniform unit of account, and a strong central bank) (Adams 2021; Mancke 1999; Sylla and Wright 2019). Notably, the U.S. almost doubled its land mass by purchasing Louisiana from the French in 1803 under mutually acceptable terms (Levinson 2005). Empire-building aspirations were behind these and other initiatives (Adams 2021; Williams 1958).

However, there are notable liberal aspects of American mercantilist institutions that set them favourably apart from British mercantilist institutions. The liberal dimension was partially reflected in America's early promise as a democratic republic versus a monarchy. Put another way, American mercantilism had the potential to accommodate greater demands for economic and political freedom at the individual level, at least compared to what was conceivable under Britain's imperial state or rigid socio-political hierarchies (Mancke 1999; Williams 1958). This is important because prior research has positively linked measures of countries' economic freedom with their long-run growth performance (De Haan and Sturm, 2000; Doucouliagos

and Ulubasoglu 2008; Gwartney, Lawson, and Block 1996; Gwartney, Lawson, and Holcombe 1999).

The U.S. also departed from Britain's historically costly and conflict-prone coercive methods (i.e., colonization of territories or the enslavement of their labour force) for organizing and governing its cross-border commercial activities—which I later associate with colonial global value chains (GVCs) under involuntary exchange. This fundamental shift was evident in the 1861 American Civil War, which ended slavery in 1865 (Adams 2021). In addition, by tipping the balance in favour of northern mixed-class (landowning-merchant) elites, the abolition of slavery would also dismantle the power structure that once enabled them to co-exist with landowning elites (i.e., plantation owners involved in cotton, tobacco, and sugar production) in southern states (Adams 2021). Although the coercive colonial system would decline, the American state and its northern industrializing businesses were prepared to pursue and protect their interests through war and aggressive deal-making throughout the 19$^{th}$ and 20$^{th}$ centuries. But as I will illustrate later, their relatively liberal orientation was partially displayed in their reliance on market-based governance structures (i.e., private enforceable contracts) and voluntary exchange to organize their international business or trade activities.

There are two other notable areas in which American mercantilism departed from Canada's inherited British mercantilism. The first one involves a departure from Britain's bankruptcy laws. As former British colonies, Canada and the U.S. are expected to have initially adopted Britain's historically hostile legal and social stance toward debtors relative to creditors (Efat 2006; Oliver 1998). However, according to some historical accounts (e.g., Randall 1952), imprisonment for unpaid debt was never widespread in America. Returning to its Founding Father's mixed-class backgrounds, debtor-creditor or landowner-entrepreneur social status and

relations were less stratified in the U.S. than in Britain or Canada (Randall 2022). In addition, given the historically lenient nature of its insolvency laws (i.e., American courts typically granted bail to arrested debtors), extenuating circumstances (i.e., extreme lack of resources or social ties, drunkenness, and fraud) predominantly determined whether arrested debtors were released or kept in jail (Randall 1952). Moreover, as the debt collection system became unworkable in a rapidly industrializing American economy, the federal government officially banned jail time for unpaid debt in 1833 (Kolish 1989; Oliver 1998).

As previously discussed, the situation was different for Canada. Having had a more protracted colonial history and post-colonial experience under English law than the U.S. (Hutchinson 2020), some parts of Canada (i.e., Ontario as opposed to Quebec) historically maintained more punitive debt or bankruptcy laws than the U.S. Notably, jail time for unpaid debt was still possible in Canada even in the early 1860s (Girard et al. 2018). Moreover, it would take Canada until 1919 to establish a federal bankruptcy Act after it repealed an earlier Insolvency Act in 1880 (Telfer 2014). This could also mean that indebted or failed business leaders were more protected and less stigmatized decades earlier in the U.S. than in Canada.

The U.S. also historically departed from Britain and Canada by developing a more market-friendly patent system. Specifically, the U.S. established a more affordable, transparent, and democratic patent system starting in the 1790s (Khan 2005; Khan and Sokoloff 2001, 2006; Sokoloff and Khan 1990). To overtake Britain economically, the U.S. tried to create a patent system responsive to changing market dynamics. Furthermore, this system was compatible with the mixed-class backgrounds and interests of America's Founding Fathers. It had the potential to facilitate the rapid and low-cost assignment, licensing, pooling, or sale of patents among ordinary

and prominent economic actors on equal or fair terms (Hugill 2009; Khan and Sokoloff 2006; Lamoreaux and Sokoloff 2001).

At the same time, it is essential to avoid overstating the liberal dimension of America's mercantilism. The liberal ideology probably worked better in some aspects of American life than others. For example, some of America's Founding Fathers (e.g., Thomas Jefferson and George Washington) inhumanely deprived others of dignity and freedom by outrightly tolerating or profiting from enslaved labour operations (Ellis 2002; Randall, 2022). More generally, they had envisioned a top-down form of democracy that would withhold voting rights from less established groups (i.e., poor, uneducated, women, or enslaved people) but allow some of them, excluding enslaved people, to indirectly participate in local government (i.e., attend townhall meetings or peaceful protests) (Felchner 2008).

Interestingly, too, America's liberal mercantilism accepted trade-offs that were less socially and politically acceptable under Canada's version of British mercantilism. Canada effectively favoured predictable or stable inequalities under a hierarchical class system (i.e., a landowning or gentry-like class is above the merchant class). However, this political-economy preference would come at the expense of economic dynamism and long-term growth. Meanwhile, the U.S. was willing to accept more unpredictable or extreme inequalities in exchange for rapid industrial expansion and global dominance (Adams 2021). This trade-off would unfold under domestic governance structures that tolerated draconian anti-union practices or marginalized farmers and, ultimately, facilitated the rapid reallocation and concentration of resources in extraordinarily large and politically influential businesses (Adams 2021; Hugill 2009).

The final notable difference is America's historically strong nationalistic orientation in the political-economy domain compared to Canada. This orientation involves the systematic elevation of national economic and political interests over competing international interests, which sets the stage for isolationist tendencies and a predisposition for extreme conflict resolution strategies (i.e., declaring war) (Mancke 1999). This could mean a fixation on being number one in the economic and political sphere relative to commonly understood international targets: an imperial British state and its chartered monopolies in the 19th century. This kind of nationalistic orientation probably goes back to the early Revolutionary Leaders' convictions about their "natural right" to have their empire, as well as the shared Patriot identity, as opposed to a British Loyalist or Royalist identity, that probably crystallized during the War of Independence (Mancke 1999; Williams 1958). However, the merit of this Patriot identity has been questioned more recently (Avlon 2013; Keller 2005).

***Other Economic Institutional Aspects of Canada versus the United States***

Table 2 extends the conceptual institutional framework by describing other economic institutional dimensions. If Canada and the U.S. initially differed in their mercantilist institutions, a relevant question is how this institutional heterogeneity could shape their incentive structures. In general terms, Canada's initial mix of institutional barriers and enablers could more strongly favour colonial economic organization and relations. But this calls for a more comprehensive approach, which will be introduced later. Since Canada has been subject to British colonial rule much longer than the U.S., another question arises: what could account for the potential persistence of British mercantilist institutions in Canada?

Based on insights from Acemoglu and Robinson (2008), early political and economic elites could perpetuate British mercantilist institutions. While taking the legitimacy of these

institutions for granted, various groups of powerful Canadian actors and groups have historically sought to purposefully preserve or shape them—from landowning political elites to wealthy merchants and professionals with a Loyalist background (Jasanoff 2008; Nagelhout 2017; Naylor 2006).

Following Patterson (2019), the conceptual framework also touches on the issue of institutional competence. It recognizes the increased chance for diminished institutional competence in the Canadian versus the American context. Specifically, Canada's chance of deriving a comparative advantage from British mercantilist institutions could be relatively low if these institutions are misaligned with the changing post-colonial environment (i.e., the changing mix of opportunities and threats in the post-colonial era). A comprehensive treatment of institutional competence is beyond the scope of this article. However, it remains an essential theme behind some discussions in later sections.

## Relevant International Economic Structures: Why Global Value Chains Matter

Colonial-era disparities in Canada-U.S. mercantilist institutions could be associated with the Canada-U.S. gap in business outcomes long after colonialism ended. To understand why this could occur, it is crucial to pinpoint the international economic structures through which institutional influences could operate and persist over time. The role that global value chains (GVCs) could play is worth exploring. They constitute a network of economic actors that perform specialized functions to mobilize and transform inputs or intermediates into value-added goods or services for customers (Epede and Wang 2022; Gereffi 2011). Colonial GVCs involving Canadian or American businesses are not generally traced back to the British colonial era (Ambos et al., 2021; Antràs and Chor 2022). But this could be an oversight.

Like contemporary GVCs, colonial GVCs could mobilize and transform raw materials or intermediate goods into value-added offerings for end-users or final customers by coordinating a network of agents (i.e., private and state actors) with specialized functions—albeit under more coerced or involuntary exchanges (i.e., enslaved or forced labour and coerced inter-state or inter-territory relations) than is generally associated with contemporary GVCs under free trade (Epede and Wang 2022; Gereffi 2011). In addition, colonial and modern GVCs share comparable risks and uncertainties beyond what is expected from pure domestic and independent business operations (Gereffi and Luo 2018). In the colonial context, the British state and government-chartered enterprises (i.e., licensed trading monopolies) effectively served as the colonial GVC leaders (Evans 1988; Ressel 2013).

Meanwhile, colonial GVC partners (i.e., Canadian and American agricultural and natural-resource enterprises) were expected to conform to their externally imposed specializations: they were simultaneously coerced into specializing in upstream functions and blocked from specializing in downstream functions. Their involuntary GVC specializations could differ from what they would choose under voluntary exchange and, hence, do not necessarily align with their potential comparative advantage under free trade or voluntary exchange. In the next section, I will illustrate the nature and consequences of colonial GVCs in the context of the 18$^{th}$- to 19$^{th}$-century merchant shipping industry.

**Colonial GVCs: The Case of the Merchant Shipping Industry**

As late as the 17$^{th}$ century, Britain lagged Holland and France in transoceanic maritime activity (Andrews 1915; Israel 1989). But it would overtake them in the 18$^{th}$ century by dominating the military navy (i.e., Royal Navy) and the merchant shipping industry (Evans 1988; Fischer and Nordvik 1990). Based on its mercantilist institutions, it sought to fortify its naval defense and appropriate the value generated from transporting exported and imported goods by

sea. The Navigation Acts from the mid-1600s were instrumental here. As previously discussed, these Acts considerably constrained colonial businesses' scale and scope of shipping, port, and trade activities (Ranson 1968; Sawers 1992).

Economic historians disagree on the magnitude of the economic costs associated with these Acts (McClelland 1969; Ojala and Räihä 2017; Thomas 1965; Walton 1971). However, it is generally accepted that some British merchants and shipping companies profited at the expense of their colonial counterparts. The former could realize substantial profits and growth from captive colonial markets for shipping services, combined with re-exporting activity (i.e., re-export of colonial staples from Britain to other European ports). Meanwhile, the latter was constrained by expensive, slow shipping and diminished growth potential.

This situation was problematic for the colonies. The merchant shipping industry would more strongly drive and benefit from the Industrial Revolution than the agricultural and natural resource industry (North 1968; Ressel 2013; Shepherd and Walton 1972). In addition, there were demanding resource and capability requirements that virtually only British shipping companies could meet at the time (Evans 1988). Specifically, it was essential to develop or acquire substantial resources—including financial capital, human capital (i.e., a mix of seasoned shipmasters with international experience, skilled engineers, and less skilled seamen), physical capital (i.e., machinery, equipment, and manufacturing facilities), advanced transport technologies (i.e., fuel-efficient steam-engine technology versus less efficient steam-engine or wind-dependent sail technology), and raw materials or intermediate goods (Chin, Juhn, and Thompson 2006; van Lottum and van Zanden 2014). It was also important to develop complementary capabilities—including superior routines or processes for innovatively and

efficiently designing, manufacturing, marketing, selling, and operating ships (van Lottum and van Zanden 2014).

Another critical capability requirement was organizing international trade networks and managing the associated risks and uncertainties (Evans 1988; van Lottum and van Zanden 2014). Under Britain's mercantilist and imperial power, the demand for merchant shipping services spanned Britain, its colonies, and the rest of the world (including non-colonized territories in Europe, Asia, and Africa). The complex business functions were unevenly distributed within and between Britain and its colonial territories. British entities were primarily responsible for various downstream functions (i.e., ship design, shipbuilding, steam-engine production plus the marketing, sale, and operation of ships), as well as the ongoing maintenance of ships, shipyards, ports, machine and woodwork shops, steel mills and foundries (Black and MacRaild 2003; Ressel 2013; Shepherd and Walton 1972).

In addition to dealing with general market risks (i.e., potential losses due to unexpected shifts in technology or market demand), they also had to contend with elevated hazards and uncertainties that arise from entering unfamiliar or high-risk international oceans and markets (i.e., security threats, catastrophic natural disasters, fluctuations in the terms of trade or exchange rates, political instability, and opportunistic trading partners) (Reid 2017; Stanziani 2010). Furthermore, formidable challenges and risks (i.e., revolt- or war-driven disruptions in commerce) were associated with integrating trade and business activities across Britain and its colonies. Turning to the colonial entities, they had a different set of commercial responsibilities. As previously indicated, they primarily performed upstream functions (i.e., production and supply of timber, iron, and other raw materials). They were also required to import essential machines and tools from British manufacturers to support their colonial operations.

It is reasonable to conceptualize this 19th-century international economic system as a colonial GVC in the merchant shipping industry. As colonial GVC leaders, British shipping entities could accumulate experience-based knowledge and transferable international business skills from performing these and other general functions: integrating the varied upstream and downstream activities among networked British enterprises and their involuntary colonial partners, developing formal and informal institutions to structure and govern colonial and non-colonial trade relations; serving diverse domestic and foreign customers (i.e., British, colonial, and non-colonial merchants in need of transoceanic shipping services); and innovatively managing the elevated risks and uncertainties that emanate from international business operations, especially GVC-structured operations (Fusaro 2020; Reid 2017). On the contrary, their colonial business partners were restricted to incremental refinement or accumulation of upstream-specific knowledge and experience. This could have resulted from the repeated performance of the same upstream functions in local markets (Thompson 2001). In addition, colonial GVC partners were probably preoccupied with incrementally reorganizing their upstream operations and adopting new or improved labour-saving machines.

If British GVC leaders and colonial partners initially exhibited this asymmetric pattern of human capital accumulation, British mercantilist institutions (i.e., Navigation Acts and other restrictive colonial legal or economic institutions) could link the past to the future through this human-capital channel. British mercantilist institutions could initially relegate them to subordinate upstream GVC functions by restricting what colonial businesses could do in trade and merchant shipping. Furthermore, colonial companies could not effectively develop, manage, and leverage international business networks. As a result, they were likely to start with weak GVC capabilities—as reflected in the lack of first-hand or experience-based knowledge of how

to organize, govern, and lead GVCs globally (i.e., within and outside the colonial trade system). Thus, British colonies were susceptible to institutionally induced path dependencies in their economies during and after the colonial era.

### *A Potential GVC Institutional Mechanism*

If liberal mercantilist institutions primarily governed American than Canadian businesses in the past, the former could have initially derived relative competitive advantages from encountering (a) *fewer institutional barriers to GVC development* and (b) *more institutional enablers of GVC human capital and capability accumulation*. Consequently, perhaps American businesses were more incentivized to pursue and achieve superior positions and functions in GVCs with high value-generating potential.

This involves anchor or lead positions and downstream functions (i.e., marketing, selling, and distributing branded products to customers) that enable GVC leaders to optimize and appropriate the value (i.e., net gain) from organizing business operations in a superior GVC versus a large hierarchical organization (i.e., a vertically integrated firm) or pure market exchanges (i.e., commercial contracts among strictly independent parties). A firm's propensity to establish superior positions and functions in leading GVCs could partially depend on these strategic business decisions: (a) the scale and scope of their innovation and international activities and (b) their market dynamics (i.e., speed of entry in and exit from specific markets or industries) (Ambos et al. 2021; Antràs and Chor 2022; Cantwell 1995).

## Canada-U.S. Colonial GVC Orientation: The Case of Merchant Shipping versus Primary Industries

Based on this proposed GVC institutional mechanism, Table 2 presents a conceptual framework to illustrate why Canada-U.S. business disparities in GVCs could result from initial cross-country differences in mercantilist institutions. The contexts cover relevant colonial-era

and post-colonial industries. A fundamental premise is that liberal mercantilist institutions played a more dominant role in American than Canadian business sectors. Thus, according to the GVC institutional mechanism, American businesses were likely to exhibit these distinctive strategic behaviours compared to their Canadian counterpart: a stronger orientation toward GVC leadership and downstream functions in the (a) merchant shipping industry versus primary industries during the colonial era and (b) similar GVC orientations in the automotive and other high-potential industries during the post-colonial era. In the next section, I will turn to merchant shipping to illustrate the disparities in the relevant institutional barriers, institutional enablers, and associated strategic decisions.

[**INSERT TABLE 2 HERE**]

### *Relative Dominance of British Companies in the Merchant Shipping Industry: From Wooden Sailing Vessels to Iron and Steel Steamships*

Starting with the colonial-era industrial context, it is vital to revisit Britain's industrial leadership during the nineteenth-century Industrial Revolution. Between the mid-1700s and mid-1800s, economic historians suggest that Britain dramatically reallocated resources (i.e., labour and capital) from small-scale agrarian production to large-scale industrial production—which included the high-volume production of steel sheets, along with iron and steel castings in steel mills and foundries, respectively (Black and MacRaild 2003; De Vries 1994; O'Brien 1998). As early leaders in merchant shipping (Ressel, 2013), British companies were better positioned than their Canadian and American counterparts to drive and benefit from this economic development, among others. Still, they all faced a common challenge: how to continuously develop and profit from technological innovations in international oceanic transport and trade.

World trade was changing in significant ways. It increased between more geographically diverse and distant countries as Britain facilitated freer trade in the 19$^{th}$ century (Estevadeordal et

al. 2003). As a result, demand for low-cost and long-distance shipping services increased, accompanied by increasing demand for heavier manufactured goods with faster turnaround times (Harley 2020). These demands and expectations were beyond the capacity of even the best wooden sailing vessels, with anti-fouling copper sheets protecting the hull bottom from wood-destroying and drag-increasing marine organisms (Laidlaw 1952). By relying on wind power, they lacked a reliable source of energy. Furthermore, this energy problem was compounded by high maintenance costs for wooden hulls, plus the challenge of delivering freight on time—given recurring delays at ports due to unreliable, labour-intensive load management systems (Harley 1988).

From the second half of the 1800s and at least by the 1880s, British companies were already on track to reinforce their industry leadership with superior coal-to-energy technology (Ommer 1984). This technology was deployed in iron-hulled and, eventually, steel-hulled steamships with screw propellers. By burning coal to generate high-pressure steam in an internal engine, these steamers could transmit the energy to a propulsion system that moves them through water (Smith 2018). This technology was advantageous because cheap and abundant coal could be stored and burned safely on ships; plus, the deployed steam engines were designed to economize on the use of coal while consistently generating more significant power than wind (Smith 2018).

Moreover, compared to wooden sailing vessels, the steamers were bigger, more durable, and more operationally efficient—given their more labour- and time-saving load management systems between ports (Harley 1988). However, since copper sheathing was ineffective in preventing corrosion and fouling in iron hulls, subsequent innovation efforts would primarily pursue feasible and affordable anti-corrosion and anti-fouling solutions. After many failed

experiments, workable but short-lived and expensive paint-based solutions would emerge in Britain close to the 1900s (Laidlaw 1952).

Economic historians provide valuable insights on the steamer business model. For instance, Ommer (1984) suggests it promised high returns through economies of scale. Still, it required substantial upfront capital expenditures and superior human capital (i.e., skilled engineers, experienced masters, and at least semi-skilled or trainable crew members). British companies were probably the only ones up for this challenge. Building on their historically strong base of resources and capabilities, they became even larger and more competitive as multinational corporations by merging with other companies and centralizing their operations (Ommer 1984). In addition, they could raise capital on relatively favourable terms from the dominant financial networks that emerged in Britain (Carlos and Neal 2011).

### *Varied Economic Situations and Exit Conditions of American and Canadian Shipping Companies*

Britain's reinforced dominance and leadership in shipping, among other areas, were reaffirmed at an inconvenient time for the U.S. and Canada. The U.S. had just passed the century mark as an independent country in the 1880s, while Canada was still a new nation without full sovereignty in its foreign affairs. In addition, the U.S. had not yet fully closed its historical economic gap with Britain, while Canada was still behind both countries technologically and economically (Broadberry 1998; Naylor 2006). Driven by nationalistic and profit motives, the U.S. government and American businesses pursued more dramatic economic transformations than their Canadian counterparts between the mid-nineteenth and early-twentieth centuries.

After the American Civil War ended in 1865, prior studies suggest that America accelerated the reallocation of resources from primary plantation-based industries (i.e., cotton, rice, tobacco, and sugar) in southern states to selected primary industries in northern states (i.e., coal mining);

and ultimately, multiple essential secondary and tertiary industries: from merchant shipping to large-scale manufacturing (i.e., cotton textiles and iron and steel production), and especially complementary services (i.e., transportation, communication, and financial networks) (Adams 1921; Brinkley 1997; Broadberry 1998; Broadberry and O'Mahony 2004; Hugill 2009). On the Canadian side, a more gradual economic transformation was underway (Naylor 2006).

Based on the early economic analysis of Firestone (1960), Canada's primary industries (i.e., wheat as opposed to timber at the time) had remained economically significant relative to comparable industries in the emerging American industrial structure. However, domestically-oriented, small-scale manufacturing (i.e., flour, timber, iron, and steel mills) and services (i.e., transportation, trade, finance, and personal and professional services) were becoming important economic drivers toward the 1900s. A later study by Baldwin and Macdonald (2012) confirms natural resources' continued relative economic significance. They associate these resources with positive trading gains, primarily accounting for Canada's income growth between 1870 and 2010. Resource-based operations are susceptible to boom-bust cycles. However, according to this study, the fluctuating value generated from exported natural resources could be large enough, on average, to cover the average cost of imported manufactured goods.

In the case of merchant shipping, American companies were ahead of their Canadian counterparts. The former had significantly advanced their wooden sailing vessel operations worldwide, making them second only to their British counterparts in the 19$^{th}$ century (Kinghorn 2012). On the other side of North America, the Canadian business sector reached fourth place in merchant shipping at its peak (Ommer 1984). However, starting with American companies, these North American companies were eventually forced to withdraw from this industry in response to Britain's superior steamers (Calkins 1882; Donn 1988; Ommer 1984).

The articulated institutional framework (Table 2) can clarify these historical cross-country differences in the merchant shipping industry. Compared to the Canadian business sector, the American business sector was more incentivized to innovate and grow internationally in merchant shipping, which could be viewed as an economically and politically significant industry.[3] But like Canadian business leaders, American business leaders had come to terms with the overwhelming dominance of British steamship companies; plus, they finally assessed that their wooden sailing vessels were no longer financially viable (Calkins 1882; Donn 1988; Hutchins 1946; Ommer 1984). However, their exit conditions varied in significant ways.

American businesses had entered earlier and committed more resources to merchant shipping than their Canadian counterparts. But the former exited sooner (Ommer 1984). This entry-exit pattern is relevant from an institutional perspective. If American business leaders were more predisposed to strong nationalistic and profit motives than their Canadian peers, they would be more strongly incentivized to pursue other attractive industrial opportunities for GVC leadership —rather than remain marginally profitable in a British-led GVC in merchant shipping. This is plausible because there were concurrent innovation and expansion efforts in complementary industries (i.e., transportation and communication services) in an enabling U.S. business environment (i.e., the market-friendly patent system, lax enforcement of antitrust laws, and debtor- or entrepreneur-friendly bankruptcy laws) (Adams 2021; Hugill 2009).

Furthermore, the consequences of historical disparities in Canada-U.S. mercantilist institutions were probably already unfolding during this period. During the post-colonial era, America's investments in transportation and communication systems aligned with its business and political interests. These investments gave American companies more significant potential for growth, profitability, and leadership in superior GVCs (Hugill 2009). In addition, the large

scale and scope of innovation and international activities in the American business sector were extraordinary at the time.

On the contrary, internal political-economy considerations were more influential in the Canadian context. Going back to the 1867 BNA Act, the emerging Dominion of Canada (i.e., Ontario, Quebec, Nova Scotia, and New Brunswick) was expected to use an intercolonial railway system to accomplish these political-economy objectives, among others: (a) winning over Western territories (i.e., the annexation of Rupert's land to Canada or what would become the provinces of Manitoba, Saskatchewan, and Alberta in the West) at risk of becoming American conquests; (b) gaining control over these territories' valuable land and natural resources; and (c) fostering economic self-reliance through inter-provincial trade in the face of declining support from Britain, coupled with an imperialist American state (Dempsey 1984; Den Otter 1997; Waiser 2005). In keeping with British mercantilist institutions, the state-chartered monopoly, Canadian Pacific Railway (CPR), would be instrumental in pursuing these objectives (Naylor 2006). Thus, even if we account for Canada-U.S. differences in the stage of economic development, among other notable differences (i.e., initial Canada-U.S. disparities in population size, arable land, and other geographical features), their initial variation in adherence to British politico-economic institutions could have already put them on divergent economic trajectories.

**Canada-U.S. Post-Colonial GVC Orientation: The Case of the Post-Colonial Automotive Industry**

For the GVC institutional mechanism's other theoretical implication (Table 2), the following questions are relevant: Did American businesses achieve stronger GVC orientations in the post-colonial automotive industry than Canadian businesses? If so, how is this GVC-related disparity related to differences in their past institutional realities (i.e., past exposure to institutional barriers

and enablers) and strategic decisions? Prior research also points to preliminary answers to these questions.

***Post-Colonial Automotive Industry: From Craft Production to Mass Production***

Returning to nineteenth-century Britain, its industrial leadership in transportation was not limited to oceanic transportation (i.e., iron and steel steamships). It was also ahead of America and Canada in ground transportation systems. By 1803, the British engineer Richard Trevithick was already deploying steam-engine technology to upgrade horse-drawn carriages to steam-powered horseless carriages (Burton 2000). But as late as the 1890s, research indicates that the emerging automotive industry was still characterized by craft production: skilled craftsmen at small metal and machine shops would build customized automobiles for wealthy customers on a small scale (Sako 2002).

However, these early British automakers were more skilled and better resourced than their North American counterparts. As a result, they could outperform them by providing superior vehicles and related services to a niche or specialized market at premium prices (Broadberry 1998). In line with an early perspective on conspicuous consumption (Veblen 1899), their business model essentially treated vehicles as luxury goods for high-income people who needed to signal their wealth or high social status credibly. Therefore, even if their sales volume was low, they could generate high profit margins or supernormal profits by charging prices well beyond the marginal cost of production (Bagwell and Bernheim 1996).

On the North American side, there were more significant automotive developments unfolding in the U.S. than in Canada—including the recreational or circus-featured steam-powered horseless carriage of the Massachusetts machinist Sylvester Roper around the 1860s and around the 1890s, when the Massachusetts mechanics Frank and Charles Duryea (i.e., Duryea Motor

Wagon) commercialized a racing horseless carriage with a gasoline-fueled, internal-combustion engine (Bacon 1984; Scharchburg 1993). But like the British context, automobile production was a small-scale operation dominated by a few skilled craftsmen.

According to previous studies (Wren and Greenwood 1999; Yarnell 2016), the Detroit engineer Henry Ford would change this industrial structure. By the mid-1890s, he had already mechanized a horseless carriage with four bicycle wheels. Ford would later focus on the neglected personal transport needs of the American working class rather than the economic and political elites that preoccupied British automakers. However, this new target market presented unique challenges.

At the time, offering affordable vehicles and related services to the mass market at a satisfactory quality was challenging. There was also the technological challenge of combining capital (i.e., machines and tools) with an ample supply of low-skilled labour (Broadberry 1994). The need for organizational innovation compounded these challenges. A transition from craft production to mass production was associated with an extraordinary increase in the scale, scope, and complexity of core business activities (i.e., input sourcing, production, marketing, sales, and distribution) at levels that probably exceeded the capacity of a vertically integrated firm (Yarnell 2016). Between 1903 and 1915, Henry Ford addressed these challenges and set the stage for American leadership in the automotive industry.

After incorporating the Ford Motor Company in 1903, he went on to initiate these notable innovative and international activities at an accelerated pace: the development of the first global assembly plant (i.e., Walkerville Wagon Works) in Windsor, formerly known as Walkerville in southwestern Ontario, Canada (1904); the creation and ownership of a vital marketing asset (i.e., scripted Ford trademark, 1907); establishment of an international sales branch in Paris (1908);

development of the Model T with a gasoline-fueled, internal-combustion engine (1908); the large-scale production of Model T on a productivity-improving moving assembly line—with interchangeable parts, general-purpose machines and tools, and the breakdown of complex tasks into simpler ones (1913); improvement of auto workers' compensation package (i.e., doubled the daily pay rate and later shared profits) (1914); and the development of the Ford Dealership Franchise system (1914) (Kessler 1957; Sako 2002).

Eventually, Ford Motor Company, among other Detroit-based automakers (i.e., General Motors (GM) Company, founded in 1908; and Chrysler Corporation, created in 1925), would organize and lead automotive GVCs with multiple complementary functions—including vehicle design and R&D specialists; raw material suppliers (i.e., suppliers of rubber and metals); intermediate-good suppliers (i.e., suppliers of auto parts); vehicle assemblers; marketing, sales, internal financing (i.e., car leasing or loan arrangements) specialists; wholesale distributors of own-brand vehicles; and an extensive network of external-financial, retail, and after-sale partners (i.e., new and used vehicle dealers, vehicle service or repair shops, auction services) (Kessler 1957; Sturgeon, Van Biesebroeck, and Gereffi 2008; Yarnell 2016).

Moreover, American automakers would retain control of primary downstream functions, compared to Canadian branch plants or independent partners, which predominantly performed upstream functions alongside assembly functions. Based on prior GVC research (Ambos et al. 2021; Antràs and Chor 2022; Gereffi 2011) and other studies (Adams 1962), American auto leaders (i.e., Big Three: Ford, GM and Chrysler) would be in a relatively strong position to generate and appropriate value from one or more the following sources: (a) improved operational efficiencies (i.e., cost-savings) from GVC partner specializations; (b) economies of scale from high-volume production; (c) economies of scope from an enlarged variety of own-brand vehicles

with varying service bundles; and (d) increased market power (i.e., increased ability to charge relatively high prices and overtake or undermine competitors), especially as the GVC scale, customer loyalty, and intellectual property (IP) portfolio increased.

The proposed GVC institutional mechanism can partially explain why these Canada-U.S. GVC orientations materialized along two lines. First, American automakers were probably more incentivized to undertake more rewarding but costly and uncertain innovation and international activities at an accelerated pace. This could occur if they encountered fewer institutional barriers to GVC development than their Canadian or British counterparts. To begin with, although the U.S. has had a relatively large market, small-scale craft production was initially the norm in Britain and North America. However, more classically liberal values defined America's peculiar form of mercantilism (Dworetz 1990; Williams 1958). Therefore, perhaps American entrepreneurs were more likely than others to identify and serve a largely untapped market of ordinary customers in the early 20$^{th}$ century—which Henry Ford did by primarily recognizing and attending to the neglected transport needs of ordinary people rather than the wealthy and powerful.

In addition to being less institutionally constrained on the demand side, American automakers were less institutionally constrained on the supply side. This is consistent with what appears to have been a relatively business-friendly domestic environment. For instance, given America's collective quest for hegemony (Hugill 2009), the economic interests of automakers were likely to be more aligned with the interests of political elites in the U.S. than in Canada. Consequently, American automakers were less likely to face binding financial constraints because of political interference. Instead, investors' initial perceptions of the automotive

companies as high-risk ventures were probably more financially constraining for these companies.

Henry Ford and others were able to meet this challenge in multiple ways—including strategically winning over skeptical investors and structuring business operations to minimize working capital and capital expenditure requirements (i.e., buying auto parts on credit from suppliers and selling cars to dealers on a cash basis) (Rae and Binder 2023). They also benefitted from America's relatively strong debtor-friendly bankruptcy laws or limited-liability provisions (Adams 2021; Hugill 2009), which are expected to encourage risk-taking or long-term strategic decisions. America's market-friendly patent system probably also made a difference (Hugill 2009; Khan and Sokoloff 2006; Lamoreaux and Sokoloff 2001). This system accommodated patent cross-licensing agreements between automakers, which probably helped reduce the chance of costly or time-consuming infringement lawsuits (Rae and Binder 2023). These cross-licensing agreements could have also accelerated the sharing or diffusion of automotive knowledge or business practices in America. In sum, combined with the weak enforcement of antitrust laws, they probably made American automakers even less constrained than they would otherwise be (Adams 1962; Welsh 1948).

In addition to being less constrained in their ways, American automakers were probably more institutionally enabled than their Canadian counterparts. As previously discussed, America's relatively liberal mercantilist institutions could allow American firms to accumulate or develop essential GVC human capital and capabilities. Specifically, having had the chance to directly participate in emerging high-potential industries (i.e., merchant shipping, railroad, and communications) (Adams 2021; Herrendorf, Schmitz, and Teixeira 2012), American automakers could have accumulated GVC-related experiences and technological and marketing capabilities.

When combined with diminished institutional barriers, this latter institutionally induced advantage could have oriented them toward GVC leadership and downstream functions.

Still, research suggests it is appropriate to treat their relatively strong GVC position as a function of changing market dynamics (i.e., increased domestic competition from European and Japanese automakers and evolving consumer preferences), among other things (Adams 1962). But the Canada-U.S. disparity in automotive GVCs has probably widened in recent years, given the decline of vehicle assembly plants in Canada and the increasing infeasibility of exclusive Canada-U.S. automotive agreements—as reflected in the termination of the 1965 Canada-U.S. Automotive Products and Trade Agreement (Auto Pact) in 2001 (Mordue 2010; Yates, Sweeney, and Mordue 2017).

## An Integrative Institutional Framework: Connecting a Trio of Canada-U.S. Business Gaps to Canada-U.S. Business Performance Gap

If initial differences in Canada-U.S. mercantilist institutions can translate into subsequent GVC disparities across important secondary or tertiary industries, the latter could be an even more crucial institutional driver of the business performance gap than is generally assumed. As stated earlier, prior studies provide helpful insights by focusing on GVC participation as an independent driver of the Canada-U.S. gap in business performance (Baldwin and Yan 2014; Martin and Mayneris 2022; Scarffe 2022; Sydor 2007; Van Assche 2012). Meanwhile, other studies emphasize the role of gaps in Canada-U.S. business resource-capability bundles (Council of Canadian Academies 2009, 2018; Gallini and Hollis 2019; Katz and Raffoul 2021), and business leader attributes (i.e., risk-taking orientation, orientation toward short-termism, and growth aspirations) (Council of Canadian Academies 2009; Deloitte 2011).

As summarized in Table 3, these perspectives build on foundational theories with different assumptions and implications—from rational-choice perspectives (Arrow 1994; Becker 1990;

Sugden 1991) to networked or social embeddedness perspectives on economic exchanges (Granovetter 1985, 2017; Larson 1992; Powell 1990; Uzzi 1996; Williamson 1991), and behavioural economics theories (Kahneman, 2011; Rabin 2013; Simon 1955; Tversky and Kahneman 1974). It is possible to gain deeper insights by using the articulated institutional framework to address this question: Why could the gap in Canada-U.S. in business performance be a function of the interplay between institutionally induced gaps at the firm, GVC, and business-leader levels?

[**INSERT TABLE 3 HERE**]

Figure 1 presents an integrative institutional framework that can address this question. According to this framework, the gap in Canada-U.S. business performance could result from a complex interplay between institutionally driven gaps in Canada-U.S. business resources and capabilities, GVC positions and functions, and business leader myopia. The dashed lines indicate other potential relationships outside this framework's scope. I will elaborate on these three gaps in turn.

[**INSERT FIGURE 1 HERE**]

### *Relationship between Institutionally Induced Canada-U.S. Gaps in Business Resources and Capabilities and the Canada-U.S. Business Performance Gap*

Historical disparities in mercantilist institutions between Canada and the U.S. could induce an early and widening gap in Canada-U.S. business resources and capabilities. As previously argued, Canada's initial British mercantilist institutions were more restrictive than America's liberal mercantilist institutions. Going back to the 18$^{th}$ century, Canada complied with Britain's Navigation Acts and mercantile economic order for much longer than America. This could mean that Canadian businesses were subjected to more substantial and enduring restrictions on the nature, scale, and scope of their commercial activities compared to American

businesses. In contrast to early American companies in the post-independence era (after the American Revolutionary War ended in 1783), early Canadian companies in the pre-independence period (up to the 1931 Statute of Westminster that finalized legal separation from Britain) were more externally confined to the production and export of low-margin staples to Britain, plus the requirement to import its manufactured goods (Naylor 2006). Furthermore, given the staple-based interests of Canada's early elites and its staple-driven financial system (Naylor 2006), perhaps they were also more unwilling and unable to compete in emerging high-potential secondary or tertiary industries (i.e., merchant shipping, telecommunications, automotive, and electronics) on a global scale.

Under these conditions, Canadian companies were probably more initially incentivized than their American counterparts to prioritize competitive strategies that could capitalize on pre-existing staple-trade relations or competitive strategies. Alternatively, they could prefer competitive strategies with low resource-capability requirements in the case of emerging non-traditional industries. Consequently, a divergent gap in Canada-U.S. business strategies and resource-capability bundles was likely to occur as early as the 18$^{th}$ century. As historically innovative and global enterprises beyond primary industries (Foley, Hines, and Wessel 2021), American firms probably already had more competitively advantageous resources and capabilities than their Canadian counterparts going into the 19$^{th}$ century. These resources could include American firms' access to the most educated and experienced employees and executives, ownership of valuable patented or proprietary technologies and production processes, valuable global brands, and privileged access to the most globally reputable and dominant private and public lenders and investors. Meanwhile, their distinctive, valuable, and complementary capabilities include technological and marketing capabilities.

The wider the Canada-U.S. gaps in business resources and capabilities, the lower Canadian firms' relative capacity to meet the demands of performance-enhancing strategies (i.e., a product-differentiator or cost-leader competitive strategy) could be in regional or global markets. Consequently, they will likely innovate and export on a smaller scale than their American peers. Given Canadian firms' initial resource-capability disadvantage relative to American firms, their weaker potential for effective strategy execution could also translate into relatively low returns from innovation and export activities. More generally, given their relatively small scale of operation and fewer resource-capability complementarities, Canadian firms could realize smaller performance gains (i.e., productivity gains) from economies of scale or scope than American firms (Baldwin et al. 2014; Ranasinghe 2017). This, in turn, could result in an economically significant and potentially divergent gap in Canada-U.S. business performance.

### *Potential Contingent Effects of Institutionally Induced Canada-U.S. Gaps in Contemporary GVCs*

The strength of the relationship between Canada-U.S. gaps in business performance and resource-capability bundles could be contingent on Canada-U.S. gaps in GVCs. Based on the previous discussions, it is probably sufficient to highlight these GVC-related implications that could arise from America's more classically liberal mercantilist institutions: (a) American companies were initially more strongly incentivized than Canadian companies to pursue leadership and downstream-oriented upgrading in British-led or British-targeted GVCs (i.e., starting with merchant shipping)—given their initially elevated nationalistic orientation in the political-economy domain (Mancke 1999), enabling business environment (i.e., lax enforcement of antitrust laws, access to funding, debtor- or business-friendly bankruptcy laws, and market-friendly patent system), and an enhanced potential to meet the resource-capability requirements

of GVC leadership across multiple secondary or tertiary industries (i.e., rail transportation, automotive, telecommunications, and electronics industries) (Adams 2021; Hugill 2009; Khan and Sokoloff 2006); and (b) American companies have historically sought to maximize the value they generate and appropriate from GVCs—which involves the reliance on mutually or socially acceptable market-based governance structures (as opposed to Britain's coercive colonial structures in the past) (Adams 2021), combined with the leveraging of solid bargaining power or predatory practices in interfirm negotiations—for example, in contrast to Japanese lead firms' relational or trust-fostering practices, American-lead firms could require auto parts suppliers to openly bid for parts production contracts even after they win an initial bid for design contracts without compensation provisions (Sturgeon et al. 2008).

While American-lead companies are expected to govern and profit from their GVCs, Canadian companies could fare better when they operate as partners (i.e., Magna International) in American-led GVCs (i.e., American-led automotive GVCs) rather than as independent non-GVC businesses. This is consistent with evidence suggesting that Canadian firms realize productivity gains when they switch from independent export operations to upstream GVC functions with the following mix of upstream importer-exporter functions: Canadian exporters import intermediates from their American GVC partners and other GVC partners (i.e., low-cost suppliers from low-income countries) primarily for the production and sale of intermediate goods or services to their geographically close and trusted American GVC partners or buyers (Baldwin and Yan 2014; Martin and Mayneris 2022; Scarffe 2022). The varying productivity gains from such upstream GVC functions could accrue from Canadian exporters' increased access to efficiency-enhancing and quality-improving resources (i.e., knowledge, production technologies, advanced machinery and equipment, and cheaper raw materials) or interfirm learning enabled by

trusted interpersonal connections and GVC linkages (Alcacer and Oxley 2014; Baldwin and Yan 2014; Soontornthum et al. 2020).

In other words, the Canada-U.S. business performance gap arising from Canada-U.S. resource-capability gaps could be reduced when independent Canadian exporters become upstream specialists in American-controlled GVCs. However, the relative performance improvement is not a purely economic phenomenon: the efficiency gains from specializing in functions could leverage and reinforce Canada's historical concentration in staples and upstream operations under British colonial rule (Naylor 2006; Scarffe 2022). From an innovation perspective, Canadian exporters' innovation efforts could primarily improve intermediate-output quality, reduce production costs, and accelerate response times in contemporary U.S.-led GVCs (Alcacer and Oxley 2014). Consequently, Canadian exporters could be inclined to undertake more incremental process-based innovation and export more intermediates as upstream GVC specialists, compared to independent Canadian exporters or American downstream specialists. Still, they could realize a higher return from undertaking innovation and export activities in U.S.-led GVCs than elsewhere (Baldwin and Yan 2014).

Although Canadian firms can fare better when they switch from independent to GVC-governed activities, the Canada-U.S. gap in business performance could persist. This is possible because American firms control the GVCs and specialize in downstream or customer-facing functions (i.e., marketing, sales, distribution, and after-sale support) that confer a relative advantage in value generation and appropriation (Alcacer and Oxley 2014; Martin and Mayneris 2022). Given their advantageous GVC positions and functions, American GVC leaders could also use restrictive outsourcing agreements to govern their interfirm relationship with Canadian upstream specialists (i.e., auto parts suppliers). Specifically, they could limit the scope of

knowledge transfer to only efficiency- and intermediate-improving technological knowledge in a narrow range of upstream activities (Alcacer and Oxley 2014). This, in turn, could prevent Canadian exporters from gaining complementary resources and marketing capabilities essential for functional upgrading in GVCs—which involves shifting from upstream specialist functions to more advantageous downstream functions. Without this kind of functional upgrading, the Canada-U.S. gap in business performance could be more persistent or wider under American-led GVCs than it would otherwise be.

### *Potential Contingent Effects of Institutionally Induced Canada-U.S. Gaps in Business Leader Myopia in Contemporary GVCs*

Finally, the relative performance effects of Canada-U.S. gaps in either resource-capability bundles or GVCs could partially depend on factors at the business-leader level. At this individual level, myopia or short-termism is a notable psychological attribute. It could be partially manifested in business leaders' tendency to inadvertently undermine their companies' long-term performance by elevating or prioritizing strategies that yield short-term gains at the expense of financial and strategic gains over the long term (Graham, Harvey, and Rajgopal 2005; Czakon et al. 2023). Based on the behavioural economics literature, present-biased or time-inconsistent preferences could also be at work. If business leaders have present-biased preferences, they put excessive weight on current results (i.e., rewards or costs) versus potentially more important future results when making intertemporal decisions (O'Donoghue and Rabin 1999; Strotz 1956). Alternatively, they are unlikely to use the same discount factor per time unit (i.e., constant exponential discounting) to reduce and weigh future rewards against present rewards. Instead, they will likely apply a higher discount rate for the same time unit or waiting time (i.e., more hyperbolic discounting) when choosing between present and future rewards today versus later (Frederick, Loewenstein, and O'Donoghue 2002).

The relative significance of preference-based or external drivers of myopia is unclear. Some researchers suggest that entrepreneurs and managers could be more susceptible to myopic decision-making when subject to demands for impressive short-term results from leading market players (i.e., private investors and capital market analysts) (Bhojraj and Libby 2005; Gigler et al. 2014; Martin 2015; Stein 1989). In line with this view, there are recurring public lamentations about the perils of pervasive short-termism among contemporary Canadian and American business leaders (Dimon and Buffett 2018; Mackintosh 2022; Nelson 2016). However, recent research seems to cast doubt on the link between quarterly stock-market demands and value-destroying managerial short-termism (Roe 2022).

Still, when business leaders engage in myopic strategic decision-making, they are subject to biased information processing. This information processing can produce distorted strategic decisions that compromise business performance in various situations (Czakon et al. 2023; Mizik and Jacobson 2007; O'Donoghue and Rabin 2015). Thus, it is essential to consider this question: Why might Canadian business leaders be even more myopic in their strategic decision-making than American business leaders?

According to the articulated institutional framework, initial Canada-U.S. institutional disparities could have historically induced a significant gap in Canada-U.S. business leader myopia. This goes back to the view that America started with more classically liberal mercantilist institutions than the British mercantilist ones Canada encountered and perpetuated. In the case of economically important legal institutions, I reiterate that America initially had more debtor-friendly or business-friendly corporate laws much earlier than Canada: the U.S. banned debtor prisons and officially adopted less punitive or more failure-tolerant bankruptcy laws and limited liability provisions than Canada before the mid-19$^{th}$ century (Efat 2006; Kolish

1989; Hutchinson 2020; Oliver 1998); while Canada virtually operated without a federal Bankruptcy Act between 1867 and 1919 (Telfer 2010, 2014). As previously suggested, these legal disparities point to a protracted period of inadequate debtor protection and stigma in Canada compared to the U.S.

Thus, bankruptcy or business failure could have initially exposed Canadian entrepreneurs and executives to relatively high personal or psychological costs. For instance, they could have suffered from elevated stress or depression from social isolation in jails, diminished social status, the stigma of financial imprudence or moral failure, combined with high financial costs—i.e., foregone future earnings due to imprisonment plus the loss of private assets to settle unpaid debtor to creditors or investors. Moreover, these psychological and economic costs could have significantly tempered risk-taking and forward-thinking business strategies in early Canadian business leaders. This is possible because these business leaders were predominantly economic and political elites with relatively strong business (i.e., staple trade) ties to Britain or part of a legitimized population of loyalists or royalists in Canada at the time (Naylor 2006). Thus, they probably had more to gain from strategic continuity (i.e., strategically leveraging pre-existing staple trade and relations) than strategic change (i.e., deploying strategies that could challenge or alter pre-existing staple trade and relations) under the pre-existing mercantilist institutions.

It is also possible that more enterprising or forward-looking Canadian business leaders were initially more inclined to migrate to the U.S. than stay in Canada. This is consistent with historical and contemporary accounts on the patterns of brain drain from Canada or Britain to the U.S.—including prominent scientists, inventors, or engineers (i.e., Alexander Graham Bell, who invented the telephone in 1876) to entrepreneurs or merchants (i.e., waves of indebted business people who fled Canada for the U.S. after Canada repealed its Insolvency Act in 1880), among

other high-skilled professionals (Bliss 1987; Zarifa and Walters 2008; Zhao, Drew, and Murray 2000). Meanwhile, Canada initially attracted waves of loyalists from the U.S. during the 18th century and, eventually, waves of immigrants from non-traditional source countries (i.e., non-Western European countries and Asia) between the 19th and 20th centuries (Knowles 2007; Morgan 2023; Simmons 2010).

Under these circumstances, Canada's eighteenth- to nineteenth-century business culture was probably less conducive to risk-taking, long-term strategic decisions, and business failure than the U.S. This early Canadian business culture probably had long-term adverse consequences. Specifically, it could have undermined the potential for developing long-term business strategies over time or across subsequent generations of Canadian business leaders. If these leaders were institutionally induced to make fewer long-term and potentially risky strategic decisions than their American peers, they could have had fewer opportunities to improve critical decision-making processes under time pressure, uncertainty, and complexity in dynamic global markets. According to behavioural economics research (Kahneman, 2011; Rabin 2013; Simon 1955), these decision-making processes could depend on business leaders' ability to properly process incomplete information about investments with uncertain payoffs over the long term, their ability to refine mental models or representations of the enlarged global business environment; and eventually codify and transfer tacit or experience-based knowledge from one generation of leaders to another.

This possibility is consistent with research that recognizes the learning benefits associated with *learning-by-doing* or *learning-from-others* processes under repeated tasks or tasks that vary in complexity, among other situations (Thompson 2001). For example, in contrast to Canadian business leaders, American business leaders in the automotive and other non-

primary industries were able to learn about long-term strategic decisions from prior work or business experience in large, nineteenth-century railroad corporations—where the practice of separating long-term strategic decisions from short-term operational decisions was established, along with cost accounting and the expedited flow of telephone-mediated information after 1876 (Adams 2021).

Based on these insights, it is important to re-evaluate what appears to be purely rational Canadian strategies in U.S.-led GVCs. Specifically, if Canadian companies are predominantly upstream specialists in U.S.-led automotive GVCs, an equilibrium featuring low Canadian business innovation or U.S.-mediated global expansion seems reasonable (Nicholson 2016). For instance, Canadian entrepreneurs or companies could reasonably favour incremental process innovations over radical product innovations or indirect exporting through U.S.-led GVCs rather than direct exporting in global markets. If they generate valuable intellectual property (IP) in the form of patents, they could rationally favour short-term IP-monetization strategies (i.e., immediate payoffs from the outright sale of patents to American firms) versus long-term IP-commercialization strategies (i.e., generating new or improved products through globally scaled companies) (Gallini and Hollis 2019).

Still, these and other seemingly rational strategies could partially reflect the enduring distortive effects of these two historical factors in the Canadian context: (a) prior excessive psychological anchoring in, or commitment to, the British mercantile order and (b) the potentially diminished capacity for strategic change due to prior limited opportunities to learn and deploy long-term business strategies in the past. American businesses and the U.S. government were historically less anchored in the British mercantile order; plus, they were more nationalistically driven to pursue economic hegemony through GVC leadership. On the contrary,

Canadian business leaders and the Canadian government have long been psychologically disincentivized from pursuing long-term business or national strategies that could challenge the established economic order, whether under British or American hegemony in the 19th or 20th century, respectively.

Under these conditions, Canadian business leaders could be more susceptible to institutionally induced myopia in contemporary GVCs than their American peers. This form of myopia could arise if their investment (i.e., resource allocations to product, marketing-capability, and global-market development initiatives) and ownership (i.e., ownership of patents, trademarks, and other complementary assets) strategies strongly conform to their historically involuntary upstream functions (i.e., under prior coerced-upstream and blocked-downstream specializations in Britain's colonial GVCs) at the expense of their potential downstream functions (i.e., future voluntary downstream specializations in post-colonial GVCs under free trade). Under changing market dynamics, the underlying risk is that Canadian executives or entrepreneurs could inadvertently undermine their companies' potential for functional updating and value appropriation in superior GVCs. As a result, the gap in Canada-U.S. business performance could be even more persistent and wider than it would otherwise be.

## Discussion

This article has revisited the longstanding concern about the Canada-U.S. business performance gap on the innovation and export fronts. It has been previously tackled from different angles. There are helpful insights on why the performance gap could partially emanate from Canada-U.S. disparities at the firm, GVC, business leader, and the broader institutional-environment levels. However, there is value in considering these factors together rather than separately. Therefore, this article primarily contributes by synthesizing existing perspectives in an

overarching institutional framework. It addresses historical institutional forces that can drive disparities in Canada-U.S. business performance through this trio of Canada-U.S. gaps: business resource-capability bundles, GVC positions and functions, and business leader myopia in contemporary GVCs. Although Canada and the U.S. were initially subjected to British colonial rule, it recognizes that they are historically different in critical ways. Notably, they initially differed in independence timing and motivations, political-economy preferences, and level of classical liberal mercantilist institutions. Thus, Canada's underperformance problem is partially a byproduct of prior institutionally induced path dependencies that still separate it from the U.S. today.

Having provided a comparative review of major industrial transformations between the 19th and 20th centuries, this article also clarifies the nature and consequences of past Canada-U.S. institutional disparities in the case of specific industries (i.e., merchant shipping and automotive industries). A relevant question is what these historical institutional disparities mean for the relative performance of Canadian businesses in the 21st century. There are still lessons to be learned from the spectacular rise and demise of earlier global Canadian companies, such as BlackBerry and Nortel, in non-traditional industries (i.e., electronics and telecommunications). In the case of BlackBerry, which started as Research in Motion (RIM) in 1984, the institutional framework suggests that GVC-related issues deserve special attention.

One thing to remember is that BlackBerry operated as a vertically integrated global company—from the time it advanced from a two-way pager to the BlackBerry smartphone in 2003 to the peak of its operations around 2011. It primarily designed, produced, marketed, and sold its own smartphone devices, which used its closed operating system (McNish and Silcoff 2016). However, Apple would release its first iPhone in 2007, eventually overtaking BlackBerry. In contrast to BlackBerry, Apple has controlled an electronics GVC: while Apple has been primarily

responsible for design, marketing, and sale functions in the U.S. market, its GVC partners (i.e., Toshiba, Japan; Infineon, Germany; Samsung, South Korea) have been producing key components that are eventually assembled abroad (i.e., Foxconn, China) and re-exported to Apple under contract trade. Moreover, unlike Blackberry, Apple has also operated as an anchor firm (i.e., Apple App Store) in a large ecosystem of independent app developers who can collectively grow to its operating platform (i.e., iOS) by introducing new apps. In other words, Apple has derived a sustainable competitive advantage from organizing and leading a platform-driven or digitized smartphone GVC. There remains disagreement over why BlackBerry declined, but a more comprehensive analysis of these GVC-related issues could provide helpful insights.

More generally, Canadian firms in the ICT industry could face new challenges as GVCs with American-led firms become more digitized in the 21st century (Butollo and Schneidemesser 2022; Loonam and O'Regan 2022). There is an established group of global Canadian tech companies (i.e., CGI, Open Text, and Shopify, founded in 1976, 1991, and 2006) alongside global upstream specialists in the automotive industry (i.e., Magna International and Linamar Corporations, founded in 1957 and 1966), among other non-primary industries. One important thing to explore is how enduring institutional barriers could undermine their potential to enter, organize, or lead digitalized GVCs. In addition, it is crucial to consider mature but geopolitically sensitive GVCs, including the historically U.S.-led semiconductor GVC (Crabtree 2023; Kanz 1994).

Researchers and policymakers could go even further by re-evaluating whether the U.S. is a reasonable benchmark for Canada in the first place. For instance, a relatively small open economy like Sweden deserves consideration. On the surface, it seems to share a similar economic profile with Canada: historical concentration of resources in primary industries (i.e., agriculture

and natural resource industries), heavy reliance on staple exports (i.e., timber), and historical economic underperformance (i.e., a productivity gap relative to Germany and the U.S.) (Bergh 2014; Magnusson 2000). Yet, the Sweden-U.S. R&D and productivity gaps have been historically smaller, on average, than the Canada-U.S. productivity gap—especially between 1870 and 1970 and after Sweden's economic crisis in the 1990s (Braunerhjelm and Henrekson 2013).

Moreover, as early as the mid-1800s, Sweden was already establishing what would become dominant multinational corporations and GVC leaders in these and other industries: financial services (Skandinaviska Enskilda Banken AB, 1856; and Svenska Handelsbanken AB, 1871), equipment-manufacturing (i.e., Epiroc AB, 1873), telecommunications (i.e., Ericsson, 1876), automotive (i.e., Volvo, 1927), furniture-retail (i.e., Ikea, 1943), clothing-retail (i.e., H & M Hennes & Mauritz AB, 1947), electrical equipment (ABB, 1988), and private equity (EQT AB, 1994). However, the proposed institutional framework calls for a more careful analysis of historical institutional differences that could call into question the suitability of Sweden as a benchmark for Canada. For instance, it is essential to bear these things in mind: as a former great power of Europe, Sweden was never governed under colonial rule; it had an extensive period of classical liberalism (i.e., the age of liberty) between 1720-1772; and at least since the late 1700s and especially after the 1990s, it has undertaken major market-friendly, institutional and policy reforms (Bergh 2014; Henrekson and Rosenberg 2001; Roberts 2002).

**Concluding Remarks**

In closing, it would be too simplistic to infer from this article that Canada can close its business performance gap by merely duplicating America's economic institutions and policies. However, it lays the foundation for understanding the underlying institutional forces behind this persistent gap. In doing so, it has the potential to facilitate new research and public discourses,

which could pave the way for appropriate new business strategies, institutional reforms, and policy responses.

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**Notes**

[1] An anonymous reviewer first emphasized the connection between these two countries' initial institutional differences and their economies' path dependencies.

[2] The focus is on England rather than Great Britain or Britain, which was initially comprised of England and Scotland. We could reasonably characterize these two kingdoms' union of crowns or *de facto* political union as Britain as early as 1603. During this period, Scotland's king, James I (previously James VI of Scotland), succeeded the late English queen, Elizabeth 1 (Keith 2014; Smith 1998). However, the passage of the 1707 Act of the Union in English and Scottish parliaments legally established this political union as Britain (Smith 1998).

[3] I decided to maintain the chronological flow of my narrative. However, revisiting earlier historical events could re-establish the hostile external conditions surrounding merchant shipping in the past. American businesses resorted to non-market strategies in the face of formidable barriers. I previously discussed Britain's early restrictive Navigations Acts and the colonial tax measures behind the 1775-1783 American Revolutionary War (Egnal 1988; Galiani and Torrens 2019; Harper 1942; Walton 1971). After passing retaliatory Navigation laws and diplomatically pursuing reciprocity in oceanic trade without success, the U.S. government would enter another costly but short-lived war with Britain (i.e., War of 1812-1815). However, some historians suggest that this war was terminated on relatively favourable peace terms (i.e., partially reciprocal American-British direct trade) for the U.S. (Hickey 2012; Kert 1998).

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**Table 1**: A comparative summary of the initial economic institutional characteristics (i.e., nature, incentive structures, persistence, and competence) of Canada and the United States.

| **Economic Institutional dimensions** | **Baseline country: Canada** | **United States versus Canada** |
|---|---|---|
| 1. Nature of economic institutional origins | Canada's complex sources of institutional origins:<br>• French and British (English) colonial origins.<br>• *British mercantilist institutions* with these multi-dimensional economic institutions: (a) Navigation Acts, (b) anti-competition regulations, (c) financial control structures, (d) creditor-friendly bankruptcy laws, (e) market-unfriendly patent system, and (f) relatively weak nationalistic orientation in the political-economy domain. | Compared to Canada:<br>• America's institutional origins emanated from British colonial origin rather than a duality of French and British colonial origins.<br>• America's fusion of a strong liberal ideology and British mercantilist institutions yielded *Americanized mercantilist institutions* with distinctive elements: relatively liberal mercantilist institutions. |
| 2. Incentive structures associated with economic institutional origins | • Incentive structures could be characterized by an initial mix of institutional barriers and enablers, favouring colonial economic organizations and relations. | • Compared to Canada, America's initial mix of institutional barriers and enablers encouraged departures from colonial economic organizations and relations. |
| 3. Persistence of incentive structures | • Key elements of the mercantilist incentive structure have persisted in Canada. | • Compared to Canada, the British mercantilist incentive structure was less persistent in the United States. |
| 4. Post-colonial institutional competence | • Diminished institutional competence (i.e., diminished ability to derive a comparative advantage from accommodating British mercantilist institutions) in a changing post-colonial environment. | • Compared to Canada, the United States had an enhanced institutional competence (i.e., the ability to derive a comparative advantage from relatively liberal mercantilist institutions) in a changing post-colonial environment. |

**Table 2**: Linking historical disparities in Canada-U.S. mercantilist institutions to Canada-U.S. business disparities in colonial and post-colonial GVC orientation.

| | **19th Century: Colonial GVCs** | | **20th century: Post-colonial GVCs** |
|---|---|---|---|
| | ➢ **Colonial GVC leaders**: British government-chartered enterprises, often monopolies, initially operated as colonial GVC leaders.<br><br>➢ **Canada-U.S. disparities in relative colonial-GVC orientation**:<br>• ***Canadian businesses***: Relatively strong orientation toward upstream specialist functions in agriculture and natural resource industries versus merchant shipping industry.<br>• **U.S. businesses**: Relatively strong orientation toward downstream specialist functions in the merchant shipping industry versus agriculture and natural resource industries. | | ➢ **Post-colonial GVC leaders**: American multinationals overtook their British counterparts to become post-colonial GVC leaders.<br><br>➢ **Canada-U.S. disparities in relative post-colonial GVC orientation**:<br>• ***Canadian businesses***: The automotive industry has a relatively strong orientation toward upstream functions.<br>• ***U.S. businesses***: Relative strong orientation toward downstream functions in the automotive industry. |
| | **Underlying institutional drivers** | | **Underlying institutional drivers** |
| | **Baseline colonial secondary industry:** Merchant shipping industry during the colonial era. | **Baseline colonial primary industries:** Agriculture and natural resource industries during the colonial era. | **Post-colonial secondary industries: A**utomotive industry after the colonial era. |
| **Selected Strategic Business Decisions** | **Potential incentive effects under Canada's mercantilist institutions versus more liberal American mercantilist institutions** | | |
| 1. **Innovation scale** (i.e., the share of business resources allocated to innovation activities). | • Significant *disincentivizing* impact on the scale of downstream innovations in Canadian versus American businesses. | • Significant *incentivizing* impact on the scale of efficiency-generating innovations in Canadian versus American businesses. | • Significant *disincentivizing* impact on the scale of downstream innovations in Canadian versus American businesses. |
| 2. **Innovation scope** (i.e., number of innovation types undertaken to generate value in the marketplace). | • Significant *disincentivizing* impact on the scope of downstream innovations in Canadian versus American businesses. | • Significant *incentivizing* impact on the scope of efficiency-generating innovations in Canadian versus American businesses. | • Significant *disincentivizing* impact on the scope of downstream innovations in Canadian versus American businesses. |
| 3. **International scale** (i.e., share of resources allocated to international business activities). | • Significant *disincentivizing* impact on the international scale of downstream activities in Canadian versus American businesses. | • Significant *incentivizing* impact on Canadian versus American businesses' scale of (a) staple or intermediate exports (i.e., agricultural and natural resource goods) and (b) advanced-intermediate or finished imports (i.e., machinery, equipment, and other manufactured goods). | • Significant *disincentivizing* impact on the international scale of downstream activities in Canadian versus American businesses. |
| 4. **International scope** (i.e., number of international markets served). | • Significant *disincentivizing* impact on the international scope of downstream activities in Canadian versus American businesses. | • Significant *incentivizing* impact on Canadian versus American businesses' concentration of two-way trade in Britain. | • Significant *disincentivizing* impact on the international scope of downstream activities in Canadian versus American businesses. |
| 5. **Market entry and exit speed** (i.e., speed of entry into and exit from a market or market segment). | • Significant *disincentivizing* impact on Canadian versus American businesses' entry and exit speed in emerging and declining market segments (i.e., new and declining merchant shipping segments). | • Significant *incentivizing* and *disincentivizing* impact on Canadian versus American businesses' entry and exit speed in emerging and declining market segments (i.e., new and declining agricultural segments). | • Significant *disincentivizing* impact on Canadian versus American businesses' entry and exit speed in emerging and declining market segments (i.e., new and declining automotive segments). |

**Table 3**: Relevant aspects of the rational choice, network, and behavioural economics perspectives that underpin various perspectives on the Canada-U.S. gap in business performance.

| **Fundamental properties and related assumptions** | **Rational-choice perspective [1]** | **Network perspective [2]** | **Behavioural economics perspective [3]** |
|---|---|---|---|
| 1. Primary motivation or goal | Business leaders (i.e., entrepreneurs, senior executives, and managers) want to maximize their firms' performance or value. | Business leaders want to jointly optimize and appropriate the value of their networked business activities compared to what is attainable if they operate independently. | Business leaders are satisfied with performance outcomes that meet their aspiration levels (i.e., currently acceptable performance levels conditioned on the potential for learning and future improvements), whether involved in independent or networked business activities. |
| 2. Nature of information problems | Business leaders primarily encounter risks from their inability to know which events will materialize. However, in addition to knowing the alternatives, they can objectively assign probabilities to these alternatives. | Similarly, this perspective assumes that business leaders primarily encounter this form of risk: the probability distribution of the alternatives is known. | Business leaders are expected to face calculable risks. But they are primarily expected to encounter more severe information problems in the form of uncertainty—which refers to cases in which they can neither determine their full range of alternatives nor reliably assign probabilities to such alternatives. |
| 3. Decision-making process | Given their presumably stable and consistent preferences, business leaders must make purposeful, informed, and sound decisions. This involves processing available information objectively and deliberatively. | Business leaders are similarly assumed to have stable and consistent preferences. In addition, they are expected to correctly process information when pursuing their goals. They are specifically likely to do so when evaluating alternatives, such as independent (competitive) operations versus interdependent (collaborative) operations. | As boundedly rational agents, business leaders' preferences could be unstable and inconsistent over time or across different situations. They could gravitate toward bias-prone mental shortcuts or heuristics that can help them cope with uncertainty, simplify complex situations, and expedite decision-making processes. Under these conditions, business leaders are susceptible to error-prone decisions due to bias-prone information processing. |
| 4. Nature of economic exchanges | Firms primarily operate independently in competitive or arm's length exchanges with other firms. | Firms primarily operate interdependently in collaborative economic exchanges with other firms. These exchanges could involve networked or socially embedded flows of complementary resources (i.e., knowledge and technologies), capabilities (i.e., task-specific routines), and activities (i.e., sequenced business tasks running from business conception to the design, production, sale, and distribution of finished goods or services, combined with after-sale support). | Business leaders and their firms can operate independently or interdependently in economic exchanges with a varying degree of competitive or cooperative orientation. |
| 5. Optimality or value-generating potential of business activities | It is possible to maximize the returns to privately and publicly deployed resources. | It is possible to maximize private and social benefits for network partners and economies across national boundaries, respectively. In other words, the sum of the private and social benefits from networked activities is not only expected to exceed the cost of privately and publicly deployed resources across national boundaries but also exceed the value (i.e., returns or benefits net of the costs) that can be derived from independent business activities across such boundaries; or the value attainable through a vertically integrated organizational structure. | Sub-optimal returns to privately and publicly deployed resources are likely to occur. |
| 6. Potential policy prescriptions:<br><br>*How could innovation and international business promotion policies address the Canada-U.S. gap in business performance?* | It is crucial to mitigate systematic departures from the optimal private and social returns to innovation and exporting or other international business activities. This calls for public or collective solutions to market failures (i.e., resource misallocation or underinvestment problems due to malfunctioning markets or misaligned incentives) and externality problems (i.e., unintended positive or negative effects of economic activities that the private sector does not fully internalize). Pro-competition policies deserve special attention. | Public policies could focus on removing or reducing common barriers (i.e., knowledge-transfer, technological, transaction-cost, or political frictions) to entry and upgrading in global value chains (GVCs). In other words, private and public initiatives can make it less difficult or costly for Canadian companies to actively participate and upgrade their processes, products, positions, and functions in GVCs. In addition, public policies could incentivize GVC and non-GVC firms to capitalize on their complementary advantages or offerings and knowledge spillovers. This calls for an appropriate combination of pro-competition and pro-cooperation policies. | It is appropriate to focus on rectifying Canadian business leaders' myopia-driven underinvestment in R&D and intellectual property (IP) ownership. Private or public interventions could include strategies or initiatives that pre-commit Canadian business leaders or their companies to more performance-enhancing investment and ownership patterns over the long term. |
| Relevant sources | Arrow 1994; Becker 1990; Sugden 1991. | Granovetter 1985, 2017; Larson 1992; Powell 1990; Uzzi 1996; Williamson 1991. | Kahneman, 2011; Rabin 2013; Simon 1955; Tversky and Kahneman 1974. |

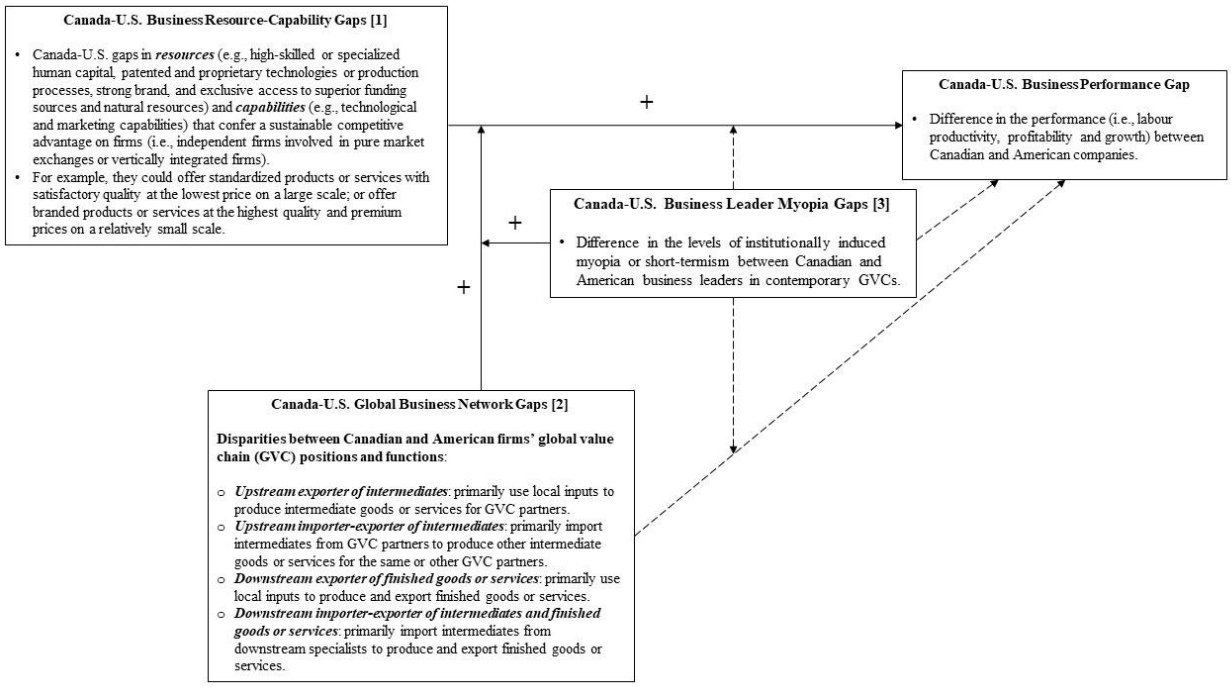


**Figure 1**: An institutional framework on the potential linkages between the Canada-U.S. gap in business performance and Canada-U.S. gaps in business resource-capability bundles, GVC positions and functions, and business leader myopia. The plus signs indicate the anticipated positive or amplifying effects of this trio of Canada-U.S. gaps on the Canada-U.S. business performance gap. Meanwhile, the dashed lines convey other potential relationships beyond this framework's scope and are not addressed in this article.