



Supply Chain Consultations

Standing Committee on Transport, Infrastructure and Communities

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1. Manufacturing reshoring and import substitution have been major trends in Western countries for years now. The economic crisis of 2008 and the COVID-19 pandemic highlighted the risks and gaps associated with offshoring manufacturing activities and globalizing supply chains. Quebec cannot simply watch the train go by. It is important for Quebec and Canada to be engaged in the reshoring and substitution processes just as their main competitors and economic partners are.

We must first define our terms. On these issues, a distinction must be made between two things: the reshoring of production activities, which consists of returning to Canada, or at least North America, certain manufacturing activities that were previously offshored or outsourced abroad, particularly to low-wage countries, and import substitution, which consists of replacing some of our imports of inputs and finished manufacturing products with a local supply from Quebec or Canadian suppliers.

For Quebec and Canada, the focus must be on the substitution of manufacturing imports, as we are not a country with many offshoring industries, but we are highly dependent on imports in various manufacturing sectors. Some figures better illustrate the issue: Quebec's manufacturing sector is currently over 65% dependent on imports. In other words, 65% of total domestic demand in Quebec for inputs and manufacturing products is met by imports, and only 35% by local manufacturing in the province. Ontario is 68% dependent on imports, British Columbia, 80%, and Canada as a whole, 45%.

There are clearly many consequences of this. Some brief examples for Canada as a whole follow:

First, the COVID-19 crisis revealed the vulnerabilities of economies that are too dependent on global value chains. They were destabilized by the closure of plants and restrictions on exports, highlighting the risks of deindustrialization and offshoring. The rise in geopolitical tensions such as economic nationalism around the world will only increase the number and severity of the risks associated with too much globalization of supply chains. Manufacturing businesses and associations themselves recognize this: in our work, we surveyed over 200 of them, and the vast majority reported that the main lesson of the health crisis is the need for a significant shortening of supply chains.

Second, Canada's relatively heavy dependence on manufacturing imports has structural effects: a persistent trade deficit in the trade of goods, which generally ranges from \$10 billion to \$20 billion (2021 was an exception in this respect); a steady decline in the manufacturing sector's share of the economy, which only increases our dependence on imports (in Quebec and Ontario, for example, manufacturing has fallen from 20% of GDP in the late 1990s to just over 10% of GDP today, while manufacturing's share of the economy remains at about or somewhat above 20% in the United States and in several European and, obviously, Asian economies.

Finally, there are several benefits from greater local procurement for Canadian manufacturers themselves: independence and resiliency of supply chains; better control over delivery and production times; improved traceability of inputs and increased knowledge of suppliers; better quality control; operational flexibility and agility; development of local know-how; in many cases in the current context, reduced costs; a smaller environmental footprint; lower reputational and operational risks, etc.

These are some reasons why we strongly recommend that the federal government add import substitution strategies to its economic, industrial and trade policies, and support the provinces in this regard. We are not alone in recommending this: Canadian Manufacturers and Exporters and the report from Canada's Industry Strategy Council released two years ago also support this shift.

**2. Canada has always been and remains a laggard in terms of research and development (R&D) expenditures, particularly compared with the levels in the average OECD or G7 country. This lack of R&D spending affects Quebec and Canadian supply chains.**

First, we must always remember that, in advanced economies, the manufacturing sector has always been and remains the main driver of innovation and R&D. As a result, more deindustrialization means less innovation and less ability to market our R&D, which reinforces the deindustrialization process, and so on. This is a vicious cycle that must be broken.

Second, partly because of this relative weakness of its manufacturing sector, Canada has long been and remains well behind its main trading partners and competitors in R&D. For example, the latest statistics available show that R&D expenditures as a percentage of GDP in Canada are about 1.5% to 1.6%, compared with about 1.9% in Ontario, 2.2% in Quebec, 2.5% in the average OECD country and 2.8% in the average G7 country.

This general R&D gap in Canada is already a problem by itself, but we must also point out that nearly 60% of total public and private R&D expenditures in Canada today are made in the service industry rather than manufacturing. This trend is even more striking in Ontario. However, in most Western countries and even in Quebec, it is the manufacturing sector that drives or is the largest beneficiary of R&D expenditures. Here again, Canada is somewhat at odds with Western trends.

This state of affairs has many consequences, the main ones being as follows:

- (a) First, it clearly reinforces Canada's dependence on manufacturing imports, as its weaknesses in R&D and manufacturing innovation put it at a disadvantage relative to foreign manufacturers, who are more innovative, more productive and therefore more competitive.
- (b) Second, in the same vein, it clearly affects productivity rates in Canada's manufacturing sector: because Canada's manufacturing sector is less innovative and the commercialization

and corporate integration of R&D are somewhat less common here than elsewhere, its productivity rates remain well below those of the average OECD country and the US in particular. This puts Canada's manufacturing sector at a disadvantage next to its competitors and reinforces Canada's dependence on imports.

(c) Third, it has is also exacerbating the problems related to the worsening labour shortages across Canada, as, owing to low R&D and innovation rates, Canada's manufacturing sector is also lagging in terms of digitization, automation and integration of state-of-the-art technology, including robotization, artificial intelligence and 3D printing. Again, this failure to keep pace affects productivity and therefore the competitiveness of Canadian manufacturers, heightening Canada's dependence on imports.

Moreover, for all these reasons, many of the manufacturing associations and businesses that we consulted in our work also said they hoped that tax and financial incentives for R&D and policies that will make it financially and logistically easier to integrate R&D and 4.0 technologies into businesses will be enhanced in the years ahead. We recommend the same.

**3.** One of the concrete measures the IRÉC suggests to support manufacturing reshoring and import substitution is federal carbon pricing on imports. This measure would rebalance the market in a fair way for Quebec's industries, which are subject to strict environmental regulations and, for some, domestic carbon pricing.

Such a tariff seems clearly in Quebec's interest. Many Quebec businesses have adopted innovative solutions to reduce their GHG emissions, making Quebec's manufacturing sector one of the greenest and most electrified in the world. Of particular note is the ArcelorMittal steel mill, which uses hydroelectricity, while the vast majority of steel mills run on fossil fuels.

Apart from the benefits for Quebec of imposing a carbon price on imports, this measure would deliver many benefits for the Canadian manufacturing sector as a whole.

Yes, it is a controversial policy, and some still disagree with this type of approach. In its 2021 Green Deal, the European Commission announced the implementation of a carbon adjustment mechanism at borders. These are essentially tariffs to balance import prices with those of European products subject to carbon pricing and to prevent offshoring by European producers seeking to skirt the carbon price. The tariff will first apply to the steel, aluminum, cement and fertilizer sectors beginning in 2026.

Note that the agreement to eliminate customs duties on American imports of European steel and aluminum, signed by the US and the EU at the G20 in Rome in 2021, already provides cooperation mechanisms and further negotiations to limit imports of high-carbon Chinese metals. The agreement also requires that products destined for the US be manufactured from steel or aluminum

produced entirely in Europe. The objective is to prevent metals from China or other non-EU countries from being minimally processed in Europe before being exported to the US.

Thus, the main argument for such a policy in Canada is that our main trading partners are currently moving in this direction. In addition, from an environmental standpoint, several provinces, including Quebec, remain dependent on imports in several key sectors that, given the energy sources and manufacturing processes used abroad and the transportation needed to import them, often have a higher carbon footprint than equivalent local production. Some examples are food imports from Latin America or Asia, pharmaceutical and chemical inputs from India or China, and raw or primary metals from Brazil, Chile, China or African countries such as the Congo.

In addition, carbon pricing at the borders could, at the margin, be a disincentive for offshoring of manufacturing to low-wage countries, which are typically more environmentally permissive. Furthermore, without a carbon tax at the borders, a production and export subsidy program would inevitably be needed to support the competitiveness of Quebec and Canadian steel mills and aluminum smelters, among others. However, the issue is larger than that: Canada's domestic carbon price, which will increase in the coming years and decades, will unquestionably put the country's entire manufacturing sector at a disadvantage, particularly relative to its Asian competitors, which are not subject to the same rules. The issue is therefore not just an environmental one or even a trade matter, but clearly an issue of free and fair competition—in essence, of ensuring a free market.

We are also not alone in recommending this policy. The organization Reshoring Canada, whose main partners include *Manufacturiers et Exportateurs du Québec* and Canadian Manufacturers and Exporters, also support it. Such policies have also already been proposed in the US Congress.

**4.** Canada is traditionally a non-interventionist country as regards industrial policy, which holds it back in several areas compared with its key trading partners and competitors. The lack of federal government involvement in manufacturing has real impacts, and this should be addressed.

In terms of industrial policy, Canada—at least when it comes to the federal government—continues to intervene very little and develop few strategies compared with the European economies or even the US. In Europe and more broadly, among OECD countries, for example, since the 2008 financial crisis, industrial subsidies have been increasing significantly, in part to foster the energy transition and, now, to promote reindustrialization and reshoring. We will not list every such European program, as there are now too many.

However, consider for a moment our neighbours in the US: in part because of the trade, fiscal and industrial policies of the Obama and Trump administrations since the 2008 financial crisis, the US has increased the net number of manufacturing jobs every year from 2010 to 2019, in sectors such

as transportation equipment, electronics, electrical products and components, chemical and pharmaceutical products, and—very significantly in 2020—medical equipment. From a total of less than 12 million manufacturing jobs in 2009, the US has increased this figure to over 13 million in 2019, the level seen prior to the financial crisis, in 2007.

Under the Biden administration, far from being abandoned, the trade policies of the previous governments concerning China (and to some extent Canada), but particularly industrial policies promoting local procurement (Buy American/Buy America), reshoring and the granting of subsidies to producers of critical materials and strategic manufacturing goods, were instead expanded in 2021. Beginning in June, for example, the Biden administration published a report (*Building Resilient Supply Chains*) commissioned by the Commerce, Energy, Defence and Health and Human Services departments identifying four “critical” sectors for which American supply chains and production need to be strengthened: semi-conductors, large capacity batteries, rare earths and strategic minerals, such as lithium and graphite, and pharmaceutical products and their active ingredients.

The Biden administration also announced the creation of a consortium responsible for identifying 50 to 100 pharmaceutical products of strategic interest for which production should be reshored to the US, as well as US\$17 billion in preferential loans, through the Department of Energy, to increase local production of lithium batteries for electric vehicles and R&D in this field. Finally, investments of US\$4 billion were announced to stimulate production and strengthen local agri-food supply chains, and a major interdepartmental initiative was launched to identify and eventually extract and process new rare earth deposits in the US.

Several other proposals put forth in the report, if implemented, could also have significant impacts on American manufacturing capacities: funding of new factories by the US Export-Import Bank; making public funding of R&D, particularly in green technologies, subject to local production and commercialization requirements; mobilizing the US Development Finance Corporation to fund and develop foreign mining and industrial projects specifically designed to strengthen American supply chains; and generally and permanently adapting American trade policies—and even agreements in effect—to the imperatives of reshoring manufacturing activities and strengthening supply chains.

In addition to the above, the main consequence of the lack of federal government involvement in industrial and manufacturing issues is again to put Canadian producers at a disadvantage relative to their foreign competitors and thus discourage industrial development and Canadian manufacturing exports while increasing our dependence on imports.

In a more structural way, the lack of strong industrial policies in Canada has also discouraged domestic cooperation in the manufacturing sector and the creation of strong industrial clusters. Cooperation between manufacturing companies in Canada and institutions of higher education,

basic and applied research centres, laboratories, public authorities and even their own suppliers is relatively limited in Canada compared with other Western countries, or even Quebec. Here again, this has a negative impact on innovation, productivity and thus business competitiveness.

Finally, all this also has major impacts not only on the strength of Canada's manufacturing sector, its domestic and international competitiveness, and its dependence on imports, but also on its very composition. Not only is Canada's economy still rather extractive in nature, exporting raw materials that are barely processed, but the country's manufacturing sector itself also remains fairly dependent on foreign companies. For example, foreign multinationals operating in Canada account for no less than 55% of Canadian goods imports and nearly 65% of Canadian goods exports.

Again, we are not the only ones recommending that Canada finally adopt industrial policies. Canada's Industry Strategy Council presented a report to the federal government in late 2020 that recommended a major shift in this respect, even advocating for an approach similar to the planned strategies of industrial powers like China and Germany.

The Council identified four priority manufacturing sectors—health and biosciences, “value-added resources” (raw materials and rare earths), aerospace and automotive manufacturing—and discussed “incentives for companies that turn domestically produced IP into locally produced products” and “strategic domestic procurement, particularly in strategic sectors impacted by COVID-19 and/or where there is opportunity to create scale.”

**5.** Some critics of manufacturing reshoring and import substitution may believe that shortening the Quebec and Canadian supply chains is a protectionist practice. This is a misunderstanding that is unfortunately too widely held. In general, reshoring and import substitution strategies are not trade policies but industrial policies. The goal is absolutely not to close the Canadian market to foreign competition with protectionist barriers as they existed, for example, before the liberalization of trade that began with the various GATT and WTO rounds.

On the contrary, it promotes industrial development, locally and nationally, to boost the existing manufacturing sector and enable it not only to export more, by being more competitive on international markets, but also to more effectively supply the domestic market, by being more competitive with imports and less dependent on them.

Keep in mind that our research has confirmed that by far the main reason that Canadian and Western manufacturers offshore or outsource their production abroad, contrary to popular belief, is not to reduce costs but to have access to foreign markets. As a result, one of the key strategies necessary to discourage offshoring is to support exports and exporters as much as possible in order to give them access to foreign markets without having to offshore or outsource.

More broadly, many policies that promote reshoring or import substitution also have little in common with protectionism or even trade policies. At most, they could be described as slightly protectionist: think of industrial investments, industrial cooperation and policies pairing producers and suppliers; tax and financial incentives, logistical and financial support for R&D and automation; support for decarbonization and industrial electrification; support for succession planning and business transfers; or even preferential public procurement policies.

6. In our reports on manufacturing reshoring and import substitution, we note the importance of various levels of government supporting automation in the manufacturing sector. Could automation improve the resilience of Quebec and Canadian supply chains if measures were in place to help manufacturers with this process?

First, there are clearly major benefits to automating manufacturing in terms of productivity and thus competitiveness. The manufacturing sector in Canada is behind in this regard: in 2020, for example, Canadian manufacturing had an automation rate of 176 robots per 10,000 employees, the traditional measure of automation. In this respect, we are about equal with Slovakia or the Czech Republic. This rate is between 200 and 300 in most countries in Western Europe, 250 in China and the US, 371 in Germany, nearly 400 in Japan and nearly 1,000 in South Korea.

This gap affects the competitiveness of Canadian businesses and consequently limits their export opportunities and reinforces our dependence on imports, which often cost less because they are produced by automated processes. By maximizing productivity and minimizing costs, particularly labour requirements, automation is also a key solution for labour shortages. Automation is therefore not limited to just high-tech industries; it is essential to the entire manufacturing industry.

A very interesting article in *Les Affaires* in April 2022 on automation and roboticization in the lumber industry made this point effectively. Businesses that invested the most in these technologies in recent years not only grew faster without increasing their labour requirements but also reduced their costs, minimized their inputs and maximized their output. They are therefore better positioned than their competition, particularly in the US, which is highly automated.

In general, the two greatest obstacles to automation and roboticization in manufacturing are, first, the lack of internal expertise (leaders often do not know what technology is suited to their production line, what the benefits and costs would be or how to integrate it into their business) and, second, access to the liquidity and funding needed for the transition, which can be quite costly.

Accordingly, on the one hand, new programs and initiatives must be developed to provide technical and logistical support for innovation and technological modernization to better train and help managers and employees select, integrate, use and assess the benefits of 4.0 technologies; and, on the other hand, public, private and institutional financial stakeholders must also help spark,



support and guide new business investments in this regard, from R&D to the acquisition of new tools and new production technologies.

7. More and more countries party to free trade agreements disregard certain parts of their them for manufacturing reshoring and import substitution purposes. In addition, public procurement access clauses favour foreign businesses over Quebec's and Canada's manufacturing sectors. Canada should review its position on requiring local content in public procurement. This would have many long-term benefits for the manufacturing sector and supply chains in Quebec and Canada.

First, the Government of Canada must expect, particularly in the wake of the armed conflict in the heart of Europe, that the understanding and interpretation of and even compliance with the principles of reciprocal non-discrimination set out in international trade agreements on government procurement will be fundamentally changed over the short and medium terms. Second, for this reason, the government must expect that the exceptions and exclusions set out in these agreements on government procurement for what is referred to as "legitimate objectives," which allow for bypassing the principles of reciprocal non-discrimination, will be invoked more often and even instrumentalized by Canada's trading partners.

The "legitimate objectives" related to national security, health and safety of workers and consumers, environmental protection and the procurement of critical goods (such as pharmaceuticals, agri-food or state-of-the-art technology), among others, will now be used in a fairly regular way to benefit local suppliers in public tendering processes. We therefore believe that the Government of Canada must likewise keep this option open.

Third, as is the case in the US with its Buy American provisions, we believe that the definition of the concept of a "Canadian supplier" should include a threshold for local procurement related to the value of the inputs or components of the goods in question, and preferential margins based on that threshold should apply.

Fourth, we want to stress that environmental, social and governance criteria are usually accepted by government procurement law and can indirectly benefit local suppliers. The same is true of the criteria for creating circular economy and short-channel systems, including in agri-food procurement.

Finally, and we believe this is particularly important, non-profit organizations, including co-operatives, are exempt from the principles of non-discrimination in the WTO's *Agreement on Government Procurement*. Moreover, non-profits and, thus, co-operatives are also exempt from the CETA chapter on government procurement for urban planning matters. For towns and cities, this opens up interesting opportunities to foster local procurement and economic development through the social economy.