

# Special Report

## Reality check: Canadian exposure to U.S. protectionism



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Since his inauguration in January 2016, President Donald Trump has brought his protectionist agenda to centre stage. Within days of taking office the new president pulled the U.S. out of the Trans-Pacific Partnership, which was then in the process of ratification. He then imposed import duties on solar panels and washing machines in moves aimed at China and South Korea respectively. Canada has also been targeted, facing a difficult renegotiation of NAFTA and being struck by counter-vailing duties on softwood lumber, newsprint and aerospace equipment. Raising the ante, the president has also threatened tariffs on steel and aluminum imported from Canada if a new North American Free Trade Agreement is not reached (the U.S. imports more of both metals from Canada than from any other country).

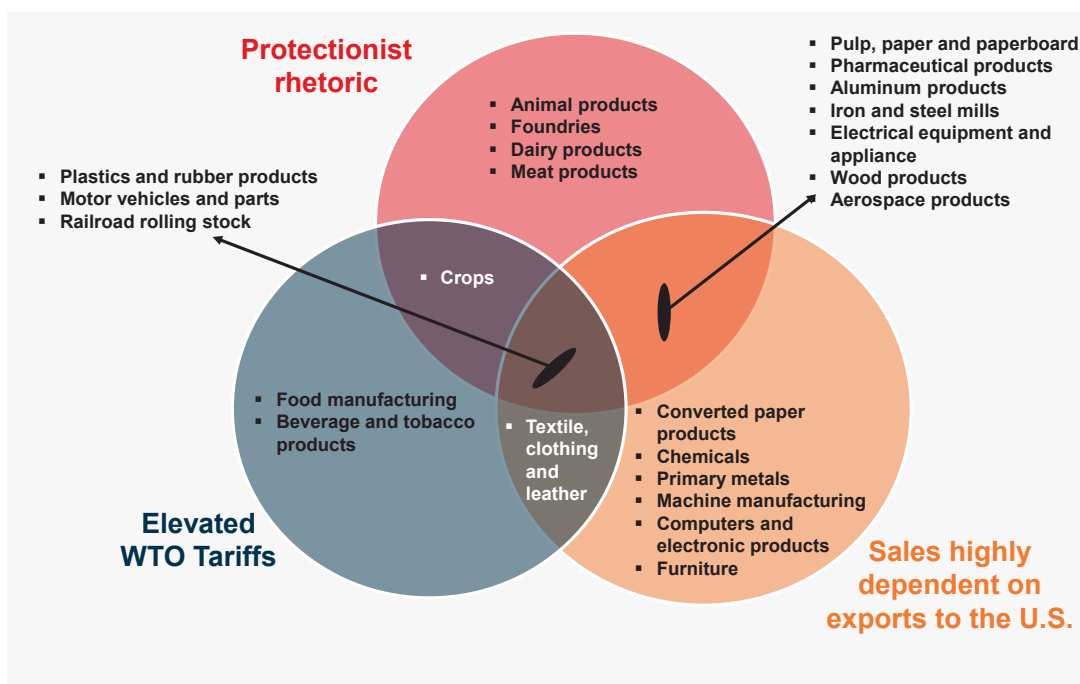
Considering these recent developments, many are worried about the impact that rising U.S. protectionism could have on the Canadian economy. Quantifying that risk, however, remains a complex task. It is not enough to simply say that Canadian goods exports to the U.S. amount to roughly a fifth of Canada's nominal GDP and thus conclude that such a big portion of output is at risk. For one, not all exporting industries are threatened. And those that are have different degrees of exposure depending on the value added of their respective exports to the U.S. In this report, we identify the Canadian industries most vulnerable to U.S. protectionism and assess the weight of their exports to our southern neighbour in the national and provincial economies.

### The industries most exposed

First, it is important to keep in mind that not all Canadian exports to the U.S. are under threat. Our investigation begins with identification of the industries most exposed according to three risk factors. Some industries face more than one of these risk factors, increasing their overall vulnerability.

#### Protectionist threat: industries at risk

Canadian industries grouped according to their risk factors

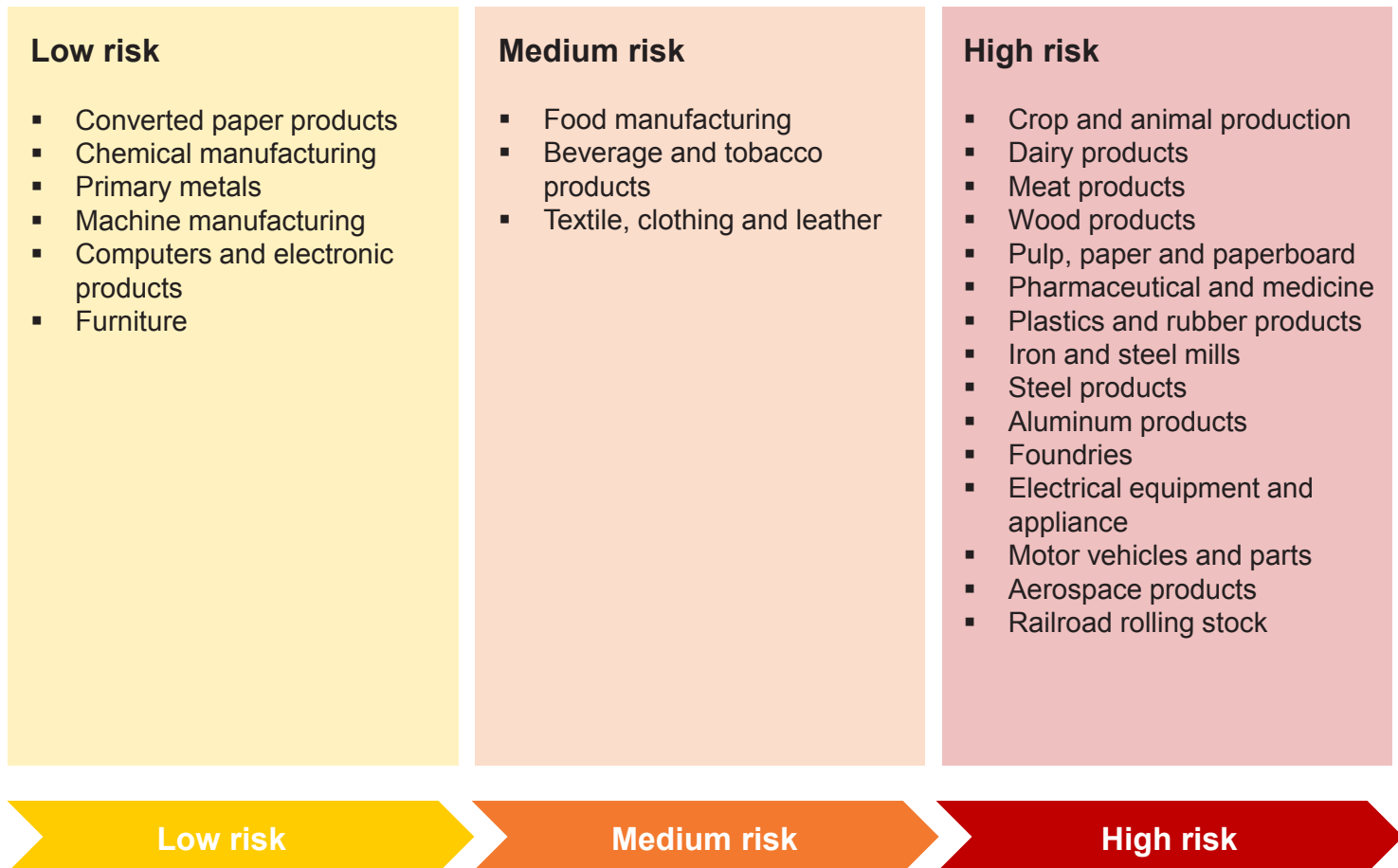


## For each of these factors we define a different level of risk:

- 1. High risk:** All industries for which the U.S. has already decreed protectionist measures or has suggested that they could come, whether or not Canada was the primary target of U.S. rhetoric.
- 2. Medium risk:** All industries not in group (1) on which, without NAFTA, the U.S. would impose high tariffs under the most-favoured-nation clause of the World Trade Organization (WTO). We assume that if the U.S. were to pull out of NAFTA – an increasingly unlikely scenario – these industries would be hit with stiff tariff barriers.
- 3. Low risk:** All Canadian manufacturing industries not in groups (1) or (2) that export 25% or more of their output to the United States. Though not exposed to open protectionist threat, these industries are deemed vulnerable simply by virtue of their dependence on the U.S. market.

## Protectionist threat: industries at risk

Canadian industries grouped by degree of vulnerability



## Industries targeted by protectionist talk or actions

Gauging precisely which industries will be most affected by the rise of protectionism in the U.S. is complex because of the many contingencies involved. For example, some parts of our economy (e.g. steel and aluminum production) will be at risk only if no agreement is reached to keep NAFTA in place, an outcome that we think is unlikely but which we cannot exclude. Given that multiple hypothetical scenarios intersect, we decided to rate as high-risk those industries that have already been the object of protectionist measures or protectionist talk by the U.S. administration.

The first sector in this group is agriculture. U.S. inclinations to protectionism in farm production hardly began yesterday – think of the requirement instituted early in this decade for country-of-origin labelling of Canadian hogs and cattle. More recently, Washington has severely criticized the Canadian system for supply management of dairy products, eggs and poultry. Its concern here is not to reduce Canadian exports, which in this case are minimal, but to gain entry to the Canadian market for U.S. producers. The risk to Canadian agriculture is the possibility of concessions on supply management in the current NAFTA negotiations or of retaliatory measures if Canada does not yield.

Also in the crosshairs of the Trump administration is the auto industry, for which the U.S. wants changes in certain NAFTA rules of origin. Its negotiators seek to raise the quota for North American content (currently 62.5%) and add steel and electronic equipment to the list of auto parts subject to provenance rules. Negotiators also wanted to introduce a U.S. content minimum (50%) but that request has reportedly been dropped. Be that as it may, the automotive sector remains at risk.

Threats to Canadian automakers could have repercussions for related industries. For instance, the manufacture of tires for export to the U.S. looms relatively large in the Nova Scotia economy. The same is true of plastic auto parts which in 2017 accounted for 20% of the total value of plastic products exported to the U.S. We accordingly identify plastics and rubber products as industries vulnerable to U.S. protectionist talk.

Next comes the Canadian aerospace industry, a no-brainer for inclusion among high-risk industries after Washington's levy on Bombardier of countervailing and anti-dumping duties of almost 300% in response to repeated complaints from Boeing. Though the U.S. International Trade Commission has since ruled these tariffs unjustified, aerospace remains vulnerable to a new U.S. offensive.

The Canadian iron and steel industry is also threatened by laws extending Buy-American rules to force all U.S. government agencies to use only U.S. iron and steel in infrastructure

projects. Such a law was implemented in Texas last September and similar legislation could take effect in New York State on April 1. Then there is the U.S. administration's recent imposition of steel and aluminum tariffs that could apply to Canada if the U.S. withdraws from NAFTA.

Also among the high-risk industries is pulp and paper. In 2015 the U.S. imposed countervailing and antidumping duties on supercalendered (glossy) paper. In early 2018 it added countervailing duties on uncoated paper (newsprint).

The softwood lumber industry is included here following the imposition of tariffs earlier this year.

Electrical equipment and components manufacturing is on the list after the U.S. imposition this year of "safeguard" tariffs on imports of washing machines and solar panels, though these tariffs do not, at least for now, apply to imports from Canada. Pharmaceuticals and railroad rolling stocks are included for similar reasons.

## Weight of high-risk exports in the Canadian economy

It remains to gauge the importance of the above-mentioned industries' exports to the U.S. in our economy. As a starting point, we could mention that the value of these exports is roughly equivalent to 11.5% of Canada's nominal GDP. But this simple calculation overstates the share of our economy that is truly exposed to U.S. protectionism. What's really at risk is the value added of these exports, not the whole amount. Luckily, some data developed by Statistics Canada from the 2013 input-output table allow us to calculate the share of nominal GDP and employment that is actually dependent on a given industry's exports to the United States. This share consists of direct effects (value added by the exporting industry) and indirect effects (value added by the Canadian portion of its supply chain)<sup>1</sup>. The share thus calculated gives a more precise – and less alarming – picture of exposure since it excludes the inputs of export industries that do not contribute to Canada's GDP (e.g. inputs that are imported).

Table 1A shows, for each industry identified above as high-risk, the shares of Canadian and provincial nominal GDPs dependent on its exports to the U.S., as measured by the value added by the export industry itself plus the value added by its Canadian supply chain.

<sup>1</sup> Induced effects, i.e. the effects on GDP arising from potential job losses and the resulting reduction of consumer spending that would inevitably occur if the U.S. decided to implement protectionist measures aimed at Canada, are not taken into account.

**Table 1A - Value added dependant on exports to the U.S. of industries threatened by Washington's protectionist rhetoric (% of nominal GDP, 2013)**

NAICS Code - Exporting industry	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
111, 112 - Crop and animal production	0.3%	0.0%	0.7%	0.1%	0.3%	0.1%	0.2%	0.9%	1.3%	0.4%	0.2%
3115 - Dairy products manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3116 - Meat products manufacturing	0.1%	0.0%	0.1%	0.0%	0.0%	0.2%	0.1%	0.3%	0.2%	0.1%	0.0%
321 - Wood products manufacturing	0.3%	0.0%	0.0%	0.2%	0.9%	0.4%	0.1%	0.2%	0.2%	0.2%	1.1%
3221 - Pulp, paper and paperboard mills	0.3%	0.2%	0.1%	0.3%	1.1%	0.6%	0.2%	0.1%	0.0%	0.2%	0.3%
3254 - Pharmaceutical and medicine manufacturing	0.1%	0.0%	0.2%	0.1%	0.0%	0.1%	0.2%	0.2%	0.0%	0.0%	0.0%
326 - Plastics and rubber products manufacturing	0.3%	0.0%	0.0%	1.0%	0.1%	0.4%	0.4%	0.2%	0.0%	0.1%	0.1%
3311 - Iron, steel mills, ferro alloy manufacturing	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
3312 - Steel products from purchased steel	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%
3313 - Alumina and aluminum products	0.2%	0.0%	0.0%	0.0%	0.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%
3315 - Foundries	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
335 - Electrical equip., appliance and comp. manufacturing	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.1%	0.0%	0.0%	0.1%
3361 - Motor vehicle manufacturing	1.0%	0.1%	0.2%	0.2%	0.2%	0.4%	2.2%	0.4%	0.2%	0.2%	0.2%
3362 - Motor vehicle body and trailer manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
3363 - Motor vehicle parts manufacturing	0.4%	0.1%	0.0%	0.0%	0.1%	0.2%	0.9%	0.1%	0.0%	0.1%	0.1%
3364 - Aerospace products and parts manufacturing	0.3%	0.0%	0.8%	0.5%	0.0%	0.8%	0.2%	0.7%	0.0%	0.0%	0.1%
3365 - Railroad rolling stock manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>3.6%</b>	<b>0.6%</b>	<b>2.3%</b>	<b>2.5%</b>	<b>2.9%</b>	<b>4.3%</b>	<b>5.1%</b>	<b>3.5%</b>	<b>2.3%</b>	<b>1.4%</b>	<b>2.3%</b>

NBF Economics and Strategy (Calculations with data from Statistics Canada - table 381-0032)

The table reports that, in 2013, 3.6% of Canada's nominal GDP consisted of the Canadian-added value incorporated in exports to the U.S. of industries explicitly threatened by U.S. protectionist rhetoric. Ontario has the highest exposure, 5.1%, by virtue of the weight in its economy of an auto industry that exports heavily to the United States. Note that every other province adds some value to this industry's exports to the U.S. even though few of them export much of its output. In other words, every province has producers that, without necessarily exporting motor vehicles themselves, supply producers in other provinces that do.

Quebec follows with an exposure of 4.3%, mainly because of the weight in its economy of aluminum and aerospace production – its two largest export categories – and of papermaking. Manitoba's exposure is almost equal to the countrywide average, thanks to the weight of agriculture in its economy together with the non-negligible weights of aerospace and motor vehicle production.

At the other end of the spectrum, Alberta and Newfoundland & Labrador are the least exposed provinces, no doubt because of the preponderance of crude oil and petroleum products in their exports to the United States. We doubt these goods will come under threat from U.S. protectionism given Washington's concern for U.S. energy security. Petroleum-product exports also weigh heavily in New Brunswick's economy, but so do forest-product exports – almost as heavily as in B.C.'s economy.

## Industries that could be subject to high tariffs if the U.S. withdraws from NAFTA

Certain industries not explicitly targeted by U.S. protectionist talk could nevertheless be hit hard by a collapse of NAFTA. We assume that if the U.S. were to withdraw from NAFTA (not our baseline scenario), its trade with Canada would be subject to most-favoured-nation tariffs under WTO rules. Following are the industries that would be slapped with high tariffs in that event:

- food manufacturing other than dairy and meat products (included among industries vulnerable to protectionist rhetoric), seafood preparation and packaging, and animal feed;
- beverage and tobacco products;
- textile and clothing production.

Table 1B shows the shares of Canadian and provincial nominal GDPs accounted for by added value incorporated in exports to the U.S. by each of these industries, as in Table 1A.

**Table 1B - Value added dependant on exports to the U.S. of industries that could face high tariffs if the U.S. withdraw from NAFTA (% of nominal GDP, 2013)**

NAICS Code - Exporting industry	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
311 - Food man. excluding 3111, 3115, 3116 and 3117	0.4%	0.0%	1.9%	0.1%	0.2%	0.3%	0.5%	0.9%	1.2%	0.2%	0.2%
312 - Beverage and tobacco products manufacturing	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
313 to 316 - Textile, clothing and leather	0.1%	0.0%	0.0%	0.1%	0.0%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%
<b>Total</b>	<b>0.5%</b>	<b>0.1%</b>	<b>1.9%</b>	<b>0.2%</b>	<b>0.3%</b>	<b>0.5%</b>	<b>0.6%</b>	<b>1.0%</b>	<b>1.2%</b>	<b>0.2%</b>	<b>0.2%</b>

NBF Economics and Strategy (Calculations with data from Statistics Canada - table 381-0032)

For these industries, Prince Edward Island is the most-exposed province because of the weight of food exports, especially frozen french fries, in its economy. The above-average exposure of Saskatchewan and Manitoba is attributable to oilseed products. Quebec and Ontario exposure is close to the countrywide average.

## Industries vulnerable because of high dependence on the U.S. market

A third group of industries has not been the object of explicit U.S. protectionist aims, and the tariffs that would apply to their products under the WTO's most-favoured-nation rules are not especially high. However, we rate them as somewhat vulnerable because exports to the U.S. accounted for more than 25% of the value of their shipments in 2016, a reality that makes them at risk of being used as bargaining chips by the U.S. administration. In this group are makers of paper products; chemicals; primary metals other than iron, steel and aluminum; machinery; computers and electronics; and furniture and related products. Table 1C below presents the added value incorporated in their exports to the U.S. as percentages of Canadian and provincial nominal GDPs.

**Table 1C - Value added dependant on exports to the U.S. of industries for which at least 25% of total sales are destined for the U.S. (% of nominal GDP, 2013)**

NAICS Code - Exporting industry	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
3222 - Converted paper products manufacturing	0.1%	0.0%	0.0%	0.0%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
325 - Chemical manufacturing exc. 3254	0.6%	0.1%	0.1%	0.1%	0.1%	0.4%	0.6%	0.4%	0.3%	1.3%	0.2%
331 - Primary metals ex. 3311, 3312, 3313 and 3315	0.3%	0.9%	0.0%	0.0%	0.2%	0.6%	0.3%	0.5%	0.1%	0.0%	0.1%
333- Machinery manufacturing	0.4%	0.0%	0.1%	0.1%	0.1%	0.4%	0.6%	0.8%	0.4%	0.2%	0.2%
334 - Computers and electronic products manufacturing	0.2%	0.0%	0.0%	0.1%	0.0%	0.3%	0.3%	0.0%	0.1%	0.1%	0.2%
337 - Furniture and related products manufacturing	0.1%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%
<b>Total</b>	<b>1.7%</b>	<b>1.1%</b>	<b>0.2%</b>	<b>0.4%</b>	<b>0.7%</b>	<b>2.0%</b>	<b>2.2%</b>	<b>1.9%</b>	<b>0.8%</b>	<b>1.6%</b>	<b>0.7%</b>

NBF Economics and Strategy (Calculations with data from Statistics Canada - table 381-0032)

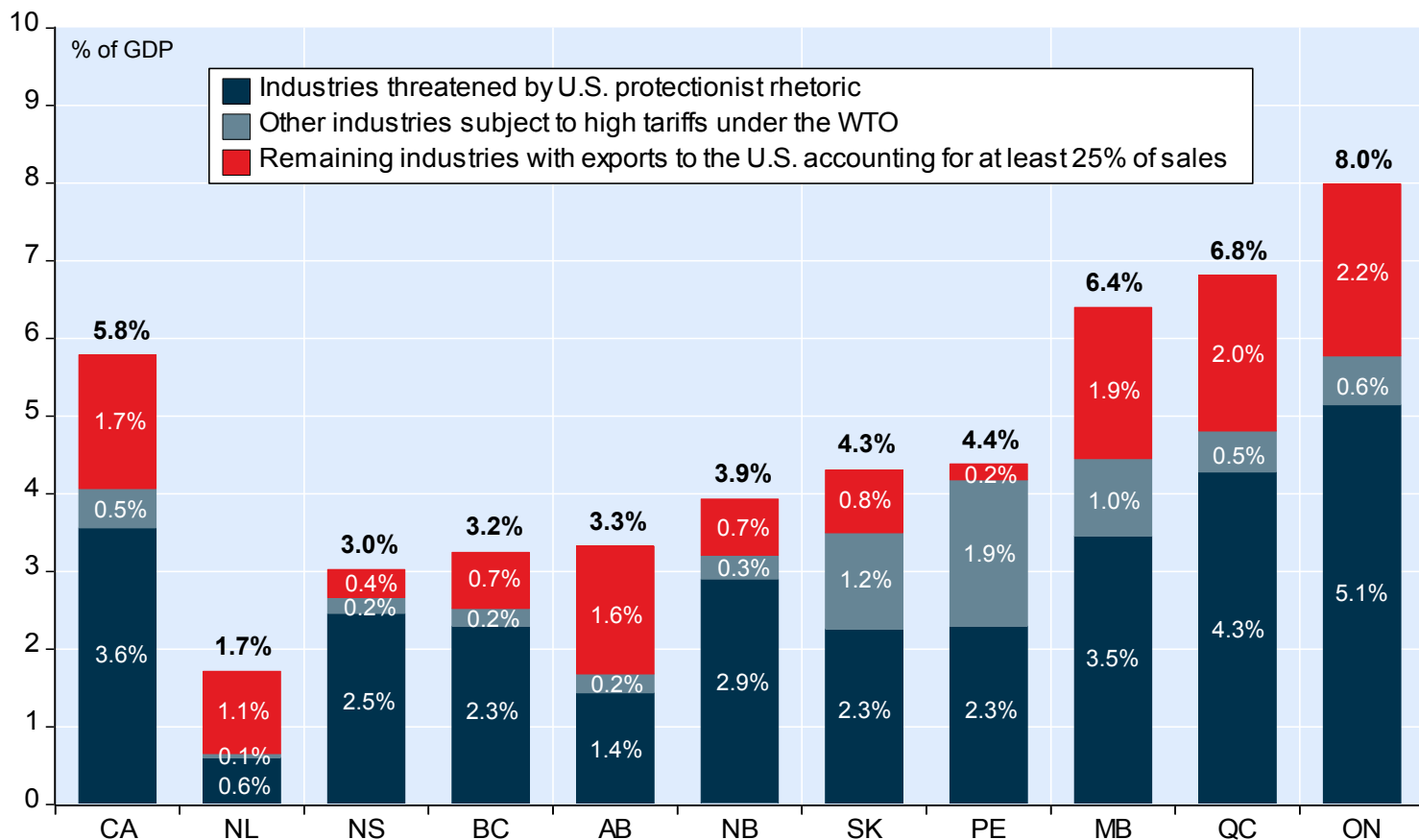
For these industries, Ontario is the province most exposed, directly or indirectly, to exports to the U.S., followed by Quebec, Manitoba and Alberta. The place of Ontario and Quebec in this ranking is hardly surprising given the concentration and diversity of manufacturing in these two provinces. Manitoba stands out for its exports to the U.S. of machinery, especially farm machinery. Alberta, meanwhile, is a major exporter of chemicals, notably resins, synthetic rubber and petrochemicals.

## Exposures of Canada and provinces: Summary of the three risk groups

Chart 1 below summarizes the overall exposure to U.S. protectionism of Canada and each province resulting from the three risk factors discussed above. In 2013, the latest year for which data are available, 5.8% of Canada's nominal GDP consisted of the added value incorporated in the exports to the U.S. of the industries likely to be affected by U.S. protectionism. Though this exposure is hardly negligible, it is still well below the exposure suggested by the value of all Canadian exports to the U.S. — close to 20% of nominal GDP.

## Chart 1: Potential impact of American protectionism on output

Share of Canadian GDP vulnerable to U.S. protectionism – direct and indirect effects (2013)



NBF Economy and Strategy (data via Statistics Canada, table 381-0032)

For a majority of provinces, most of the exposure is from the group of high-risk industries. The exceptions are Alberta, Newfoundland & Labrador and Prince Edward Island. The province most at risk is Ontario, with overall exposure amounting to 8.0% of its nominal GDP, followed by Quebec, 6.8%, and Manitoba, 6.4%. B.C.'s moderate exposure may seem surprising given its image as an economy in which softwood lumber exports to the U.S. loom large. But even back in 2013, the U.S. accounted for only 46% of the value of the province's goods exports. To be sure, B.C. is well ahead of all the other provinces in the diversity of its international markets.

It is important to understand that a 5.8% exposure does not mean that, in the worst case, Canada's nominal GDP would be slashed by 5.8% (a rather somber prospect). Instead, it means that, if the U.S. decided to impose protectionist measures on every single industries named in this paper (a highly unlikely scenario), a portion of that 5.8% would be at risk. Imagine, for instance, that broad-based protectionist measures would reduce the value added dependant on U.S. exports by 25% over three years. That would cut Canadian nominal GDP by approximately 0.5% per year over that period ( $5.8\% \times 25\% \div 3$ ), or roughly C\$10.5 billion.

### Exposure of employment

The Statistics Canada data also enable us to estimate, for Canada and each province, the percentage of jobs that depend on the exports to the U.S. of a given industry (regardless of the province from which the exports left the country). Table 2 below presents the results of this analysis.

**Table 2 - Employment in specific Canadian industries dependant on exports to the U.S.  
(% of total employment, 2013)**

NAICS code - Exporting industry	CA	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
<b>A - U.S. Protectionist rhetoric</b>											
111, 112 - Crop and animal production	0.3%	0.0%	0.6%	0.1%	0.3%	0.1%	0.2%	0.7%	1.0%	0.4%	0.3%
3115 - Dairy products manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3116 - Meat products manufacturing	0.1%	0.0%	0.1%	0.0%	0.0%	0.2%	0.1%	0.3%	0.2%	0.2%	0.0%
321 - Wood products manufacturing	0.3%	0.0%	0.0%	0.2%	0.9%	0.4%	0.1%	0.2%	0.2%	0.2%	0.9%
3221 - Pulp, paper and paperboard mills	0.2%	0.2%	0.1%	0.3%	0.9%	0.4%	0.2%	0.1%	0.0%	0.1%	0.2%
3254 - Pharmaceutical and medicine manufacturing	0.1%	0.0%	0.2%	0.1%	0.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%
326 - Plastics and rubber products manufacturing	0.3%	0.0%	0.0%	0.9%	0.2%	0.4%	0.4%	0.3%	0.0%	0.1%	0.1%
3311 - Iron, steel mills, ferro alloy manufacturing	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%
3312 - Steel products from purchased steel	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%
3313 - Alumina and aluminum products	0.1%	0.0%	0.0%	0.0%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%
3315 - Foundries	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
335 - Electrical equip., appliance and comp. manufacturing	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.1%
3361 - Motor vehicle manufacturing	0.9%	0.2%	0.2%	0.2%	0.3%	0.4%	1.8%	0.4%	0.2%	0.3%	0.3%
3362 - Motor vehicle body and trailer manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
3363 - Motor vehicle parts manufacturing	0.4%	0.0%	0.0%	0.0%	0.1%	0.1%	0.8%	0.1%	0.1%	0.1%	0.1%
3364 - Aerospace products and parts manufacturing	0.2%	0.0%	0.6%	0.3%	0.0%	0.5%	0.1%	0.5%	0.0%	0.0%	0.1%
3365 - Railroad rolling stock manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Sub-total</b>	<b>3.3%</b>	<b>0.6%</b>	<b>1.9%</b>	<b>2.3%</b>	<b>2.8%</b>	<b>3.3%</b>	<b>4.6%</b>	<b>2.9%</b>	<b>2.1%</b>	<b>1.5%</b>	<b>2.1%</b>
<b>B - High U.S. tariffs in the WTO framework</b>											
311 - Food man. excluding 3111, 3115, 3116 and 3117	0.4%	0.0%	1.8%	0.1%	0.3%	0.3%	0.5%	0.6%	0.7%	0.2%	0.2%
312 - Beverage and tobacco products manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
313 to 316 - Textile, clothing and leather	0.1%	0.0%	0.0%	0.2%	0.0%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%
<b>Sub-total</b>	<b>0.5%</b>	<b>0.1%</b>	<b>1.8%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.6%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.8%</b>	<b>0.2%</b>	<b>0.3%</b>
<b>C - High share of U.S. exports in total sales</b>											
3222 - Converted paper products manufacturing	0.1%	0.0%	0.0%	0.0%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
325 - Chemical manufacturing exc. 3254	0.5%	0.0%	0.1%	0.1%	0.2%	0.5%	0.6%	0.3%	0.2%	0.8%	0.2%
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333 - Machinery manufacturing	0.4%	0.0%	0.1%	0.1%	0.1%	0.4%	0.6%	0.7%	0.5%	0.2%	0.2%
334 - Computers and electronic products manufacturing	0.2%	0.0%	0.0%	0.1%	0.0%	0.3%	0.3%	0.0%	0.1%	0.1%	0.1%
337 - Furniture and related products manufacturing	0.2%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.0%	0.0%	0.1%
<b>Sub-total</b>	<b>1.6%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.7%</b>	<b>1.8%</b>	<b>2.1%</b>	<b>1.4%</b>	<b>0.8%</b>	<b>1.1%</b>	<b>0.7%</b>
<b>Total</b>	<b>5.3%</b>	<b>1.0%</b>	<b>3.9%</b>	<b>3.0%</b>	<b>3.9%</b>	<b>5.6%</b>	<b>7.3%</b>	<b>5.1%</b>	<b>3.7%</b>	<b>2.8%</b>	<b>3.1%</b>

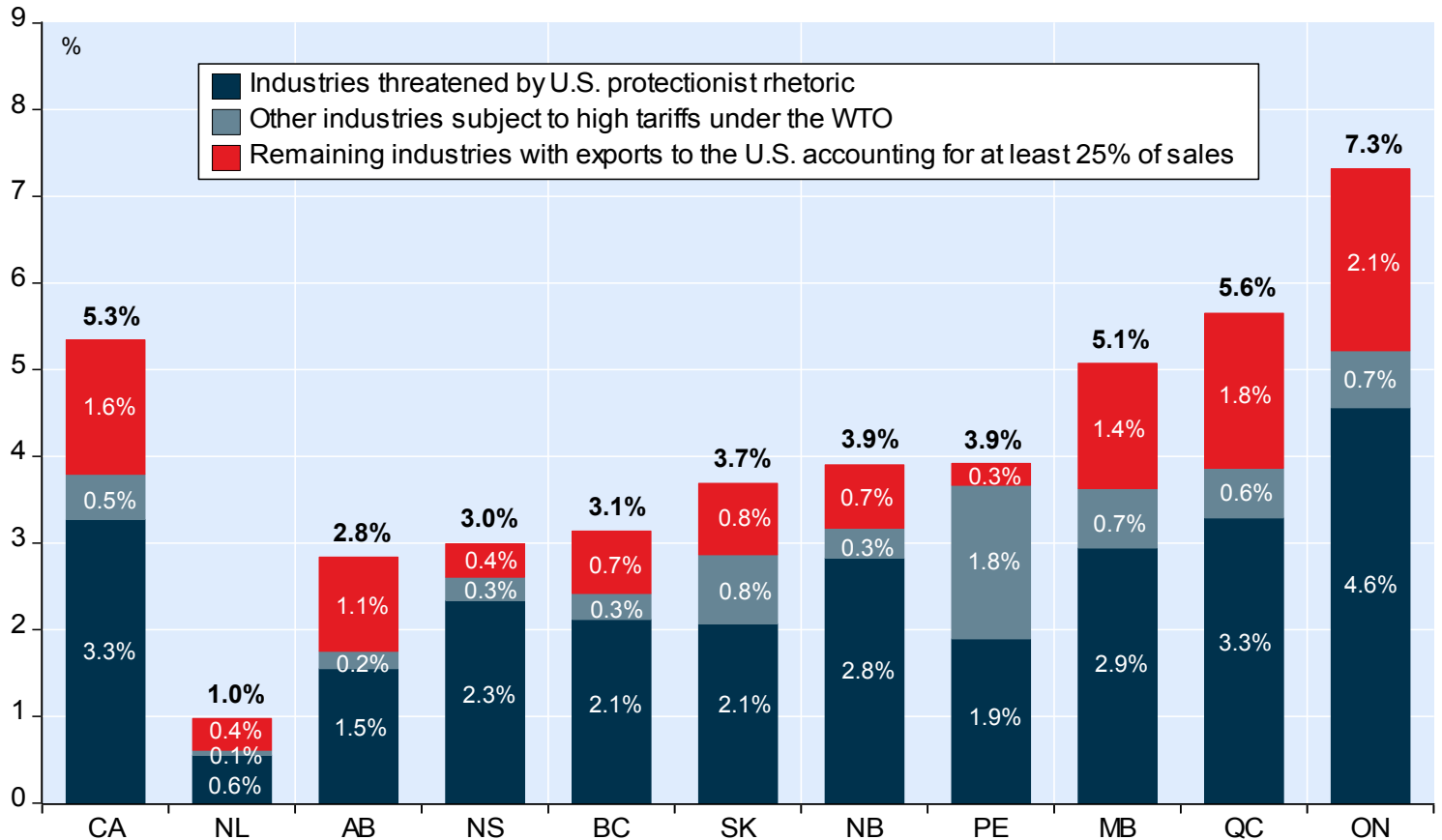
NBF Economics and Strategy (Calculations with data from Statistics Canada - Table 381-0032)

As one would expect, Table 2 does not lead to conclusions very different from those suggested by the tables of nominal-GDP exposure. Ontario remains the province most exposed, followed by Quebec and Manitoba. The least exposed provinces are Newfoundland & Labrador and Alberta.



## Chart 2: Potential impact of American protectionism on employment

Share of Canadian employment vulnerable to U.S. protectionism – direct and indirect effects (2013)



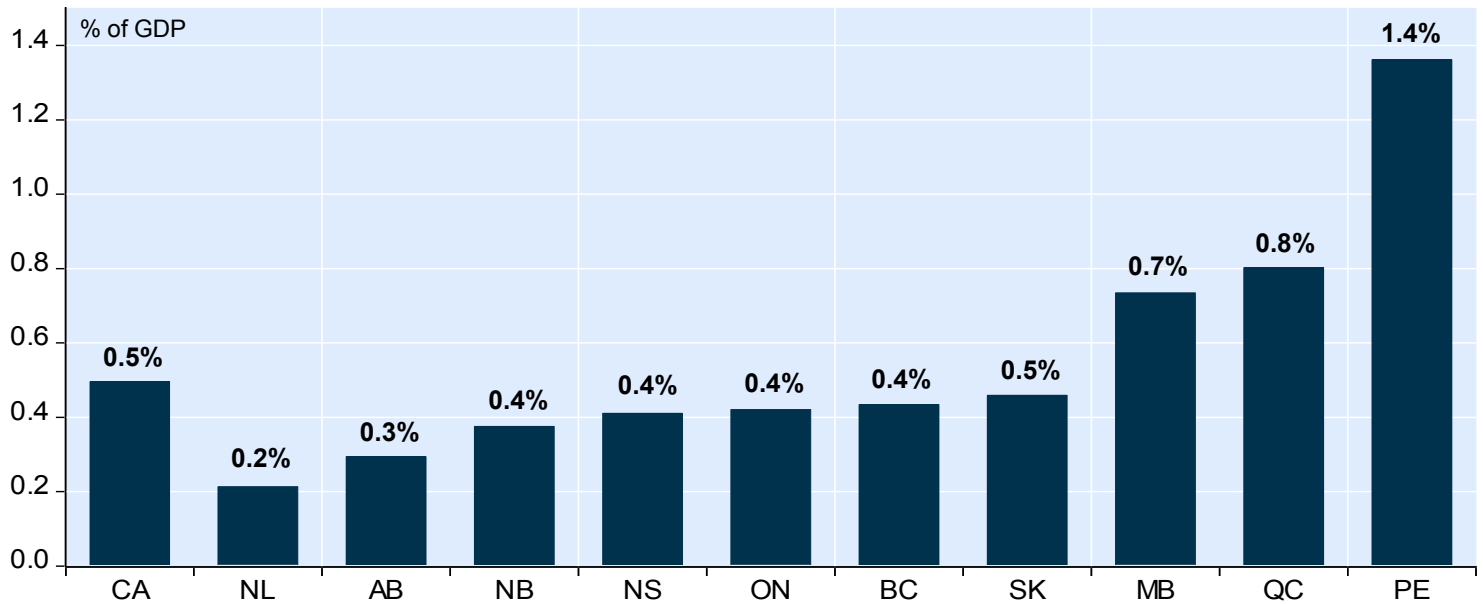
NBF Economy and Strategy (data via Statistics Canada, table 381-0032)

### Supply-managed agriculture: A special case

We earlier calculated the potential protectionist hit to exports of farm products to the United States. However, Canadian agriculture subject to supply management – dairy products, poultry, eggs – faces another kind of risk. Here the threat lies in the possible opening of the Canadian market to competition from the U.S. rather than in the restriction of exports to that country. To gauge the importance of this production in Canada as a whole and in each province, we report agricultural revenue from these products as a percentage of GDP. The results are shown in Chart 3 below.

## Chart 3: Vulnerability of sectors under supply management system

Farm cash receipts as a percentage of GDP, dairy products, poultry and eggs



	CA	NL	AB	NB	NS	ON	BC	SK	MB	QC	PE
Dairy products	0.3%	0.2%	0.2%	0.3%	0.3%	0.2%	0.2%	0.2%	0.4%	0.6%	1.3%
Hens and chicken	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.0%
Turkeys	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Eggs	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.2%	0.0%	0.1%
<b>Total</b>	<b>0.5%</b>	<b>0.2%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>0.5%</b>	<b>0.7%</b>	<b>0.8%</b>	<b>1.4%</b>

NBF Economy and Strategy (data via Statistics Canada, table 002-0001)

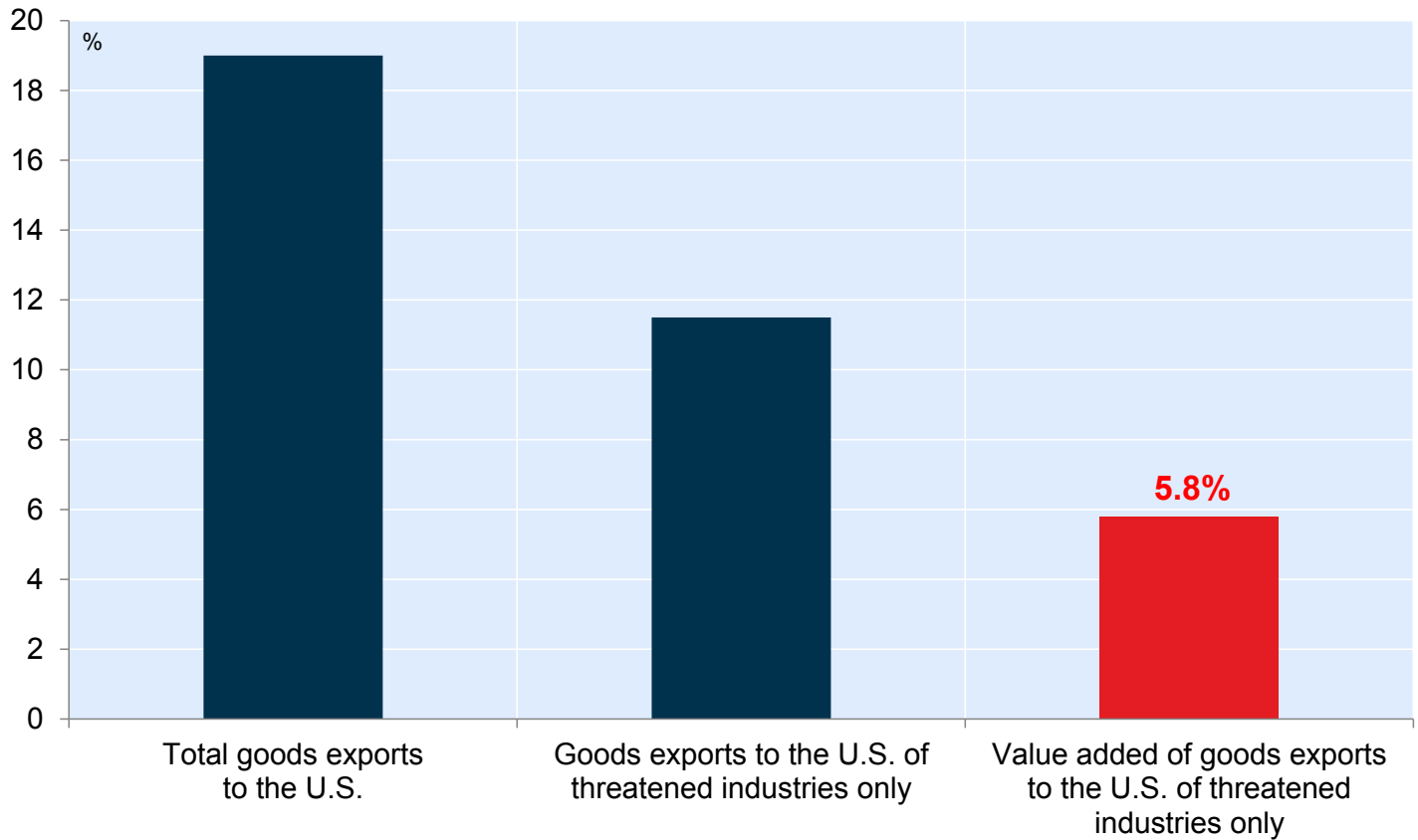
The province most exposed to major concessions on supply management is P.E.I., given the weight of dairy production in its economy, followed by Quebec and Manitoba.

## Conclusion

This report identifies the industries whose exports to the U.S. we see as most vulnerable to U.S. protectionism and calculates the weight of these exports in the Canadian economy as measured by value added to them in Canada. For the country as a whole, the exposure is 5.8%, hardly negligible but still much below the figures suggested by the value of all exports to the U.S. (roughly 20% of Canadian GDP) or the value of exports of threatened industries only (11.5%).

## Chart 4: Share of Canadian economy vulnerable to U.S. protectionist policies

Goods exports to the U.S. as a share of GDP



NBF Economics and Strategy (data via Statistics Canada, NBF calculations)

Ontario is the province most exposed to protectionist risks, with 8.0% of its nominal GDP (as measured by value added in Ontario by vulnerable industries) depending on exports to the United States. Quebec and Manitoba follow in order. At the other end of the spectrum, Newfoundland & Labrador, Nova Scotia, British Columbia and Alberta all showed exposure levels that were significantly below the Canadian average.

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