

## Canadian export outlook: explaining recent challenges

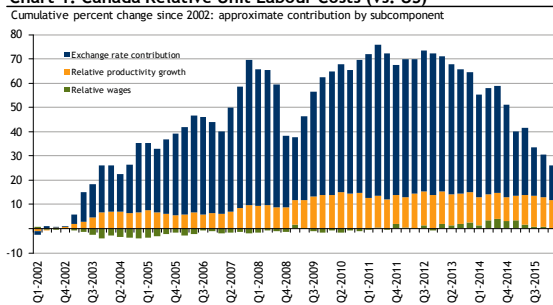
A sharp depreciation in the Canadian dollar and stronger U.S. demand have long been expected by the Bank of Canada and others (including ourselves) to boost demand for Canada's exports and provide an offset to the pullback in activity in the oil & gas sector. Exports have, on balance, continued to grow but the pace (3.4% in 2015, 3% excluding energy products) has been modest when considered against the backdrop of a sharp improvement in competitiveness relative to, by far Canada's most important trading partner, the U.S. (Chart 1). An encouraging broadly-based 7% (annualized rate) jump in Q1 2016 exports provided temporary hope that stronger growth was emerging but a sharp pullback in Q2 (with a 20% annualized decline in the quarter the largest since Q1 2009) has clearly tempered optimism that the underlying trend is accelerating in a significant way. Indeed our forecast assumes that even with a rebound over the next two quarters, export growth will average just 1.7% in 2016 and 2017, below the already-modest pace of growth in 2015.

The underperformance of Canadian exports relative to expectations is likely the result of a number of factors. First, the bilateral currency depreciation relative to the U.S. dollar has overstated the improvement in Canada's competitive position because part of the bilateral improvement has reflected broadly based U.S. dollar strength rather than purely Canadian dollar weakness. Second, notwithstanding some slowing early in 2016 that we expect will ultimately prove temporary, overall U.S. GDP growth has been relatively solid (+2.6% in 2015) but largely because of strength in household spending and the services sector which tends to have a lower Canadian import content compared to areas like business investment. Weak demand for U.S. exports has also likely lowered demand for Canadian-sourced intermediate production inputs. Last but not least, factors that have contributed to slower growth in trade flows globally have also likely been impacting Canada. Part of that global slowdown may be cyclical but there is also reason to think a significant portion is structural in nature with signs that much of a large boost to trade from the global integration of supply chains in recent decades may have run its course. The cyclical component of the slowing will ultimately be reversed but the portion due to global structural factors will likely persist going forward. We discuss each of these factors in more detail below.

### Bilateral versus broad-weighted exchange rates

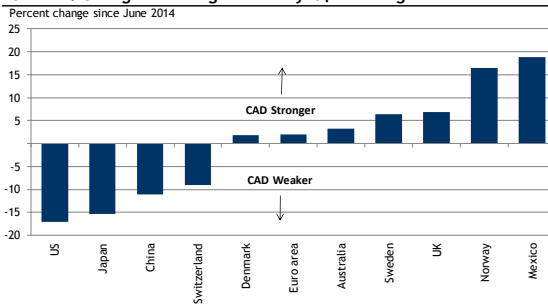
The depreciation of the Canadian dollar has sharply improved Canadian 'competitiveness' relative to U.S. producers; however, only part of the bilateral improvement has reflected Canadian dollar 'weakness' as the U.S. dollar has also strengthened on a broadly-based basis (up ~13% on a broad trade-weighted basis in 2015) due to relative outperformance of the economy compared to other advanced countries. The result is that, while Canadian competitiveness has clearly improved relative to U.S. producers, gains have been much smaller compared to other countries that are also competing for the U.S. import market. The Canadian dollar is, for example, about 20% *stronger* relative to the Mexican Peso compared to mid-2014 levels (Chart 2). Mexico is also an oil producing nation but the relative safety of Canadian government debt has likely contributed to greater currency weakness relative to Canada. In that context, it is perhaps less surprising that Canadian exporters have, on bal-

**Chart 1: Canada Relative Unit Labour Costs (vs. US)**



Source: Statistics Canada, Bureau of Labor Statistics, RBC Economics Research

**Chart 2: Change in Foreign currency/C\$ exchange rate**

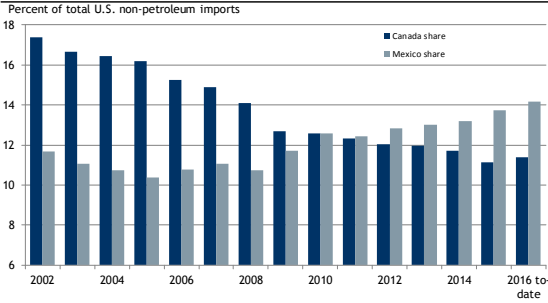


Source: Bank of Canada, RBC Economics Research

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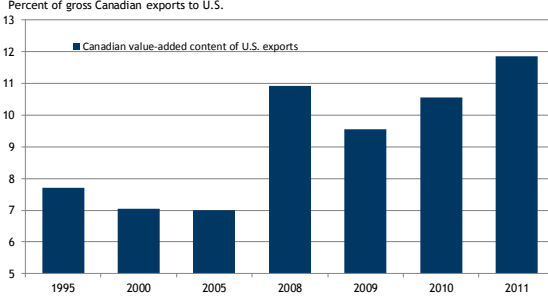
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**Chart 3: Share of U.S. Imports ex-Petroleum Products**



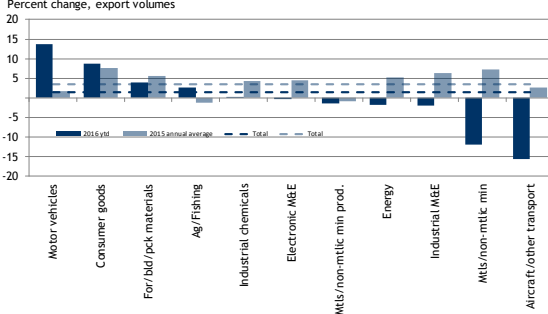
Source: U.S. Census Bureau, Haver, RBC Economics Research

**Chart 4: Canada value added content of U.S. Exports**



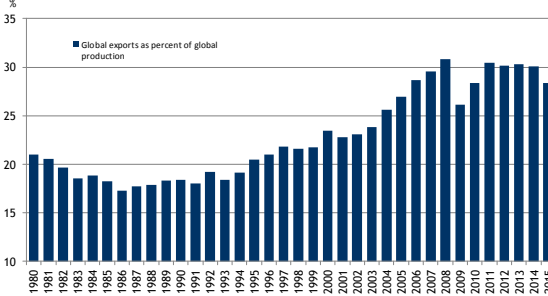
Source: OECD/TIVA database, RBC Economics Research

**Chart 5: Canada Export Growth**



Source: Statistics Canada, RBC Economics Research

**Chart 6: World Exports Share of World GDP**



Source: OECD, IMF, RBC Economics Research

ance, not picked up significant U.S. import market share. Canada's share of U.S. imports outside of the petroleum sector actually declined slightly in 2015 and remains below 2014 levels in 2016 year-to-date (Chart 3). The level is well-below the ~17.5% share in 2002 before rising oil prices and a stronger currency began to weigh on Canadian export competitiveness. Mexico, in contrast, has continued to increase its share of the U.S. import market. This trend has been particularly pronounced in the auto sector.

**Composition of U.S. GDP growth**

A related issue is that U.S. dollar strength has resulted in a composition of U.S. growth that is relatively unfavourable for Canadian exports. U.S. industrial production (manufacturing, mining, and utilities output) has been weak, rising just 0.3% in 2015. The strong U.S. dollar has weighed on external demand resulting in weak exports and also has likely been a factor, in addition to a pull-back in the oil & gas sector, behind slow growth in U.S. business investment. U.S. exports in particular are often overlooked in terms of implications for Canadian exports with the focus more on U.S. domestic demand; however, to do so is to ignore indications that increased international integration of value-added production chains has resulted in an increasing share of Canadian exports that are used as intermediate inputs in the production of U.S. exports. Although about three-quarters of Canada's exports are bound initially for the U.S., data from the OECD suggests that, as of 2011 (the latest year available), almost 12% of those were ultimately used as value-added intermediate inputs to produce U.S. exports, up sharply from 7% in 2005 (Chart 4). Less demand for U.S. exports, then, also implies less demand for Canadian-sourced inputs.

The composition of Canadian export growth conforms to this description of U.S. growth (Chart 5). Exports of consumer goods have been relatively strong. Disappointment has come largely from slower than expected growth in machinery and equipment exports which, historically, are more closely correlated with U.S. business spending than overall GDP growth.

**Longer-term challenges: slower structural trade flows**

The factors discussed above are largely specific to Canada; however, a slowdown in growth in global trade flows is likely also at least partly to blame for some of the recent Canadian export performance. Indeed, Canada has not been alone in experiencing slower-than-'normal' trade growth. Global exports share of global GDP never quite recovered to pre-recession levels and has been trending somewhat lower since 2010 (Chart 6). The performance post-2008/09 recession marks a sharp departure from earlier trends through the 1990s and up to the beginning of the global financial crisis when trade was easily outpacing GDP growth. When put in this global context, Canada has not been losing significant global or advanced economy export market share (Chart 7). These trends are in contrast to a shrinking share in the pre-recession period when a stronger currency was weighing on relative export competitiveness.

Bank of Canada researchers recently argued (see [here](#)) that, while part of the slowing in global trade growth could be tied to cyclical factors originating from the 2008/09 global recession, part also appears to be more structural in nature. They argue that the earlier expansion of global trade flows was boosted by the integration of global production value chains supported by a number of factors, including trade liberalization, falling transportation costs, and the integration of major emerging markets. At least part of the slowing in growth in global trade flows may be suggesting that the earlier boost to trade has begun to run its course. In effect, trade growth is perhaps not so much unusually slow in the current environment as much as it was unusually



strong in earlier periods.

As one hypothetical example to think about how the integration of production chains can boost aggregate trade flows, consider two similar companies independently producing a similar product in two different countries without importing or exporting. Now suppose the companies decide to integrate their production processes with one producing strictly intermediate inputs and shipping to the other company who assembles the final product and exports a portion back across the border for consumption. There need not be any impact on the aggregate level of production across the two firms (although presumably there would also be a net productivity gain associated with the relationship); however, trade flows associated with that production have clearly increased substantially. Importantly, the increase in the level of trade flows relative to production (and any increase in the level of productivity) is ultimately permanent, but the boost to *growth* in trade is limited to the period when the production chains are being integrated.

In terms of real-world evidence that global value chain integration was a factor boosting trade flows earlier, data from the OECD show that about two-thirds of the average 7.8% (per year) increase in global exports between 1995 and 2011 was accounted for by increased trade in intermediate products. According to the same data, almost three-quarters of the average 6% increase (in \$US) in Canadian nominal exports over the period was accounted for by higher exports of intermediate production goods (chart 8).

### Importance of the ‘structural’ versus ‘cyclical’ distinction

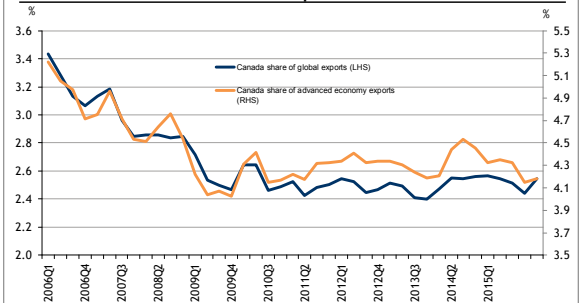
The distinction between whether slower growth in global trade flows is cyclical or structural is important when considering the potential impact on a relatively small open economy like Canada. If the slowing in global trade growth proves to be due to shorter-run cyclical factors, it will eventually be reversed providing a short-run boost to global exports that should lift Canadian trade as well. Alternatively, if, as appears likely, a significant portion of the slowing is structural in nature, then expectations for the pace of export growth that is achievable at any given currency and foreign demand backdrop will likely have to be adjusted lower.

To be sure, if driven by a slowdown in the pace of global production value-chain integration, then (as described in the hypothetical example above) the direct impact of slowing trade flows on overall domestic production (i.e. GDP) growth could well be limited with offset to slower export growth coming from slower import growth. Research suggests, however, that value-chain integration has also provided a boost to productivity growth. A recent paper by Baldwin and Yan ([link here](#)) finds that internationally integrated Canadian manufacturing firms tend to be larger, more productive, and pay higher wages than other-wise similar non-integrated firms. A slowing in the pace of integration across countries could, then, at the margin weigh on productivity growth, which will be increasingly relied upon going forward to offset another significant long-run structural change in the economic growth backdrop: the aging of the baby boom generation and resulting slowing in labour supply growth.

### A new model of Canadian exports

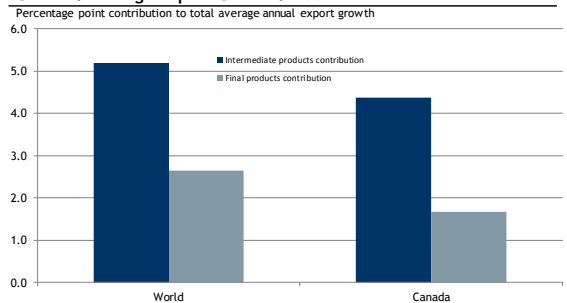
To test the significance of each of the above factors, we estimated a simple econometric model of Canadian exports. We used an error-correction framework to explain Canadian exports as a function of function of relative unit-labour costs compared to the U.S. (with the bulk of the volatility in that measure explained by \$US/\$C exchange rate fluctuations), US industrial production, the trade-weighted U.S. dollar index excluding Canada, and

Chart 7: Canada Share of World Exports



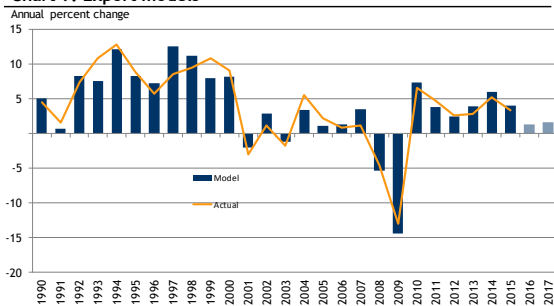
Source: WTO, RBC Economics Research

Chart 8: Average Export Growth: 1995 to 2011



Source: OECD, RBC Economics Research

Chart 9: Export models



growth in global trade volumes as estimated by the OECD and WTO. The inclusion of the U.S. dollar exchange rate ex-Canada is meant to account for periods where U.S. dollar strength, rather than Canadian dollar ‘weakness’, is contributing to a deterioration in the bilateral \$US/C\$ exchange rate. We allow a break in that relationship in 2005, after which data suggests that the share of Canadian exports to the U.S. ultimately repackaged into U.S. exports increased sharply. US industrial production provides a better indicator of growth in the U.S. economy that is more dependent on Canadian exports, and growth in global trade volumes proxies for the portion of historical Canadian trade growth resulting from global integration of global value chains rather than factors specific to Canada. Canada accounts for only ~2.5% of global exports and so has a negligible impact on global growth trends. We estimated our model on aggregate exports; however, results using ex-energy exports were very similar.

All variables are statistically significant (aside from the broad-weighted U.S. dollar index pre-2005) and, although Canadian trade data are notoriously volatile, the model does a good job of explaining historical export growth as shown in Chart 9. Importantly, the model explains much of the sluggish growth in 2015, suggesting that slower-than-expected trade growth in that year may have been more fundamental in nature than previously thought. Projecting forward using our latest forecasts for U.S. growth (which we expect will continue to be weighted towards services output and household spending) and exchange rates, and assuming a continuation of modest global trade growth points to continued modest export growth, on balance, at close to the average 1.7% pace of growth over 2016 and 2017 we assumed in our most recent forecast.

### Implications

To the extent slower growth in trade flows is structural in nature, expectations for what constitutes ‘strong’ or ‘weak’ growth in aggregate exports will need to be adjusted lower. That is not to say, however, that there is nothing that can be done to moderate the slowing. Policies making it easier for Canadian small and medium enterprises (SMEs) to access international markets could help given (as we noted [here](#)) the relatively small share of SME exports in overall exports in Canada relative to other advanced economies (Chart 11). Expansion of free trade agreements could also help spur greater trade integration globally. The *Comprehensive Economic and Trade Agreement* (CETA) and the *Trans-Pacific Partnership* (TPP) have the potential to double the share of the world’s economy that Canada’s exporters access through free trade agreements although the UK vote to leave the European Union has increased uncertainty about whether the former will be ultimately implemented. Another opportunity is trade in services. Services have been steadily increasing as a share of advanced economy production. A recent IRPP [study](#) noted the expansion of global value chains has also spurred greater services production related to activities necessary to link geographically dispersed activity. Significant impediments to trade in services across international borders remain suggesting the potential for stronger trade if restrictions were relaxed. The CETA, for example, includes some measures specifically designed to boost trade in services (see [here](#) for more information).

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