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Sticker Shock: The Causes of the Canada-US Price Differential

Canadian consumers naturally wonder how the same goods can exhibit such large price gaps across countries despite small distances and a relatively open border. The author examines why and what can be done about it.

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The Study In Brief

Whether they are buying dinnerware, diapers, or dairy products, Canadian consumers are becoming frustrated by the higher prices of similar goods in Canadian stores relative to US stores. The federal government has promised to introduce legislation to address alleged price discrimination in Canada relative to the US. But before the government acts, it should understand why Canadian prices are often higher and how much its own policies are the cause of relatively higher prices for Canadian consumers.

The Canada-US price gaps at the retail and wholesale levels seem to closely track the Canada-US exchange rate. Using detailed data from 2004 through 2007 from a major grocery retailer operating in Canada and the US, I find that the Canada-US gaps in wholesale prices play a much greater role than gaps in retail margins in generating the price gaps consumers observe.

There is less competition among manufacturers in Canada, as reflected in the fact that the average product category carried by the retailer has one-third fewer major brands in Canada than in the US. While more competition is associated with smaller increases in price gaps, there is little evidence to conclusively demonstrate what fraction of the wholesale price gap is due to a legitimately higher cost of operating in Canada.

What can Canadian governments, especially the federal government, do to reduce the price gap between Canada and the US?

The easiest thing Canadian governments can do if they want to reduce the Canada-US wholesale price gap is eliminate existing tariffs and supply-management policies that are responsible for the largest price gaps. The government should also consider building on recent actions that allow consumers to pay US prices for goods by increasing duty-free exemptions for travellers and postal shipments. As well, it should consider the role of certain taxes and regulations that could be raising the cost of doing business in Canada for manufacturers, distributors and retailers.

If the federal government is serious about reducing prices for Canadians, it might want to first look at some of its own policies before tasking the Competition Bureau with investigating companies charging higher prices in Canada relative to the US.

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Over the past decade, Canadian consumers have become increasingly concerned about the difference in prices for the same goods in Canada and the United States.

In 2004, if a resident of British Columbia went to a Washington store, he would pay similar Canadian dollar prices for the same package of egg noodles sold in Canadian stores by the same retail chain. By 2007, that same British Columbian going to Washington would find that the egg noodles had become 10 percent more expensive in Canada than in the US.

There are more examples of growing price disparities. In 2004, a British Columbian shopping in Washington would have paid the same amount in Canadian dollars for the same brands of seafood snacks, diapers or chocolate bars in either the US or Canada. But in 2007, those same products would have cost him 3 percent, 16 percent and 25 percent more, respectively, in Canadian stores than in US stores.[1] Since the Canadian dollar appreciated during those years, boosting Canadians' purchasing power in US stores, many have wondered why the same products became relatively more expensive in Canada.

It is not only groceries where consumers have noticed relatively higher prices in Canadian stores compared to US stores. According to Organisation for Economic Co-operation and Development (OECD) statistics measuring equivalent Purchasing Power Parity (PPP), the Canadian dollar price of goods Canadians buy on a regular basis was 22 percent lower than in the US in 2002 (9 percent lower for food). Canadian prices were generally lower than US prices from the mid-1990s to mid-2000s. But, by 2012, the cost for a similar set of goods was 27 percent higher in Canadian stores (57 percent higher for food). While a rising Canadian dollar was clearly the catalyst for increased purchasing power by Canadians in the US, consumers naturally wonder how the same goods can exhibit such large price gaps across countries despite small distances and a relatively open border.

Policymakers have taken note. The 2013 Senate report *The Canada-USA Price Gap* considers a wide range of underlying causes, including tariffs, market size, the cost of doing business, retail competition and country-specific price discrimination (called "country-pricing") by manufacturers. Although it could not pinpoint a specific cause for price differentials, the Senate report recommended several steps to address the issue, including a review of tariffs. The 2014 Federal Budget goes a step further and proposes extending the power of the Competition Bureau to oversee conduct relating to country-specific pricing, which occurs when manufacturers charge higher prices in Canada that are not reflective of legitimately higher costs.

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1 The retailer data used here are available for academic research only under an agreement managed by the SIEPR-Giannini data center (http://are.berkeley.edu/SGDC/). For documentation of the data set, see Gopinath et al. (2011) and Burstein and Jaimovich (2012). Stata programs required to replicate the results are available from the C.D. Howe Institute on request.

In this *Commentary*, I focus on two questions related to better understanding the retail price gap: How much responsibility should we assign to retailers versus manufacturers for the Canada-US price gaps perceived by consumers? And how much responsibility should we assign to government regulation (such as tariffs and supply management) and country-pricing by manufacturers? I draw on my own research using detailed product-level data for food and household non-durables from a retailer operating in both Canada and the US between 2004 and 2007, but also touch on other academic research and official data covering a wider range of products.[2]

The evidence indicates that Canada-US gaps in wholesale prices play a much greater role than gaps in retail margins in generating large retail price gaps. Rising wholesale price gaps over the 2004-2007 period are positively associated with Canadian government regulations (high tariffs and supply management) and negatively associated with competition in Canada. There is less competition among manufacturers in Canada, as reflected in the fact that the average product category carried by the retailer studied here has one-third fewer major brands than in the US. One consequence is that Canadian consumers enjoy less product variety at the average store in Canada (10,000 products) versus the US (14,000 products).

How to Lower the Cost of Canadian Goods

In its 2014 budget, the federal government has made consumer-focused measures a priority, including the idea that consumers "should not be charged more in Canada for identical goods that sell for less in the United States, unless that price difference reflects legitimate higher costs" (Federal Budget 2014, p. 175). But what can it do to reach that goal? First, it can reduce costs for consumer goods by lowering or removing tariffs and by relaxing the supply-management restrictions on products such as cheese, chicken, eggs, milk and yogurt. Second, it can raise the maximum value of goods that Canadians can bring into the country without paying any duty.

These steps would add competitive pressure to reduce Canada-US price gaps. The federal government can also look at other costs of doing business that apply only in Canada and that do not burden US businesses, such as labelling requirements related to language and other regulations.

Less obvious is what the federal government can direct the Competition Bureau to do in order to reduce costs for retailers and consumers. In general, more competition among manufacturers seems to result in relatively smaller price markups in the US relative to Canada. However, it is not obvious how the government can increase the extent of competition in sectors – aside from those that are supply managed – that already have relatively free entry. Even more problematic would be for the Competition Bureau to investigate and pursue enforcement action against firms that charge different prices in Canada and the US. While there is some evidence that firms make higher profits in Canada relative to the US when the Canadian dollar appreciates (and lower profits when it depreciates), the higher costs of doing business in Canada due to government policies, the lower density of the Canadian market and other legitimate cost factors might explain a large share of the Canada-US price gaps.

2 In this *Commentary*, I focus on the determinants of Canada-US price differences and leave the discussion of legislative and practical issues around enforcement to others, such as the C.D. Howe Institute Competition Policy Council (forthcoming, 2014).

Retailers vs. Manufacturers

The US-Canada retail price gap for a product consists of two elements: the gap in wholesale prices paid by the retailer and the gap in retail margins (defined as the retail selling price divided by the wholesale buying price). This difference is difficult to observe for large firms that both manufacture and retail their own products, such as IKEA and H&M. For these integrated companies, within-country price differences are often tiny and stable, while cross-country price differences are large and move closely with nominal exchange rates (Cavallo, Neiman and Rigobon 2013). Since there is no observable "price" for a within-firm transaction, it is difficult to separate the role of local retail factors from manufacturing and distribution factors.

In cases where the retailer and manufacturer are not the same firm, retail prices often vary across locations due to differences in local competition, costs and demand conditions, regardless of a border. This can happen even if the retailer pays the same wholesale price. For example, among convenience stores or grocery stores in the same city, retail price gaps as large as 20 percent to 30 percent for an identical product are not unusual, with up to half this difference explained by cost factors such as land rent and store amenities rather than competition and consumer demand (Kaplan and Menzio 2013). Failure to control for these factors can create the appearance of within-Canada retail price gaps as large as cross-border price gaps (Broda and Weinstein 2008), but these gaps tend to be stable over time and Canadians are mainly concerned with price gaps for similar goods sold by similar retailers.

A Closer Look at Retail Price Gaps

In recent work, I and other authors have used data from a single retail chain operating in both countries to examine the contribution of retail margins and wholesale prices to retail price differences across countries over time.[3] Retail margins are not the same as retail profits, as retail margins must cover all of the retailer's costs (e.g., land, labour, energy, distribution) beyond the product's wholesale price. While higher Canadian retail margins may simply reflect higher costs of operating a retail chain in Canada, observing wholesale prices still allows us to quantify the importance of factors outside of the retailer's control in generating retail price gaps.

For example, I have examined the retail and wholesale price gaps for about 600 identical goods sold in 25 stores in British Columbia and 39 stores in Washington state between 2004 and 2007 (Table 1).[4] The products in the sample span diverse categories, ranging from dish detergent, bar

3 The data record all weekly regular, sale and wholesale prices for items sold in 250 US and 75 Canadian stores between January 2004 and June 2007, comprising more than 90,000 distinct barcodes in 200 categories.

4 While these goods are not representative of the 10,000-plus goods sold in the average store, the sample is much larger than the one presented by the Retail Council of Canada in the Senate report (15 products reported on Page 9, Table 1) or collected by Porter (2009) (about 50 products) and compares favourably in size, if not scope, to the 900 goods used by Statistics Canada to construct the Canada-US Purchasing Power Parity (PPP) benchmark in 2008 (Gallatly and Yan 2011). I omit products from the alcohol and tobacco categories as their prices are largely determined by taxes or government entities. I also omit books and magazines, as retailers may have limited control over pricing and the issues involved are covered in detail in the Senate Report and in Boivin et al. (2012). Results are similar when using the entire sample of 250 US and 75 Canadian stores in the data that cover a wider geographic area.

soap and batteries to pet food, tea and olive oil.[5] Positive values indicate higher prices in Canada and negative values – if there were any – would indicate the opposite. The first two rows report the regular retail and wholesale prices, which exclude all taxes. The next two rows report the actual sales or promotional prices, which include all temporary discounts, coupons and rebates, again not including taxes.[6]

Canada-US wholesale price gaps were generally larger than the retail price gaps for these 600 products, and both gaps widened between 2004 and 2007. The listed regular retail price gap was 2 percent in 2004 and rose to 12 percent in 2007. The listed wholesale gap was 12 percent in 2004 and 20 percent in 2007. In every period, the retailer appeared to absorb some of the higher wholesale prices in Canada by accepting lower retail margins. Between 2004 and 2007, retail price gaps widened somewhat more than wholesale price gaps but the rise in wholesale price gaps accounted for about three-quarters of the increase in retail prices over this period.

The Canada-US price gaps at the retail and wholesale level seem to closely track the Canada-US exchange rate. This effect looks quite symmetric over the entire sample period of 2004 through 2007 (Figure 1). During periods when the Canadian dollar depreciated (such as late 2004/early 2005 or late 2006), the Canadian dollar price of goods fell in Canada relative to the US. One common interpretation for this pattern is that local-currency prices are sticky in that they change only infrequently or that they do not fall (Canada 2013). For example, if the local currency prices never changed in either country this is exactly the pattern we would expect to see.

However, evidence on product-level price-setting from a variety of sources indicates that the prices of most products change at least once a year (Klenow and Malin 2010); the frequency of price changes for the typical good sold by the retailer studied here is even higher, about once every 32 weeks using list prices and once every 6.5 weeks using sales prices (Hong and Li 2012). About 40 percent of these price changes are downward, which allows for the symmetric response of price gaps to exchange rate appreciation and depreciation. Thus, while sticky prices can play an important role at short horizons and for some goods like services and magazines, they are unlikely to explain the persistence of high Canada-US price gaps over many periods after a large and persistent Canadian dollar appreciation such as the one that began in the early 2000s.

Despite having very similar physical characteristics, goods sold in Canada and the US may have slight differences in packaging or ingredients, resulting in a different barcode. This makes price comparisons difficult and will be an important issue if the federal government decides to regulate country-pricing. It also makes the set of products that can be perfectly matched across countries potentially less representative of the overall consumer basket. Many of the 600 products

5 I construct a comparative price level by: (i) averaging the price of each product across stores and months in the first half of each year from 2004 to 2007; (ii) calculating the price gap (in a common currency) for each product; and (iii) aggregating across products using expenditure shares (similar to the construction of PPP indexes). I convert the currencies using weekly exchange rates first (corresponding to the weekly retail data) and then take the average across all stores and weeks for the first six months of each year. I use a Tornqvist index, which is effectively a weighted average of product-level price gaps. The weight for each product is simply the average of its within-country expenditure share for the two countries.

6 Note that in most cases, temporary sales, coupons and rebates received by consumers are funded by special promotional accounts funded by manufacturers set on an annual basis (Anderson, Nakamura, Simester and Steinsson 2013). During this period, the state of Washington had a 6.5 percent sales tax with additional local sales taxes in some areas, while BC had a 6 percent to 7 percent GST and 7 to 7.5 percent PST, with many exempt items in both jurisdictions.

Table 1: Canada-US Wholesale and Retail Price Gap

	2004	2005	2006	2007
	Listed Regular Price (% Canadian Price Gap)			
Retail	2	8	14	12
Wholesale	12	20	25	20
	Promotional Price (% Canadian Price Gap)			
Retail	2	13	18	17
Wholesale	9	15	21	20
Canada to US exchange rate	.77	.83	.88	.93

Note: Prices exclude taxes.
Source: Author's calculations from retailer data based on a Tornqvist index using revenue weights and country average prices for the first half of each year across 39 Washington and 24 BC stores.

in my sample are imported from overseas or manufactured in the United States, while a large number of food products purchased in Canada are manufactured domestically. However, retail margins for individual product categories (e.g., cold cereal, hot cereal, luncheon meat, deli meat) or across all products (allowing for some categories to be loss leaders with negative or zero retail margins) moved very little between 2004 and 2007 in either country, rising only slightly in Canada. The 600 goods included in the Table 1 sample thus appear to be fairly typical in reflecting cross-border wholesale price gaps and different retail margins, with a dominant role for wholesale price gaps.[7]

Government Regulation and Market Competition

Just as cross-border differences in retail margins are not evidence of monopolistic excess profits, because retail costs may differ across locations, differences in wholesale prices are also not evidence of excess manufacturers' profits if tariffs and local distribution costs are higher in Canada. In the extreme case when tariffs and distribution costs are high enough to deter international trade, production will occur separately in each country. This amplifies the local cost component of wholesale prices that will rise when the Canadian dollar appreciates. While domestic production plays a small role for many consumer goods consumed by Canadians, it is a fairly common factor for food and other non-durable goods,[8] particularly in supply-managed industries that have high tariffs.

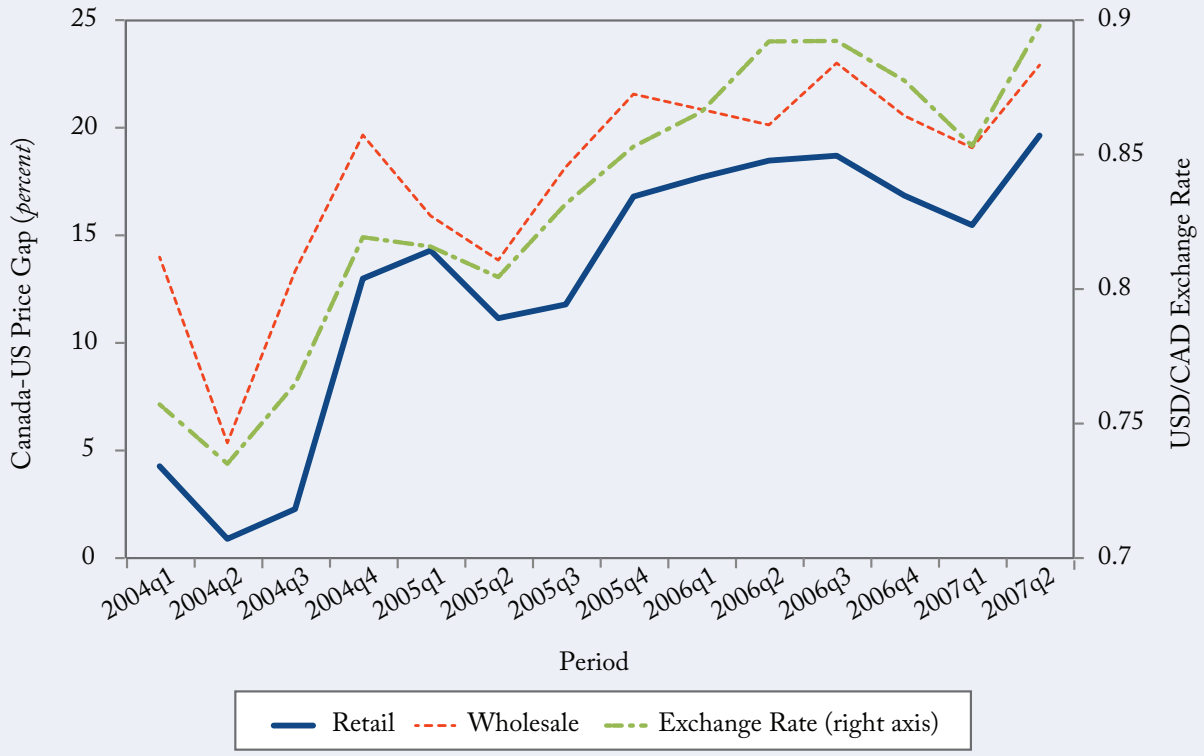
The Wide Variation in Canada-US Price Gaps

The Purchasing Power Parity (PPP) price gaps

7 Results are available from the author by request. See also Table 4 of Gopinath et al. (2011).

8 For the types of products sold by the retailer, 8 percent of precisely matched goods (identical UPC) and 32 percent of broadly matched goods (common brand name) sold in Canada are produced domestically (Burstein and Jaimovich 2013) and these make up even higher shares of revenue (16 percent and 67 percent, respectively).

Figure 1: Canada-US Retail and Wholesale Price Gaps and Exchange Rates, 2004-2007



Source: Author's calculations from retailer data and Canada/US exchange rates from FRED database.

reported by the OECD for 2005, 2008 and 2011, disaggregated by broad categories, highlight the variance in price gaps (Table 2).[9] The retail price gaps for the products in my sample in 2005 (8 percent to 13 percent) lie between the OECD price gaps for actual individual consumption (0 percent) and those for food and non-alcoholic beverages, which tend to be even higher (22 percent). The OECD data show that price gaps have only grown since 2007. Food products in supply-managed industries (such as milk, cheese and eggs and some types of meat) tend to feature the highest Canada-US price gaps and the greatest increase in Canada-US price gaps between 2005 and 2011.

Food items that behave more like commodities, like fish and fresh produce, feature the lowest average price gaps and rates of price increase. Products in industries with large multinational

9 Note that these data cover a wider range of retailers and regions in each country and include all taxes. The data are based in part on prices collected by Statistics Canada and are available through the OECD (http://www.oecd.org/std/prices-ppp/purchasingpowerparitiespppsdata.htm). Detailed category data are available only for the benchmark years 2005, 2008 and 2011.

Table 2: Canada-US Price Gaps, by Goods Category

	2005	2008	2011
	Consumer Price Gap (%)		
Actual Individual Consumption	0	17	28
Food and non-alcoholic beverages	23	33	57
Meat	11	47	76
Milk, cheese and eggs	35	29	77
Fish	20	-6	16
Fruit, vegetables, potatoes	9	7	29
Bread and cereals	16	32	63
Non-alcoholic beverages	25	55	46
Other food	44	41	57

Source: Author's calculations from PPP statistics available at http://stats.oecd.org.

brands (bread and cereals, non-alcoholic beverages) tend to be in the middle range, both in terms of price gaps and rates of price increase. Under the plausible assumption that retailing and distribution costs in Canada are fairly similar across these categories, this pattern of higher prices in protected and more brand differentiated industries is consistent with an important role for tariffs, supply management and country-pricing by producers of differentiated/branded goods in generating price gaps.

Returning to the detailed data from my study's cross-border etailer, although the price of the overall basket of goods is higher in Canada than in the US, 55 percent of goods had lower retail prices in Canada relative to the US in 2004 and 30 percent of goods had lower wholesale prices in Canada relative to the US in 2004. In 2007, 27 percent of goods had lower retail prices in Canada relative to the US, and 17 percent of goods had lower wholesale prices in Canada relative to the US.[10]

The diversity of Canada-US price gaps at the product level is consistent with the diversity across food categories expressed in Table 2 and suggests that the explanation for price gaps is more likely to lie in sector and good-specific factors like tariffs, regulations, and the degree of competition rather than in general features of the business environment like distribution or labour costs. This diversity of wholesale prices also suggests that the retailer's divisions in either country are not able to take advantage of lower wholesale prices often prevailing across the border.

10 Categories (and individual products) that tend to feature lower wholesale and retail prices in Canada throughout the sample period include Asian foods and pet food. Categories that tend to feature higher prices in Canada include health/sports foods, air fresheners, batteries and Jewish specialty food.

The reason why Canadian retailers are not able to arbitrage lower US wholesale prices is not entirely clear and likely varies by industry. One possible explanation is corporate agreements that specifically prohibit retailers from purchasing goods in another country and then importing them (a practice called parallel importing), forcing them to buy from local affiliates and distributors.[11] Sometimes restrictions on parallel importing arise naturally due to government regulations at the country-level rather than deliberate actions by corporations, such as in the auto sector (see Hart 2009).

Other Evidence on Import Prices and Canada-US Price Gaps

Import-price studies provide further evidence for the existence of country-pricing. They show that exchange rate changes are not fully reflected in import prices even after long time periods and repeated price adjustments, and unlike wholesale prices these import prices contain a minimal local distribution component. A full pass-through of exchange rates to import prices would mean that a 1 percent appreciation of the Canadian dollar should lower the Canadian dollar price of US imports by 1 percent; studies using aggregated data (Campa and Goldberg 2002) or product-level data for apparel (Dong, Devereux and Tomlin 2013) find that the actual effect of a 1 percent appreciation is to lower the Canadian dollar price by 0.55 percent to 0.65 percent. This implies that exporters make higher profits due to better prices they receive per unit shipped to the Canadian border when the Canadian dollar appreciates, before most local distribution costs are factored in.

This incomplete pass-through of exchange-rate changes to prices for traded goods is not specific to Canadian imports. Similar behaviour has been observed for US imports (Burstein and Gopinath 2013) and for Canadian exports (Cao, Dong and Tomlin 2012). Although import prices from customs data are not available for our retail data set, other researchers using the same retail data have shown that products manufactured in a single location usually have different wholesale prices in each country. They maintain that gross wholesale margins are too small in this sector (about 16 percent) to generate such large wholesale price differences, constituting clear evidence of country-pricing (Burstein and Jaimovich 2013).

Evidence of Competition's Role in Canada-US Price Gaps

While legal and regulatory action by Ottawa may help lessen the degree of country-pricing, particularly if it enables Canadian retailers to buy directly at US wholesale prices, the use of market power to charge higher prices and not pass on cost reductions to consumers is ubiquitous in a market economy. The only thing stopping it is competition, and many claim that the Canadian marketplace suffers from being less competitive than the US market in certain aspects of manufacturing, distribution and retail. For example, former Bank of Canada Governor Mark Carney suggested that retail margins in Canada may be higher in Canada relative to the US because the top four retailers in Canada have a 28 percent market share, whereas the top four retailers in the US account for a 12 percent market share (Canada 2013). Nevertheless, the Retail Council of Canada has argued that Canadian retail margins are on par with those in the US (Canada 2013).

While defining a market and measuring competition is difficult, and no single measure is perfect, several studies of import and export prices

11 See the testimony of the Retail Council of Canada before the Senate committee for a discussion of this issue.

find evidence that firms that are larger or in less competitive sectors engage in more country-pricing (Auer and Schoenle (2013); Amiti, Itskhoki and Konings (2013); Berman, Mayer and Martin (2012)). Evidence from retail price data in another study indicates that both manufacturers and retailers with larger market shares have prices that are less sensitive to input costs (Hong and Li 2013).

To provide a sense of how competition impacts country-pricing, Figure 2 presents a scatter plot for 132 categories of the increase in Canada-US wholesale price gaps between 2004 and 2007 against the Canada-US ratio of the number of brands in that category carried by the cross-border retailer that I studied.[12] A brand here is defined as the entire product line of a manufacturer within a category; e.g., Sprite, Fanta and Coca-Cola for the Coca-Cola Company and Doritos, Cheetos and Lays for PepsiCo.[13]

The average product category in Canada has one-third fewer brands than in the US, indicating lower competition among manufacturers, but there is substantial variation across categories and some categories – such as Asian foods – appear to be more competitive in Canada. Between 2004 and 2007, Canada-US wholesale price gaps widened less in categories with greater competition, with the magnitude of the correlation suggesting that a reduction in the average brand gap from -34 to 0 percent in 2004 would have lowered the rise in wholesale price gaps between 2004-2007 by about 2 percent. That is a significant but not huge effect relative to the average increase of 14 percent that actually occurred.[14] Still, there is much less competition in food categories that saw the largest price increase in Canada relative to the United States, such as "Jewish specialty foods" (Manischewitz egg noodles), diapers or candy bars compared to seafood, which saw a relatively small price increase. Overall, the magnitude of the correlation suggests that greater competition does mitigate country-pricing but that the effect may not be that large.

Tariffs and Supply Management

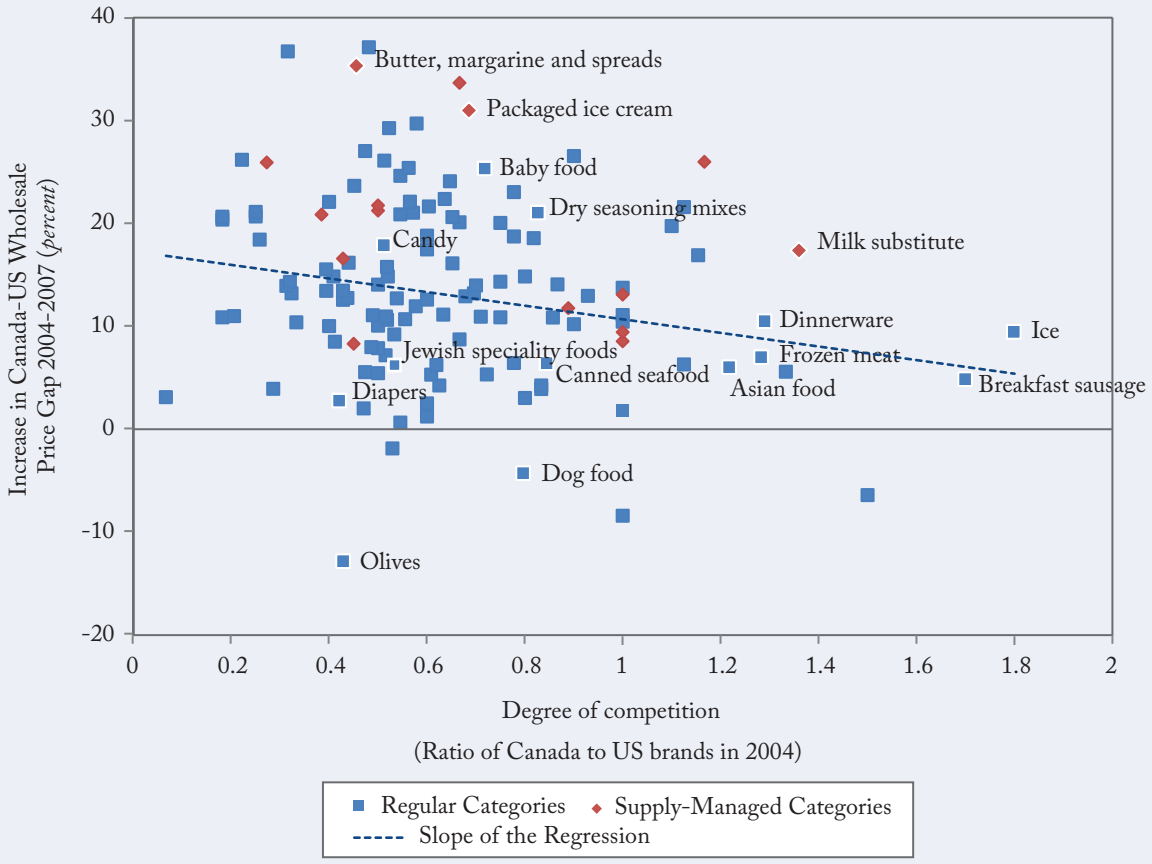
Supply-managed categories, denoted by a red diamond instead of a blue square in Figure 2, have wholesale price gaps that increased much more than would be expected between 2004 and 2007, given the number of competing brands alone. As well, high tariffs led to more domestic production and hence higher local costs tied to the Canadian dollar. High tariffs are intended to discourage foreign producers, who could potentially increase competition and mitigate country-pricing just through the threat of entry. The quantitative effect of supply management and tariffs is large: while the average US/Canada wholesale price gap of all goods widened by 14 percent between 2004 and 2007, the price gaps in the supply-managed/tariff categories rose by 9 percent more than in the other categories, even controlling for competition.

12 The relative price-increase measure uses the sales/promotional wholesale cost (averaged across the BC and Washington stores for the first half of 2004 and 2007) for each category, using a Tornqvist price index to generate a change in (common currency) prices between 2004-2007 for each country, and then taking this ratio across countries. The 132 measured categories include all categories containing at least 10 products sold by the chain in both countries, excluding alcohol, tobacco, books/magazines, prescription drugs, food service and in-store bakery items, as well as categories where most goods lack clear brand identifiers like fresh produce, floral, and (non-processed) meat and seafood.

13 In the case of store brands, we are not able to identify the manufacturer, which in some cases may be the retailer, in some cases may be a major brand manufacturer and in other cases may be a third party specializing in private-label production.

14 The slope of the regression line in Figure 1 is -0.056, and the effect is statistically significant (different than zero) at the five-percent level.

Figure 2: Wholesale Price Gaps and Competition, 2004-2007



Source: Author's calculations from retailer data and Canada/US exchange rates from FRED database.

While one should be cautious in extrapolating these findings about competition and tariffs to the entire set of goods consumed in Canada, there is similar cross-industry evidence that competition and tariffs affect changes in Canada-US price gaps for a wider range of goods using broader industry definitions. Looking at aggregate producer prices for 84 industries between 1961 and 1996, several studies find that movements in Canadian and US prices are more closely related when the effective tariff rate is lower and when competition is higher (Yan, Bernard and Warren 2007; Baldwin and Yan 2008).

Other Factors Driving Canada-US Price Gaps

My discussion of competition has so far been confined to manufacturers, but there are also important competitive interactions between the retail and manufacturing sectors. The lower degree of manufacturer competition in Canada relative to the US means the average Canadian retail store sells about 10,000 distinct products compared to about 14,000 in its US equivalent (Li 2012). Why is this the case? A substantial part of this gap – up to one-quarter – can be explained by two factors: larger US store sizes and denser regional store networks in the US relative to Canada (defined as the number of stores serviced by a single warehouse/distribution

centre). For example, the average US outlet for the supermarket chain I examined is almost 49,000 square feet and part of a regional network of 215 stores, versus the average Canadian store of 41,000 square feet in a network of 89 stores. That these size differences translate into product variety differences suggests an important complementarity between retailer size and the number of manufacturers that are able to effectively compete for consumer dollars. They also suggest that firms operating in Canada may face higher distribution costs, due to thinner regional markets, which could in turn induce firms to charge higher wholesale and retail margins. Retailer size also has direct implications for consumer welfare if consumers place a high value on product diversity, with one estimate putting the average benefit of shopping in a larger US versus Canadian store of this chain as equivalent to a 1.6 percent reduction in prices (Li 2012).

The recent evolution of competition at both the manufacturer and retailer level in Canada provides a last piece of the puzzle. If country-pricing and excess profits are important, we should expect to see more manufacturers and products entering the Canadian market. This is exactly the pattern observed for the retailer discussed here – between 2004 and 2007 the number of products sold rose more in Canadian than American stores, lowering the average Canada-US variety gap by about a tenth. Many new manufacturers have entered the Canadian market in the past decade, sometimes accompanied by their integrated retail operations, suggesting that Canada has become a more profitable market in recent years.

There has also been greater entry and expansion by some US retail chains in recent years, most notably Target. While this could be interpreted as evidence that retailing in Canada has become more profitable, recent news reports indicate that Target Canada and incumbents like Sears have been struggling.[15] On the other hand, Wal-Mart has continued to expand its Canadian presence, and it appears that competitive pressure in retail has spurred the recent wave of retail mergers in Canada such as the acquisition of Shoppers Drug Mart by Loblaws and Safeway Canada by Sobeys. Whether such mergers result in a shift of market power from large manufacturers to large retailers and if that will affect the degree of country-pricing and the size of retail price gaps is an open question. While larger retailers may be able to charge higher prices in Canada if this is accompanied by more local market power, companies like Wal-Mart have succeeded in part by charging lower prices than their competitors. Larger retailers may have lower costs due to better supply-chain management and scale economies. They also may be able to negotiate lower prices from manufacturers, and they may introduce more private-label goods that compete with national brands, intensifying competition across manufacturers and reducing the degree of country-pricing.[16]

Policy Implications

While local and retail-level factors have some impact on the large retail price gaps between Canada and the US, there is plenty of evidence that country-pricing by manufacturers also plays a role. However, there is little evidence to conclusively demonstrate what fraction of the wholesale price gap is due to a legitimately higher cost of operating in Canada. What can Canadian governments, especially the federal government, do to reduce the price gap between Canada and the US?

15 See *Globe and Mail*. Nov. 25, 2013 "Sears' troubles show Canada's shine fading for US stores." http://www.theglobeandmail.com/report-on-business/sears-troubles-show-canadas-shine-fading-for-us-stores/article15594848/.

16 See Hong and Li (2013) for evidence that private label goods exhibit greater price sensitivity to changes in input costs, which would be consistent with Canadian retail prices being more closely tied to US production costs for imported goods.

Reduce existing tariffs and taxes, and eliminate supply management

The easiest thing Canadian governments can do if they want to reduce the Canada-US price gap is eliminate existing tariffs and supply-management policies that are responsible for the largest price gaps. By shifting production to Canada and insulating domestic producers from any threat of lower-cost foreign competition, these policies generate large price gaps that become even larger when the Canadian dollar appreciates.

Other government policies that may be contributing to high price gaps include higher Canadian fuel taxes, property taxes, income taxes and stricter regulation, which could raise the cost of doing business in Canada for both manufacturers and retailers.

Increase retail-level competition

Reducing country-pricing will be more difficult since geographic price discrimination is widespread in market economies and is hardly unique to Canadian imports of consumer goods. The solutions discussed in the Senate Report that allow Canadian consumers to directly arbitrage retail price differences – higher customs allowances for cross-border travellers and for postal shipments (the *de minimis* provision) – may reduce country-pricing by manufacturers. The federal government increased, as of June 1, 2012, the value of goods that Canadian residents can bring into the country exempt from duties and taxes if they have been away for more than 24 hours. However, Canadians outside of the country for less than a day are not eligible for an exemption, and the higher limits may still be restrictive for many consumers. Recent evidence suggests that even modest distances are enough to prevent most consumers from cross-border shopping, limiting the pressure on manufacturers to set similar prices in each country (Chandra et al. 2014).

Increase wholesale-level competition

Given these limitations, increasing the ability of Canadian retailers to purchase goods at US wholesale prices could be much more effective. However, the policy instruments to achieve this are not obvious, particularly given the ubiquity of price discrimination by firms across geographic markets. Focusing on wholesale price-discrimination by manufacturers across Canadian and American retailers also ignores the many manufacturers with integrated retail operations.

A more market-oriented solution would be to foster greater competition among manufacturers by facilitating entry to the Canadian market for foreign manufacturers, particularly smaller ones. Finally, the evolving Canadian retail landscape merits closer research in this context, not only for the effects of retail competition on retail margins but also for the potential of larger retailers to mitigate manufacturer country-pricing by putting more competing products, including private labels, on the shelves.

Conclusion

As Canadian policymakers turn their attention to the relative prices of similar goods in Canada and the US, they should understand why prices for many goods are higher in Canada than in the US. In fact, the evidence shows that cross-border wholesale price gaps play a larger role than gaps in retail margins in generating higher prices for Canadians. And in many cases, government tariffs and policies such as supply management are responsible for these higher costs caused by the wholesale price gap. If the federal government is serious about reducing costs for Canadians, it should first look at some of its own policies before tasking the Competition Bureau with investigating companies charging higher prices in Canada relative to the US.

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