

CONSUMER IMPACTS OF BC'S HARMONIZED SALES TAX

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FEBRUARY 2011

*A paper prepared for the
Business Council of British Columbia*

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Consumer Impacts of BC's Harmonized Sales Tax:

Executive Summary

Even before its implementation, British Columbia's HST has been fraught with controversy and misconceptions—and these concerns continue to today. The public has been particularly troubled that the HST is a “tax grab,” with a large shift in tax burdens from businesses to consumers. Fuelled by vocal opponents and the highly visible nature of the tax, the public has perceived that the HST bites deeply into their pocketbooks.

This study takes a careful look at the impact of the HST on BC consumers and households. Based on the evidence, I conclude that the HST is not a “tax grab” and that its overall impact on the prices including taxes paid by consumers is very modest. Using Statistics Canada's monthly survey of BC prices through December of 2010, I have been able to compute the first estimate of the HST's actual impact in BC. My analysis of the consumer price index (CPI) finds that the HST resulted in a 0.6 of one percent increase in overall consumer prices in BC. This finding indicates that the average consumer is now paying just one additional dollar for every \$165 of spending. My estimate is relatively robust to variations in time period and methods of controlling for inflation, and it matches another study's estimated 0.6 of one percent CPI impact for Ontario's HST.

This small rise is at the low end of projections done by diverse organizations and economists in advance of harmonization. A key reason for the small measured impact on the CPI is that the HST replaced the province's former Retail Sales Tax (RST) and the federal Goods and Services Tax (GST), with no change in the total tax rate for most components of consumer expenditures. Only 17 percent of total consumer spending in BC became newly taxable. However, surveys find that more than half of all respondents mistakenly believe the tax rate has gone up with the HST for a range of consumer items that actually had no change in tax.

Another reason for the HST's small effect on overall consumer prices is that prices of a number of items have fallen slightly since the implementation of the HST. Public skepticism on this point is widespread. Admittedly it is difficult for consumers to identify small price cuts across a vast array of goods and services—whereas it is easy to see the HST, which is printed clearly on every sales receipt. But the different operation of the HST relative to the RST offers good reasons to expect the prices of some items to decrease post-HST. In this study I report on data that confirms that businesses have in fact passed through to consumers large amounts of their tax savings with the HST.

Poorly understood by the public is the differential operation of the HST relative to the RST that it replaced. I explain how the HST's removal of \$1.9 billion from the \$2.5 billion that businesses paid under the RST affects consumer burdens. Businesses passed along these so-called “embedded” taxes in the form of higher product prices for their customers. With the RST the effective tax rates—including the embedded taxes hidden in product prices plus the tax paid at the cash register—were higher than 7 and 0 percent, respectively for taxable and tax-exempt items. By eliminating the embedded taxes, harmonization has reduced the effective tax rates to a true 7 percent on taxable goods and a true 0 percent on

“zero-rated” goods (such as basic groceries). The HST also has a category of tax-exempt items (such as rental accommodation) with embedded taxes remaining, but it is just 30 percent of consumer spending versus 71 percent for the RST.

The reduction of effective tax rates on a large range of goods and services under the HST provides a major offset to the increased tax rates on goods and particularly the many services that became newly taxable for BC. A major critique by HST opponents, endorsed in surveys by the general public, is that the removal of embedded taxes from business will not pass through to consumers in the form of lower prices. My statistical analysis of the actual CPI data through December 2010 confirms that pass-through of the business savings has been large and rapid. Using as a control the inflation rate in the other western provinces, I find that in the month spanning the HST implementation (June to July) BC's CPI rose by 1.0 percent. In the next five months through December 2010, BC's CPI fell by nearly 0.5 percent, for a net total impact on BC's consumer prices (excluding energy) of just 0.6 percent. Tests for the impact on selected categories of consumer expenditures affected in different ways by the HST also showed generally sensible patterns, with restaurant meals rising 6.5 percent between June and December.

Since most of the previously embedded taxes were removed with the HST, the net burden on BC consumers was essentially the \$600 million of RST that had been imposed on goods and services produced in BC and sold outside the province. Importantly, the \$600 million in tax savings on BC-produced exports should not be viewed as a gift to either business or out-of-province purchasers. Lower costs for BC firms due to the HST allow our businesses to compete more successfully in global markets and in the rest of Canada, which means more investment and jobs in the province. For companies selling products with prices fixed in world markets, the savings from the HST translate into improved profitability, which also yields more investment and jobs in BC over time. Moreover, the lower costs for BC firms permit them to compete better with non-BC firms for in-province sales of goods and services, further raising the impetus for increased investment and employment in BC.

Another concern voiced by some HST critics is the regressive nature of the tax. While economists agree that sales-type taxes generally take a larger share of incomes for lower income households than for higher income households, a relevant consideration is whether the HST is more regressive or less regressive than the RST it replaced. My examination of the consumer data finds that lower income households spend larger shares of their budgets on categories of consumer goods and services that have experienced small price decreases, while higher income households spend more in areas with large price increases. This suggests that, contrary to widespread expectations, the HST is less regressive than the RST. In addition, the provision of HST credits to lower income households plus an income tax cut that disproportionately benefits moderate income households further makes BC's harmonization less regressive than the RST. The lowest income households are actually better off with the HST than they had been with the RST.

This study also suggests policy options to mitigate the relatively small, but still real, impact of the HST on most BC consumers. One option is to cut the HST rate by one percentage point, which I estimate would reduce the CPI by more than 0.5 percent,

offsetting most of the 0.6 percent increase in the overall CPI impact of the HST computed in this study. The \$800 million annual cost of this cut could be reduced by more than half by revoking the HST's compensatory measures and trimming the BC rebate for new housing. Another option would be to eliminate BC's transfer tax of 12 percent on private car sales. The government's hike in that tax from 7 percent was justified as part of the harmonization, but the entire tax runs contrary to principles of tax equity, neutrality with dealers, and not taxing again exchanges of previously taxed goods. If implemented together, these two options would fully insulate the average BC consumer, irrespective of income levels, from the impact of the HST. Another measure the government might consider is to expand the use of "tax-inclusive" pricing where posted prices have the HST included, starting in the food services sector. Consumers can encounter the HST multiple times a day—such as when buying their morning coffee, lunch, and an afternoon snack. Although tax-inclusive pricing does not reduce the burden of the HST, it would help lower the "irritant factor," and it still would leave the HST far more visible than the massive hidden tax burden that existed under the RST.

If the HST is abolished, British Columbians will face significant costs. While we could expect a 0.6 percent reduction in the cost of living, low-income households would lose their provincial HST credits. Also, the province would be faced with having to return the \$1.6 billion that the federal government provided to assist with the HST transition. It is not clear where this money would come from, but for illustrative purposes repaying the feds would be equivalent to raising the reinstated RST by 2 percentage points (from 7 percent to 9 percent) for a year. With the HST replaced by a return to the RST, the province would also need to reinstate its own sales tax collection agency, at a taxpayer cost of \$30 million per year for administration plus another \$50 million per year for compensating firms collecting RST. Businesses would undergo a disruptive and costly transition back to the old RST system, with much of those costs being passed through as higher prices to consumers. But by far the biggest economic cost of returning to the former RST would be the loss of future investment and jobs for British Columbians and an erosion of the province's competitiveness.

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Consumer Impacts of BC's Harmonized Sales Tax

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Both in the lead-up to its introduction and the subsequent period, British Columbia's Harmonized Sales Tax (HST) has been beset by widespread misconceptions concerning its impact on consumers and taxpayers. The HST has been characterized as a "tax grab" by the BC government, a large shift of tax burden from businesses to households, and a deep bite into the pockets of consumers. This paper will address the key assertions made by HST detractors and widely accepted by the general public. These assertions will be shown as erroneous and based on failure to understand the comparative operation of the HST and the retail sales tax (RST) that it replaced in mid-2010. I shall proceed by noting the assertions regarding the HST, explaining how the HST operates and how it differs from the RST in both structure and coverage, and reviewing forecasts about the consumer impacts of BC's HST made prior to implementation. I then produce the first estimates of the actual impact of the HST on BC consumers based on statistics for its first half year of operation. Next I address the common assertion that the HST is simply a "tax grab." Using these findings, I offer proposals for addressing the public's upset over the HST impact in three areas: 1) reducing the HST rate by one percentage point, 2) eliminating the provincial tax on private sales of used cars, and 3) requiring restaurants and purveyors of prepared foods as well as suppliers of homeowner services to state their prices on a tax-inclusive basis. These modest reforms should make the HST more palatable to the public and thereby preserve the major economic benefits of the reform.¹

HST Assertions and Misconceptions

HST a "Tax Grab"

Many commentators and critics have described the HST as a "tax grab" by the BC government. These include sources such as the Fight HST (2010) campaign, former NDP leader Carole James (2009), popular BC blogger David Schreck (2009), and writers from affected industries (for example, Carrick (2010)). An Ipsos Reid poll taken in late 2009 found that 90 percent of BC respondents agreed with the statement "the HST is just a huge tax grab by the provincial government and businesses might not reduce their base prices after implementation and pass the savings onto consumers ..." (Digital Journal (2009); Ipsos Reid (2009)). Commentators and critics have typically recognized that the shift from RST to HST would relieve businesses of their RST burdens, but they have been uniformly skeptical of the notion that much if any of these tax savings to business would be passed through to consumers in the form of lower prices.

¹ See Kesselman (2010a) and Finlayson and Peacock (2010) for evaluation of economic aspects of the BC HST.

Consumer Impact

Greatly exaggerated notions of the size of consumer impact have done much to fuel opposition to the HST. Leading the charge was a claim by leader of the “Fight HST” group and former BC Premier Bill Vander Zalm that “the average family in B.C. will pay in excess of \$2,100 per year in more sales taxes with the HST” (2009). These high estimates of the pocketbook impact of the HST have been echoed in remarks by others, such as a letter writer to the *Vancouver Sun*, who stated that with two young children her family has “estimated that our monthly expenditures will go up \$250 to \$500, depending on the month” (Arnott 2010). Even taking the lower figure, or \$3,000 per year, that implies the annual purchase of \$43,000 of goods and services that would become newly taxable with the HST. All of these figures are far larger than the pre-reform estimates of consumer impact from varied analysts including the TD Bank (2009), the Fraser Institute (Veldhuis et al. 2010), the Canadian Centre for Policy Alternatives (Lightman and Mitchell 2009), and the Bank of Canada (2010). Even after the HST had been in place for several weeks, 31 percent of British Columbians felt that “The HST has severely affected the finances of my household,” and another 37 percent responded “moderately affected” (Angus Reid 2010).

Coverage of HST

One reason for exaggerated notions of the consumer impact of the HST is widely held misconceptions about what items became newly taxable by the BC government in the shift from RST to HST. The HST Information Office established by the BC government to better inform the public in advance of the HST referendum commissioned a survey in November 2010 to assess the views and knowledge of residents (HST Information Office 2010a). Results of the survey revealed striking misconceptions about what items had become newly taxable by BC with the HST. It asked respondents whether they believed tax on various goods and services had increased with the HST: basic groceries (27 percent responded “significantly,” 36 percent “somewhat”; false except for snack foods); furniture and appliances (23 percent “significantly,” 25 percent “somewhat”; false); haircuts (27 percent “significantly,” 39 percent “somewhat”; true); re-sale homes (20 percent “significantly,” 16 percent “somewhat”; false except for commissions on the sale); new homes less than \$525,000 (23 percent “significantly,” 16 percent “somewhat”; false); restaurant meals (“significantly” 49 percent, “somewhat” 40 percent; true); electronics (“significantly” 22 percent, “somewhat” 26 percent; false); prescription drugs (“significantly” 13 percent, “somewhat” 21 percent; false); and gasoline (“significantly” 23 percent, “somewhat” 26 percent; false). In fact, most of these items had been fully taxed at a 7 percent RST plus 5 percent GST rate prior to harmonization and faced a combined but equal 12 percent rate under the HST. Similarly, in Ontario, which adopted an HST at the same time as BC, misconceptions about what was newly taxable lingered; a survey in October 2010 found that 56 percent of respondents erroneously believed the HST applied to resale homes (Abma 2010).

Operation of HST vs. RST

An understanding of the different operation of a retail sales tax (the format of BC's former provincial sales tax) and a value-added tax (the format of both the GST and the HST) is essential for explaining why the consumer impact of harmonization is so small. The

following examples assume a 7 percent tax rate for both the RST and the VAT—the same rates as BC's former tax and BC's part of the HST. The examples are used to show the consumer impact of each type of tax for goods or services that are taxable or tax-exempt (under the RST and VAT) and additionally for a category unique to the VAT: so-called “zero-rated” treatment. In each case, our interest focuses on the “effective tax rate” or ETR—which adds any taxes imposed on businesses in producing the item with those paid explicitly by consumers upon purchasing the item.

Table 1: Effective Tax Rates with Retail Sales Tax and Value-Added Tax: Examples of Taxable, Tax-Exempt, and Zero-Rated Goods and 7% Tax Rate

<i>Retail sales tax that hits some business inputs at each stage of production</i>				
Production stage	Cost	Inputs taxed	Tax on inputs	Sale price
1 – Raw materials	\$5.00	\$2.00	\$0.14	\$5.14
2 – Manufacturing	\$12.00	\$3.00	\$0.21	\$12.21
3 – Retailing	\$19.75	\$3.60	\$0.25	\$20.00
Sum of taxes on business inputs (embedded taxes) =			\$0.60	
<i>If good is taxable:</i>				
Tax @ 7% on final sale to consumer: $0.07 \times \$20.00 = \1.40				
Total taxes paid on item (final plus embedded) = $\$1.40 + 0.60 = \2.00				
Effective tax rate (ETR) on final sale value = $\$2.00 / \$20.00 = 10\%$				
<i>If good is tax-exempt:</i>				
Final sale is not taxed but contains embedded taxes of \$0.60				
ETR on final sale value = $\$0.60 / \$20.00 = 3\%$				
<i>Value-added tax that insulates inter-firm sales from tax by input tax credits (ITCs)</i>				
Production stage	Cost	Sale taxed	ITC	Purchase net of ITC
1 – Raw materials	\$5.00	\$0.35	–\$0.35	\$5.00
2 – Manufacturing	\$11.86	\$0.83	–\$0.83	\$11.86
3 – Retailing	\$19.40	\$1.36		
Sum of taxes on business inputs (embedded taxes) =			\$0.00	
<i>If good is taxable:</i>				
Tax @ 7% on final sale to consumer: $0.07 \times \$19.40 = \1.36				
Total taxes paid on item (no embedded taxes) = \$1.36				
Effective tax rate on final sale value = $\$1.36 / \$19.40 = 7\%$				
<i>If good is zero-rated:</i>				
Final sale is not taxed and contains no embedded taxes				
ETR on final sale = $\$0.00 / \$19.40 = 0\%$				

Operation of Retail Sales Tax

The upper panel of Table 1 shows the operation of an RST with three stages of business in producing a consumer good: extracting raw materials, manufacturing, and retailing. At each stage the business incurs RST imposed on some of its inputs, and the cost of this “embedded” tax gets built into the selling price for its product to the next business stage.² By the time the item gets to the final stage of retail sale, it has a total RST of \$0.60 embedded in its selling price, before adding the tax paid directly by the consumer. The sale price of \$20.00 has 7 percent tax imposed on the consumer for \$1.40 plus the embedded tax of \$0.60. The total tax on that product is \$2.00 and not just the \$1.40 that the consumer sees. The ETR is thus 10 percent ($\$2.00 / \20.00) and not the nominal or statutory 7 percent rate. Even if the item is “tax-exempt” under the RST format, it still bears the embedded taxes, so that its ETR is 3 percent and not the ostensible 0 percent.

Operation of Value-Added Tax

The lower panel of Table 1 shows the operation of a VAT with the same product, the same costs (other than taxes), and three stages of business. Now the entire sale price of raw materials and intermediate products between businesses is subject to tax (not just some of the inputs), but this tax is fully offset by the allowance of “input tax credits” to the purchasing business.³ Therefore, no taxes get embedded in the production process, regardless of whether the product is taxable (subject to the 7 percent rate at retail sale) or “zero-rated” (free of tax at retail sale). With the VAT format, a 7 percent nominal or statutory tax rate also yields a true ETR of 7 percent and nothing more for taxable goods, and zero-rated goods bear a true ETR of 0 percent rather than the positive ETR borne by goods that are “tax-exempt” under a RST. Not illustrated in the table is the further case of tax-exempt goods under a VAT, which bear embedded tax (but usually only the tax paid by the business making the final sale to the consumer) somewhat like tax-exempt treatment under the RST with a positive ETR.

Removing RST Embedded Taxes

A key difference between the RST and VAT formats is that the latter (and the HST) removes all embedded taxes from goods and services whether they are treated as taxable or zero-rated. Under BC's former RST, about \$2.5 billion annually or 48 percent of total RST revenues took the form of these hidden, embedded taxes. Those taxes were paid in the first instance by businesses but were passed along in the form of higher prices to consumers. BC's shift to the

² In fact, BC's former RST did provide exemption from tax for some business inputs in selected sectors, but the exemptions overall were very limited since they left \$2.5 billion of RST on businesses. The RST format's inherent difficulty in distinguishing between business and consumer purchases of many items is discussed in Cnossen (1987). The RST also gives government the option of collecting taxes without them being visible to voters other than business owners, which provides an incentive for heavy tax on businesses even if borne by households.

³ Throughout this paper, I ignore the existence of two factors that can leave a small amount of HST borne by businesses embedded in the prices of both HST-taxable and zero-rated products. First is a temporary partial restriction on input tax credits that can be claimed by businesses with sales over \$10 million; this entails an annual cost of just \$162 million and will be phased out after five years (BC Ministry of Finance 2010, p. 101). Second are purchases by businesses producing HST-exempt items (mainly financial services) that yield some embedded tax in their sales. The great majority of tax-exempt items under the HST are purchased solely by consumers and not much used as business inputs and therefore lead to significantly less embedded tax than an RST.

HST has removed \$1.9 billion—three-quarters of the embedded tax under the RST—from business.⁴ A central issue in assessing sales tax harmonization in BC is the extent to which and how quickly the removal of most of those embedded taxes on business will be “passed through” to consumers in the form of lower prices. HST critics assert that little or no pass-through arises with harmonization. I later review the assumptions about pass-through in forecasts of the consumer impact of harmonization, and I follow this with statistical evidence from BC's experience with the HST through December, 2010, that shows the actual extent of pass-through.

Coverage of HST vs. RST⁵

Tax harmonization in BC shifted a relatively small number of tangible goods from tax-exempt to taxable status (most tangible goods had already been taxable under the RST). As shown in the previous section, those goods had their ETRs increased from small positive numbers (not zero) to 7 percent. Notable examples of goods newly taxable by BC under the HST (all already taxed by the federal GST) include magazines and newspapers, restaurant meals and other prepared foods, non-prescription medicines and vitamins, and tobacco products. Newly constructed housing for both ownership and rental usage was also added to taxable goods under the BC portion of the HST. However, I later show that except for highly valued new homes this expansion of the BC tax had little impact on costs because of a very generous BC rebate on new housing. That rebate fully insulates from incremental tax new units up to \$525,000 and offers a flat rebate of \$26,250 on higher-valued homes, for a total annual revenue cost of \$615 million. Harmonization also shifted some categories of tangible goods from tax-exempt under the RST to zero-rated under the HST, thus *reducing* their ETRs from positive figures to zero; basic groceries are the most important example.

Coverage of Services

The largest changes in coverage by the HST were the addition of many formerly tax-exempt services to taxable status for BC. All of those newly added services had already been taxable under the federal GST, thus raising their ETRs from something above 5 percent including embedded BC taxes to the full 12 percent. Examples of newly taxable services for BC include shoe repair and tailoring, basic cablevision and local residential phone, repair and maintenance of household appliances and real property, parking, massage therapy, golf and gym memberships, admission to sporting, movies, and cultural events, interior designer, wedding and event planning, accounting, hair stylist and barber, esthetician, veterinarian, and domestic non-public bus, rail, and air travel.

A number of services had already been taxable under BC's RST and remained taxable under the BC portion of the HST. These included legal services (other than legal aid), automobile repairs, furniture re-upholstery, repairs to appliances outside of the home, equipment rentals, photo finishing, specialty cable tv, and mobile and long-distance phone. While the statutory tax rate on these services remained at 12 percent, their ETRs had

⁴ The remaining roughly \$600 million of embedded taxes under the BC HST are due to HST-tax-exempt treatment of items such as financial services and rental accommodation. The input tax credit restriction will increase embedded taxes for the first few years (see previous note).

⁵ For an extensive listing of changes in taxable coverage of goods and services with the BC harmonization, see HST Information Office (2010b).

exceeded 12 percent with the RST and *declined* to 12 percent with harmonization, since taxes embedded in their supply were offset with the provision of input tax credits.

Several important services that were tax-exempt under the RST remained tax-exempt under the BC portion of the HST. Major items were childcare, legal aid, long-term rental accommodation, books (via a BC point-of-sale rebate), and health care services including dental, a wide range of medical, psychiatry, audiology, chiropractic, and physiotherapy (but not massage therapy). Some of these items, such as rents and childcare, loom particularly large in the budgets of lower-income households, so their continued exemption from tax helps to reduce the regressivity of BC's harmonization. However, note that even though rents remain tax-exempt, some inputs to the operation of rental housing such as services for maintenance, repair, and gardening became newly taxable for BC; over a longer period of time, those increased costs to the property owner will likely work their way into the rental structure. I later offer a rough assessment of the extent to which harmonization affected the overall distributional pattern of BC's sales taxes.

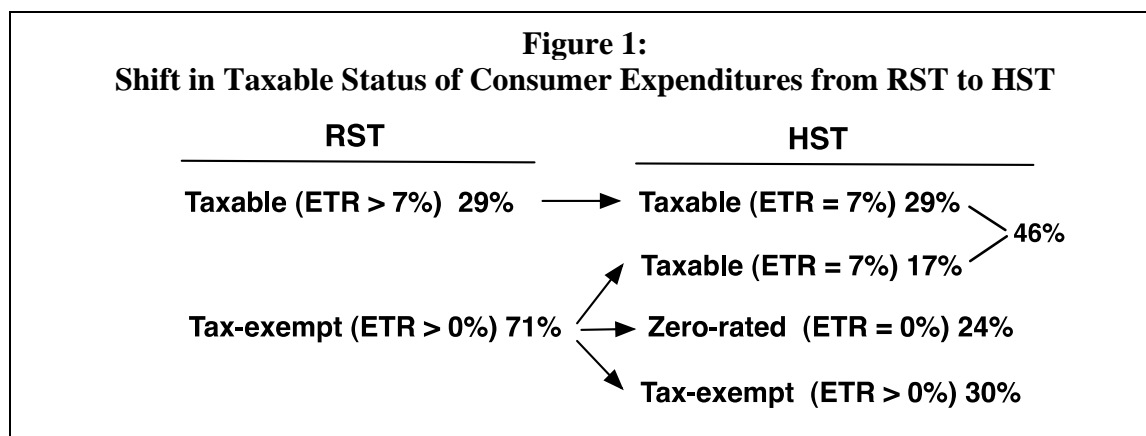
Table 2: Change in Composition of Taxable Items with Harmonization and Illustrative Effective Tax Rates

Composition of consumption	BC consumer expenditures (%)	Illustrative ETR (%)
<i>BC Retail Sales Tax (pre-HST)</i>		
Taxable items	29	8.3
Tax-exempt items	71	1.2
<i>Total or average</i>	<i>100</i>	<i>3.3</i>
<i>HST (BC portion only)</i>		
Taxable items	46	7.0
Zero-rated items	24	0.0
Tax-exempt items	30	2.4
<i>Total or average</i>	<i>100</i>	<i>3.9</i>

Source and notes: Allocation of consumer expenditures across taxable categories estimated based on Provincial Economic Accounts for 2009 for BC (Statistics Canada); note that consumer expenditures in the economic accounts excludes purchases of new homes (classified as business investment); imputed rental value of owner-occupied housing has also been excluded from the measure of consumer expenditures in the table.

Expenditures on items that receive a point-of-sale rebate for the provincial part of the HST or residential energy credit are counted as zero-rated items as they bear zero net tax for the consumer, and businesses selling those items can claim input tax credits for the taxes paid on their purchases.

Effective tax rate figures are presented for illustrative purposes, as no direct measures were available. Average ETRs under each tax regime are the weighted averages of the respective ETRs by taxable category.



Changes in Coverage and ETRs

Table 2 presents figures intended to assist in understanding the ETR impacts of changing the coverage and tax treatment in the shift from BC's RST to the HST. The first column of figures shows the composition of total expenditures by BC consumers across the types of tax treatment under each of the tax regimes.⁶ Under BC's RST about 29 percent of consumer expenditures were taxable, with the other 71 percent being tax-exempt. BC's part of the HST increased the taxable share of consumer expenditures to 46 percent (mostly increased coverage of services), while the tax-exempt share declined even more sharply to 30 percent, with the balance of 24 percent going to the HST tax treatment of zero-rated. Figure 1 shows more clearly how the 71 percent of consumer expenditures previously treated as tax-exempt was distributed into the three types of tax treatment under the HST. While 17 percent of total expenditures shifted from tax-exempt to taxable,⁷ thus raising the overall ETR under the HST, and 30 percent remained tax-exempt, equally important was the 24 percent that shifted from tax-exempt (ETRs greater than zero) to zero-rated (ETR of zero). Hence, the harmonization involved a more complex shift than simply making more items taxable. Offsetting the impact of that change on the ETR were the shift of previously "tax-exempt" items and "taxable" items, both with embedded taxes, to zero-rated and taxable status both without embedded taxes.

The next column of Table 2 shows this impact on the average ETR under each regime with illustrative figures since direct figures are not available. The ETR for both taxable and tax-exempt items under the RST exceeded their respective nominal tax rates of 7 and 0 percent, respectively. The indicated average ETR for the RST is an average of those ETRs weighted by their respective shares of consumer expenditures.⁸ With HST the substantial share of consumer spending that has become newly taxable for BC faces an ETR of 7 percent but a smaller increase than that because it had previously borne a positive ETR under the RST. Moreover, items that were previously tax-exempt under the RST and became zero-rated with the HST enjoy a decline in their ETR. Conversely, RST tax-

⁶ These figures are best approximations based on sources and assumptions described beneath the table, and they should not be regarded as precise numbers.

⁷ This 17 percent figure was identical for Ontario's harmonization, although the list of newly taxed goods and services differed somewhat from BC's (for example, prepared food and beverages of \$4 and over had previously been subject to Ontario's RST).

⁸ That is, $0.29 \times 8.3 + 0.71 \times 1.2 = 3.3$.

exempt items that remained tax-exempt under the HST likely experienced ETR increases because the HST expanded taxable coverage of services, many of which are inputs to tax-exempt items. The HST has to generate additional revenues to cover the taxes previously embedded in exports from the province and the cost of BC's HST compensatory provisions (\$410 million).⁹ Thus, even with complete pass-through and net revenue neutrality, the average ETR of the HST exceeds that of the RST.

Consumer Impact: Extent of Pass-Through

A key issue in assessing the consumer impact of BC's sales tax harmonization is the extent to which the former RST burdens on businesses embedded in consumer prices will be passed through to consumers when removed. At issue are both the ultimate extent of pass-through and the speed at which this pass-through occurs. With competitive product markets, one would expect the business taxes, like any component of cost, to be fully borne by consumers and their removal to be fully passed through to benefit consumers. To the extent that product markets are less than competitive, or oligopolistic with few suppliers of a given product, pass-through might be only partial. However, a further possible outcome is that pass-through is more than 100 percent, so that removing a dollar of business tax burden results in *more than* one dollar of savings to consumers in reduced prices. This case could occur when the tax is removed from business investment in a capital-intensive industry, such as telecommunications (e.g. cellphones), permitting new entrants to pay less for their capital than the incumbents had paid; the lower consumer prices charged by the new entrants forces the incumbents also to compete with lower prices.¹⁰ In this section, I review previous analyses of tax pass-through to consumers using two methods: forecasts based on economic modeling with various assumptions, and empirical evidence based on previous reforms similar to BC's harmonization. In a later section I analyze the empirical evidence based on BC's actual HST experience.

Before reviewing estimates of the consumer price (CPI) impact of BC's tax reform, I offer evidence about the amount of embedded taxes borne by BC consumers under the RST and the likely range of outcomes for pass-through with harmonization. The RST imposed \$2.5 billion annually on business inputs, and harmonization has removed \$1.9 billion of that burden. However only 52 percent of the embedded taxes are related to BC consumers' purchases, with 33 percent to buyers outside the province, and the remaining 15 percent to public sector bodies (municipalities, universities, schools, colleges, hospitals) and non-profit and charitable organizations.¹¹ Since the latter organizations were insulated against incremental HST burdens by special provincial rebates, that eliminates \$300 million from possible shifting to consumers. As a result, the implied maximum shift of tax burden onto BC consumers would be \$1.6 billion (\$1.9 billion minus \$300 million) if pass-through

⁹ This compensation was forecast for fiscal 2011/12 at \$227 million for the BC HST credit to lower-income households plus \$183 million for the increased personal income tax exemption; BC Ministry of Finance (2010, p. 101). Also, note that the share of direct burden born by the public sector bodies was nearly unchanged with harmonization due to the provision of BC rebates at rates calculated to insulate the various components of the sector; however, these bodies benefited indirectly from reduced embedded taxes on their purchases.

¹⁰ This case is posited in Ontario Ministry of Finance (2010, p. 17).

¹¹ Estimates are based on Statistics Canada's National and Provincial Input-Output Tables.

were zero. That figure plus the revenues needed to finance BC's companion changes would entail a likely maximum impact on the provincial CPI of about 1.3 percent.¹² If businesses were to pass through all their tax savings on inputs used to produce items destined for BC consumers, the maximum tax shift to consumers would be only the \$600 million share of the removed embedded taxes now borne by exports from the province plus the revenue needed to finance BC's companion changes. That amounts to about 0.6 of one percent of consumer expenditures, the likely minimum impact of harmonization on the provincial CPI.

Forecasts of CPI Impact

Several economic forecasts of the CPI impact were undertaken prior to the effective date of the harmonization. These forecasts employ input-output tables tracing how various intermediate inputs (and their associated taxes) work their way through the economy from raw materials to production to distribution. They also must employ specific assumptions about the extent and speed of pass-through of the business tax savings into consumer prices. The TD Economics study of the BC harmonization forecast a CPI impact of 1.5 percent immediately if pass-through were zero and 0.7 percent if complete pass-through arose after sufficient time.¹³ However, that forecast was undertaken prior to the BC government's enrichment of the BC HST housing rebate, which would lower both figures somewhat. The Bank of Canada has also provided inflation forecasts for the country as a whole both with and without the BC and Ontario sales tax reforms (2010, pp. 21-22). The maximum difference was 0.4 percent in third quarter of 2010 and shrinking to smaller figures in the succeeding quarters. Since those two provinces account for about half of the nation's total GDP, the implied inflation impacts in the two newly harmonizing provinces were a maximum of 0.8 percent in the first quarter and declining figures as more time was allowed for tax pass-through to consumers.

Evidence from Previous Tax Reforms

Previous tax reforms analogous to BC's sales tax harmonization provide further evidence on the extent of pass-through when businesses are relieved of taxes on their inputs. First was Canada's original move to a value-added tax in the form of the GST in 1991; this replaced a tax imposed on businesses in the form of the federal manufacturers' sales tax. Analysis of that tax reform found only a small net increase in consumer prices, reflecting the pass-through of "most of the savings" from business to consumers in the first year (Consumer and Corporate Affairs Canada 1992). The second example was sales tax harmonization by the three larger Atlantic provinces in 1997, when they merged their provincial taxes with the federal GST in

¹² This calculation is based on a projected \$140 billion of consumer expenditures in BC for 2011 (projecting CANSIM v687682 for BC for 2009 of \$126.8 billion by 10 percent to 2011); the figure also requires adjustments, such as counting the extra \$410 million of HST revenue needed to balance costs of the BC HST credits and the increased basic allowance for BC income tax, and the partially offsetting \$150 million savings to business in reduced compliance costs with HST.

¹³ The TD Bank Financial Group (2010) study assumed 80 percent pass through by the end of the first year and 95 percent within three years of the reform.

Canada's first Harmonized Sales Tax.¹⁴ Analysis of that tax reform found that overall consumer prices fell with the reform, roughly in line with the expected pattern across the expenditure categories. The resultant findings suggest substantial pass-through of business tax savings to consumers "although prices rose somewhat for purchases of shelter, clothing, and footwear..." (Smart and Bird 2009a, p. 86). In contrast to the Atlantic harmonization, for BC clothing and footwear prices would be expected to decline since the pass-through savings should swamp the tiny expanded coverage of adult-sized children's clothing and footwear.

Consumer Impact: Statistical Evidence for BC

Methodology

Previous forecasts of the consumer impact of harmonization relied on economic models and various assumptions regarding pass-through to consumers of the business tax savings. With consumer price index data now available for BC for six months following the abolition of the RST and implementation of the HST, a direct measure of the consumer impact can be made without any economic assumptions. Table 3 presents computations of the changes in BC's CPI for several periods: the June to July 2010 one-month period of the switch from RST to HST to measure the immediate impact; the July to December 2010 period to gauge the subsequent impact including any pass-through for the most recent period for which data are available; the full six-month period from pre-HST in June 2010 to December 2010 to gauge the CPI impact to date; and the full year period December 2009 to December 2010 to provide a longer period and remove any effects of seasonality.¹⁵ The table includes the CPI for all items and for all items excluding energy, which is deemed preferable because it removes the volatile component of energy prices.¹⁶ Table 3 also includes CPI changes for expenditure categories that provide some insight into HST impacts because items previously tax-exempt were either zero-rated or newly taxed by BC.

Table 4 presents computations of changes in BC's CPI for the same choice of periods and CPI expenditure categories but controls for general inflation and inflation of specific expenditure categories that have occurred independently of the harmonization.¹⁷ This control is implemented by taking the average of CPI changes in each of the respective expenditure categories for the other three western provinces (Alberta, Saskatchewan, and Manitoba). The choice of these three provinces to act as "controls" for the BC price changes is justified by their relative proximity to BC, the resource orientation of their economies similar to BC's, and the fact that they are the only three Canadian provinces other than tiny Prince Edward Island that do not have an HST. The figures for the

¹⁴ The Atlantic provinces' HST was preceded by Quebec's move to a value-added tax shortly after the initial GST. Although Quebec's sales tax is not formally "harmonized," it is close to the federal GST with minor variations in coverage of consumer goods and input tax credits.

¹⁵ As Statistics Canada (n.d.) states, "the CPI is more accurate as an indicator of change over several months or a year compared to the accuracy of the price change measured from any one month to the next."

¹⁶ Also reinforcing this preference is the fact that BC's HST did not extend to home heating fuels and electricity (through a rebate) or to gasoline, so that the CPI excluding energy does not omit any HST impact for British Columbians.

¹⁷ In research design, this method is called "difference in differences," since it combines a "before-after" comparison for BC with a "with-without" comparison of experience between BC and provinces that did not harmonize over the same "before-after" period. See Wikipedia.

category of tobacco products and smokers' supplies has been adjusted to remove the impact of significant tax hikes on tobacco products in the 2010-11 budgets of Manitoba and Saskatchewan (affecting only the period prior to BC's harmonization).

Table 3: Price Level Changes for Various Consumer Categories, BC (percents)

Expenditure category	Jun 10- Jul 10	Jul 10- Dec 10	Jun 10- Dec 10	Dec 09- Dec 10
All items	1.1	0.0	1.1	2.4
All items excluding energy	1.0	-0.1	0.9	1.7
Food purchased from stores	0.1	0.9	0.9	1.8
Food purchased from restaurants	6.4	0.8	7.2	7.5
Rented accommodation	0.1	0.5	0.6	1.5
Homeowners' maintenance and repairs	2.5	-3.1	-0.7	1.9
Telephone services	1.5	0.3	1.8	1.9
Clothing and footwear	0.1	-3.3	-3.2	-4.4
Personal care	1.5	0.6	2.1	2.2
Recreation	2.0	-3.5	-1.6	0.4
Tobacco products and smokers' supplies	6.4	1.6	8.1	8.6

Source and notes: Statistics Canada (monthly issues December 2009 through December 2010), data retrieved via CANSIM; price changes are in percents per specified period (not annualized); figures for Jun 10-Dec 10 do not always add exactly because of rounding.

**Table 4: Price Level Changes for Various Consumer Categories, BC,
Controlling for Price Level Changes in Other Western Provinces (percents)**

Expenditure category	Jun 10- Jul 10	Jul 10- Dec 10	Jun 10- Dec 10	Dec 09- Dec 10
All items	1.0	-0.4	0.6	1.1
All items excluding energy	1.0	-0.5	0.6	0.6
Food purchased from stores	-0.7	0.8	0.1	1.2
Food purchased from restaurants	6.3	0.2	6.5	5.4
Rented accommodation	0.0	-0.3	-0.3	-0.4
Homeowners' maintenance and repairs	2.3	-3.7	-1.5	3.2
Telephone services	1.5	0.2	1.7	0.4
Clothing and footwear	0.2	-0.4	-0.2	-1.8
Personal care	2.1	-0.3	1.9	1.4
Recreation	1.4	-1.3	0.1	0.7
Tobacco products and smokers' supplies	5.8	1.9	7.8	7.1

Source and notes: control undertaken by the author by subtracting the unweighted average price change for respective expenditure category in Alberta, Saskatchewan, and Manitoba for the respective period; the figures for Manitoba and Saskatchewan for the tobacco products category were adjusted to remove the effects of tax increases in their 2010-11 budgets, using information from those budgets and Smoking and Health Action Foundation (2010). See Table 3 source and notes.

Statistical Findings

The results for the consumer impact of BC's HST without any controls for general inflation (Table 3) are well within the range forecast by economic models. For the month of the reform, June-July 2010, the impact on the price of all items excluding energy was 1.0 percent, and for the succeeding five months, the impact was -0.1 percent, for a total impact over that six-month period of 0.9 percent. Controlling for general inflation (Table 4), the corresponding price impacts for BC were 1.0 percent in the first month and -0.5 percent in the next five months, for a net impact of 0.6 percent over the six-month period (rounding of the individual figures accounts for the total figures not adding exactly). Moreover, using the controlled figures, for the full one-year period bracketing BC's harmonization, the net impact was also 0.6 percent. This figure is at the bottom end of the forecast consumer impacts of harmonization and, remarkably, only for those that assumed full pass-through of the business tax savings after an extended period. Also notable is that my estimate of the HST impact for consumer prices in BC matches an estimate of 0.6 percent for Ontario's tax harmonization in another study.¹⁸

Most of the CPI impacts for specific expenditure categories charted in the tables also make sense based on the changes in coverage with BC's harmonization. Focusing on the controlled figures in Table 4 and the full six-month period, the largest impacts can be seen on the two categories that became newly taxed: food purchased from restaurants (6.5 percent, somewhat less than the 7 percent tax, perhaps reflecting pass-through) and tobacco products (7.8 percent, somewhat higher than the 7 percent tax). Several expenditure categories show negative figures for the CPI impact (rented accommodation, homeowners' maintenance and repairs, and clothing and footwear).¹⁹ Those results may reflect some pass-through, which seems to be confirmed by the fact that five of the nine specific product expenditure categories tabled show negative figures for the five-month period July-December 2010 following the harmonization. Expenditure categories such as personal care and recreation that had substantial services added to BC's tax base show positive figures of 2.1 and 1.4 percent for the reform month (both well below 7 percent, as expected) and 1.9 and 0.1 percent for the six months, respectively. Thus, the areas of increased taxation of services in BC displayed only very modest consumer price impacts.

I also examined the price patterns on owned housing, but these revealed that BC had virtually no change either between June and July 2010 or between June and December 2010 for both the broader category and the subcategory of "replacement cost" despite the additional BC HST. This outcome likely reflects the fact that the great majority of units received sufficient BC HST housing rebate to offset all or most of the incremental cost. Only new units costing more than \$525,000 bear any incremental cost relative to the RST that they had borne on materials, supplies, and equipment; even higher-priced units benefit from a flat rebate amount of \$26,250 offsetting part of

¹⁸ Smart's (2011) estimate uses a difference-in-differences method similar to the present study but with Quebec as the control province and excludes the replacement cost of owned accommodation.

¹⁹ However, one would expect homeowners' maintenance and repairs to be a positive figure for the six-month period given the addition of on-site labour value to BC's taxable base with the HST. This might be explained by the seasonal impact of the large -3.7 percent change for July-December 2010, in which the comparator provinces have more severe winters affecting the types of repairs undertaken.

their BC HST.²⁰ This conclusion is consistent with the estimate that new housing had \$267 million of embedded RST annually versus the \$300 million BC HST net of the BC HST housing rebate, for an increased tax burden on the sector of only \$33 million per year.

Sensitivity Analysis

Since the results are potentially sensitive to how one chooses to control for inflation that would have otherwise occurred in BC over this period, I examined alternative controls. First, I weighted the CPI changes of the other three western provinces by their populations. Because of Alberta's much larger population than the other two provinces and its abnormally low inflation over this period, this changed the results slightly but left the general pattern of price changes across expenditure categories unchanged. Second, I took the CPI changes for all of Canada except the two newly harmonizing provinces (BC and Ontario) as the control (taking the all-Canada CPI changes and removing those two provinces by applying their GDP weights). For the estimated impact of the HST on BC for all items excluding energy, using this alternate control had only a small effect for the 6-month period (just 0.1 of one percent higher) and no effect for the 12-month period (all relative to the unweighted western provinces control). As a result of these sensitivity analyses, I regard my basic findings as relatively robust and prefer the original control.

Summary of Statistical Findings

My estimated impacts of BC's harmonization exercise on consumers are critical to the evaluation of this policy and warrant brief summary. When controlling for general price movements that would have occurred without the HST, I find the following impacts on consumer prices *including taxes* faced by British Columbians for the first six months since the old RST was abolished and the HST instituted:

- For expenditures on all goods and services excluding the volatile energy component, prices rose by 0.6 of one percent; the same figure also emerged for the full one-year period bracketing the harmonization.
- This 0.6 percent price impact of the harmonization consisted of plus 1.0 percent in the first month (June to July 2010) followed by minus 0.5 percent for the following five months (with 0.6 rather than 0.5 the result of rounding). The negative figure for the five months from July through December 2010 is evidence of substantial pass-through to consumers of the tax savings for business; moreover, of the nine expenditure categories tabulated, the five-month figures are negative for five, a small plus 0.2 percent for two, and more substantial positive figures for just two.
- For food purchased from stores (including basic groceries that had no additional tax and snack foods that were newly taxed by BC), prices rose by 0.1 of one percent, most likely reflecting a decline in the prices for basic groceries alone.²¹

²⁰ The BC housing rebate is 5 percent of the sale value of the new home (up to the specified limit), based on the estimate that the previous RST on materials, supplies, and equipment used in building homes and embedded in their costs averaged 2 percent of their sale value.

²¹ Since newly taxed "snack foods" and like items such as soft drinks constitute more than 0.1 of one percent (one-thousandth) of all grocery spending, the full range of basic groceries must have declined in price, as expected with the pass-through of business tax savings under the HST.

- For food purchased from restaurants and other prepared food vendors, prices rose by 6.5 percent, which was less than the newly added 7 percent tax.
- Tobacco products displayed a price increase of 7.8 percent, which was larger than their newly added 7 percent tax.
- Telephone services, which had no change in tax for long-distance and cellular phones but 7 percent tax newly added to basic residential service, showed an overall price increase of just 1.7 percent.
- Personal care and recreation services, expenditure categories which both contained numerous newly taxed components, experienced unexpectedly small price increases of 1.9 percent and 0.1 of one percent, respectively.
- Three expenditure categories displayed price *declines*: clothing and footwear (minus 0.2 of one percent), rented accommodation (minus 0.3 of one percent), and, unexpectedly, homeowners' maintenance and repairs (minus 1.5 percent).
- New housing units showed almost no price change over this period, with the new 7 percent tax being offset by elimination of the 2 percent of RST embedded in materials, supplies, and equipment in construction plus the 5 percent BC rebate for new housing up to \$525,000 and flat rebates of \$26,250 for higher-valued homes.

“Tax Grab” and Revenue Neutrality

Misconceptions about the HST extended from the feared consumer impact to whether businesses would pass through their savings to the notion that the reform constituted a “tax grab” by the BC government. For some critics the notion of a tax grab was simply the shift of burden from businesses to consumers. The cited computation of price impact on consumers demonstrates both the existence of significant and fast pass-through and the relatively limited extent of “tax grab” in shifting burdens to consumers. Other critics, even more misinformed, thought that the HST was implemented by the BC government as a means to generate more tax revenues in total.²² In fact, as documented in BC's 2010-11 budget, the entire package accompanying the reform was designed to be neutral in its net budgetary impact (BC Ministry of Finance 2010, p 101). For 2011-12, the first full fiscal year with the HST, the tax is forecast to yield \$6.9 billion before netting out a range consumer rebates and credits, and \$5.4 billion after netting those amounts. A further \$410 million is forecast to be the cost of the BC HST credit for low and moderate earners plus the increase in personal tax threshold for all income tax payers, yielding net revenues from the harmonization at \$5.0 billion—exactly the projected loss of revenues from abolition of BC's RST.

If BC's overall tax harmonization was revenue neutral after accounting for various rebate and tax compensation measures, why should consumer prices be affected? The answer revolves around the tax relief given to BC businesses producing goods and services for

²² A 2009 survey of British Columbians revealed beliefs that the following groups would benefit “very much” or “somewhat” from the impending harmonization: provincial government (90 percent agreeing), federal government (82 percent), business (39 percent), and consumers (3 percent); Ipsos Reid (2009). Just as surprising as the high percentage believing that the BC government would gain is the low percentage believing that business would gain.

sale to markets outside the province. For overall net revenue neutrality, those tax savings must be paid by resident consumers in BC, albeit with a small 0.6 of one percent impact. Is the business tax savings simply a gift to out-of-province purchasers of BC goods and services? For some products the lower cost with HST input credits allows BC businesses to compete better by offering lower prices in out-of-province markets. The benefit to British Columbians will be more and better-paying jobs. For most products where BC sells at world prices, the benefit will be greater profitability yielding more investment and business expansion in BC, again with the benefit of more and better-paying jobs. BC-based businesses will also become more competitive for in-province sales competing with out-of-province firms. Increased BC business activity via all of these channels will increase provincial revenues through higher personal, corporate, property, and sales taxes.

Suggested Policy Remedies

My analysis and discussion finds that BC's shift from a retail sales tax to the HST had a far more moderate impact on consumer-taxpayers than is widely believed and clearly cannot be deemed a "tax grab." Consumers had been paying not all that much less taxes in total under the RST than they do now under the HST, but much of those taxes had been hidden in product prices resulting from RST embedded in business costs. Making those hidden taxes much more visible by shifting them to the level of purchase by the consumer is apparently the reason for BC consumers being upset over the harmonization. A similar shift and upset occurred in 1991 with the federal government's replacement of a hidden 13 percent manufacturers' sales tax by the GST. Primarily because of the elimination of tax burdens on BC's industries selling products outside the province, the impact on BC consumers to date has been just 0.6 of one percent. Even if BC's HST scores well on economic grounds, one can still contemplate policy measures to relieve the public's upset over the HST impact on their pocketbooks; these reforms can further improve the HST's substance as well.

Distributional Issues

Before considering remedial policy measures, I first address the concerns expressed by some observers over the distributional impacts of the harmonization (for example, Ivanova 2010). The HST is said to be, and is, a regressive tax; that is, it takes a higher proportion of a lower-income household's budget than of a higher-income household's budget. However, the relevant question is whether the HST is more regressive or less regressive than the BC RST that it replaced. Since the two taxes raised the same amount of net revenue and there is only a small increase in the total consumer burden, the question can be more finely focused on the relative distributional pattern of the goods and services that experienced smaller or larger price changes with the shift to HST. Table 5 displays the pattern of consumer spending across major categories of goods and services and by household income quintiles (fifths of the population). I have grouped the categories into three classes based on the expected consumer price impact reflecting the changes in tax treatment under the HST: those with prices expected to be roughly unchanged or show a small decline; those with an expected small increase; and those with an expected larger

increase.²³ For the class of items expected to show a small increase in prices, the share of household budgets is approximately equal across the income quintiles. For the class expected to show no change or small declines in prices, the lower quintiles spend more of their total budgets than the higher quintiles. And for the class expected to show larger price increases, the higher quintiles devote significantly more of their budgets than the lower quintiles. While this analysis awaits a more technically definitive treatment, the general picture is that the HST is at least somewhat less regressive than the RST it replaced.²⁴ And clearly for the lowest income households, the HST along with the credits has been a net *gain*.

Table 5: Expenditure Patterns by Income Quintile and Categories Grouped by BC HST Price Impact (percents of Canadian consumer expenditures)

Expenditure category (grouped by price impact)	Income quintile				
	1 st (lowest)	2 nd	3 rd	4 th	5 th (highest)
<i>Unchanged or small decline</i>	41.5	40.5	39.1	38.0	35.8
Food and beverage from stores	18.3	16.3	14.6	13.2	10.6
Utilities (water, gas, electric)	5.4	6.0	5.1	4.8	4.1
Clothing and footwear	4.6	5.2	5.8	6.2	6.7
Household goods & operation	10.8	10.9	11.1	11.1	11.6
Tuition, reading, education	2.4	2.1	2.5	2.7	2.8
<i>Small increase</i>	41.2	39.8	39.9	39.5	40.0
Rent/tenants' expenses	23.5	12.5	8.1	5.1	3.7
Homeowners' expenses	7.2	12.1	13.8	15.3	16.2
Private transport (car expense)	8.3	13.4	16.3	17.5	18.3
Public transport (inc. airplane)	2.2	1.8	1.7	1.6	1.8
<i>Larger increase</i>	17.4	19.6	20.8	22.6	24.4
Food and drink at restaurants	2.6	3.3	3.7	4.1	4.6
Health and personal care	5.1	6.0	5.2	4.9	4.4
Recreational/sports services	5.5	6.7	8.1	9.9	12.1
Alcohol and tobacco	4.2	3.6	3.8	3.7	3.3
<i>All items</i>	100.0	100.0		100.0	100.0

Source and notes: Statistics Canada, special tabulation of the 2001 Survey Household Spending, as reported in Chiru (2005, p. 7); grouping of categories by HST price impact in BC was done by the author of the present study based on anticipated relative long-run effects.

²³ One category aggregates alcohol and tobacco products; for the BC reform alcohol prices were insulated from change by adjustments to the provincial price mark-ups, and the entire change was due to new tax on tobacco products.

²⁴ This conclusion must be tempered by the somewhat higher overall gross amounts collected by the HST and the fact that spending as a proportion of income declines with higher incomes; this aspect would be fully addressed by my proposal to cut BC's HST rate by 1 percentage point. Also, note that my discussion does not consider the compensatory effects on lower-income households of other BC tax measures that accompanied its HST: the BC HST credits of up to \$230 per person and the increase in the basic personal amount for BC income tax to \$11,000.

Cut the HST Rate 1 Percentage Point

A simple and direct way to offset the HST's impact on consumers' pocketbooks would be to reduce the BC portion of the tax. Trimming that rate by one percentage point, to bring BC's total HST rate down to 11 percent, would achieve that goal.²⁵ It would reduce the CPI for BC consumers by more than 0.5 of one percent,²⁶ near the size needed to offset the estimated 0.6 of one percent CPI impact of the HST. Combined with my next proposal to eliminate the BC tax on private sales of used cars, this rate cut would insulate the average consumer—that is, irrespective of income, any consumer who purchases the typical basket of goods and services—from the full impact of the HST. This rate cut would also fully address any concerns that the HST increases regressivity. The cost to the BC treasury of cutting the HST rate by one percent would be about \$800 million per year, or about 2 percent of the entire provincial budget.²⁷ One political actor mooted the possibility of cutting the HST rate by two percentage points, which my estimate suggests would be double the relief needed to compensate BC consumers (Fowlie 2010). Any cut in BC's HST rate would require negotiation with the federal government since it would depart from the federal-BC harmonization agreement, but the feds would most likely agree because of their long and strong interest in getting the provincial sales taxes harmonized.

Eliminate BC Tax on Private Car Sales

Concurrent with introducing the HST, the BC government raised its tax rate on private sales of used cars from 7 percent to 12 percent to mirror the HST rate. The tax on private sales of automobiles is fully a BC levy outside of the HST, as such sales were never GST-taxable; it is called a “transfer tax” rather than a sales tax. This tax is forecast to generate \$171 million for the BC treasury in fiscal 2011-12 (BC Ministry of Finance 2010, p. 18),²⁸ and 5/12 of that sum or about \$70 annually is attributable to the increased tax rate. The BC government justified this change in tax rate as needed to provide “... comparable treatment between the private sale of vehicles, boats and aircraft and the sale of these same goods by HST registered businesses. It is also consistent with all other HST provinces as they also tax the private sale of vehicles, boats and aircraft at their HST rate of 13 percent or higher” (BC Ministry of Finance 2010, p. 88).

²⁵ Such a rate cut was first proposed in Kesselman (2010b, 2010c); a *Vancouver Sun* (2010) editorial concluded that “Kesselman’s proposal should be given serious consideration.”

²⁶ The HST rate cut would reduce the CPI by 0.46 of one percent for HST-taxable goods (their share of consumer expenditures is 46 percent as shown in Table 2) plus an additional small amount, say 0.06 of one percent for HST-tax-exempt goods (their share of consumer expenditures is 30 percent, but they bear a lower rate of embedded tax) plus an additional amount for the impact of the rate cut on HST on new home construction (not included in Table 2). If the total CPI impact fell slightly short of the requisite 0.6 of one percent, my proposed revocation of the transfer tax on private sales of used cars would more than fill any gap, as it constitutes more than 0.10 of one percent of total consumer expenditures.

²⁷ This revenue cost could be substantially reduced, if desired, by decreasing the BC HST credit and the BC HST rebate for new housing, both of which would be justified by the HST rate cut.

²⁸ This figure applies to total revenue from the tax on private sales of used vehicles, boats, and aircraft, but about 95 percent of the total derives from sales of road vehicles (including cars, trucks, vans, SUVs, and the like). All of my analysis applies equally to the tax on boats and aircraft as well as cars.

The imposition of tax on private sales of used cars is questionable policy for several reasons.²⁹ Any new car registered in BC must pay the 12 percent HST, and this tax is part of the car's value reflected in any subsequent resale of the car. Hence, the purchaser of the used car is already paying a share of the full tax, and imposing additional tax on the act of purchase inhibits efficient exchange of cars among consumers. Such a tax is also inconsistent with a value-added tax like the HST, which is supposed to apply only to new "value added" through productive economic activity. The federal GST and the federal portion of the HST do not tax the private sale of used cars, just as the HST does not tax the resale of previously owned homes. Moreover, the sale of used cars intermediated by dealers (whether via trade-in on a new car or via a used car dealer) is insulated from HST by the operation of special provisions, thus contradicting the government's claim of "comparable treatment."³⁰ In fact, BC's tax on the private sale of used cars is highly preferential to transacting sales via dealers.³¹ Eliminating the tax on private sales would also be favourable for equity, as most used cars are purchased by lower and moderate income households.³² It would further augment the proposed one percentage cut in the HST rate in making the tax more acceptable to the public.

Expand the Use of Tax-Inclusive Prices

The federal GST and HST in the harmonized provinces of Canada all use "tax-exclusive" pricing for the great majority of goods and services; that means posted and listed prices do not include the tax, which must be added to reach the full sale charge. This practice diverges from the "tax-inclusive" pricing used in virtually all of the other 140 countries with a similar value-added tax. The primary reason for this difference is that Canadian constitutional provisions assign to the provinces jurisdiction over trade practices, so that the federal government could not require tax-inclusive pricing when instituting the GST in 1991. Pros and cons are associated with each approach to stating the tax in pricing.³³ Tax-inclusive pricing is much easier for consumers in that they know the full price they will pay when viewing the item on a shelf or reading the price in an ad or catalogue. Tax-inclusive pricing is also less irritating to purchasers and causes less resistance to paying taxes. On the other hand, by making the tax less visible, tax-inclusive pricing has been described as reducing the accountability of government for the taxes it levies.

²⁹ Announcement of this BC tax increase attracted critical comment; see CBC News (2010). In fact, this tax increase was clearly stated in the BC budget, but citing the other HST provinces' application of a similar transfer tax does not make it good tax policy.

³⁰ If a used car is traded in as part of a new car purchase, the HST applies only to the difference between the new car price and the used car's trade-in value. If a used car dealer acquires a vehicle either directly from the owner or at auction, the dealer is given a "notional" input tax credit that offsets the tax charged on the car's value (other than repairs and mark-up) upon resale.

³¹ This observation casts an interesting light on the fact that the New Car Dealers Association of BC was one of the largest campaign contributors in the 2009 provincial election year, donating \$275,000 to the BC Liberal Party and \$10,000 to the BC New Democratic Party (Reynolds 2010).

³² Another benefit of abolishing this transfer tax is eliminating the efforts by sellers and buyers of used cars to understate the actual sale value (though if the declared sale price is below the book value of the vehicle, the purchaser may be required to document reasons for the lower value).

³³ For discussion and diverging views on the desirability of moving to tax-inclusive pricing, see Sherman (2009), Bird (2010), and Millar (2010).

Overall, the balance of pros and cons appears to support the further extension of tax-inclusive pricing both to ease matters for consumers and reduce irritations of the tax. The HST can be listed separately on the sale invoice or receipt, so that consumers are aware of the tax and it does not become invisible. Separate listing of the HST also facilitates claims for input tax credits by business purchasers of the good or service. Tax-inclusive pricing is the standard practice for personal income taxes; for example, a job posting states “\$15 per hour” or “\$40,000 per year” as the pay and not the net-of-tax pay, and the taxes withheld are shown on the periodic pay stub to make them visible. Tax-inclusive pricing is already used for GST and HST with a few items such as taxi fares, day parking fees, and gasoline and by a few vendors at their option such as fast food stalls.

BC has the legal jurisdiction to require tax-inclusive pricing in its HST in many areas, and natural places to begin would be items that are purchased frequently and items most prone to evasion by vendor-customer bargaining.³⁴ Consumers can encounter the HST multiple times a day when purchasing their morning coffee, lunch at a food court, an afternoon snack, perhaps a drink after work, and an occasional restaurant dinner. With tax-exclusive pricing, the HST becomes more an irritant than a burden. As one analyst has observed, “Taxes are added at the cash register on every purchase, and consumer dislike of (and political opposition to) the GST and HST is due primarily to this high visibility” (Sherman 2009, p. 839). With tax-inclusive pricing required, all purveyors of prepared foods would be operating on a level playing field. Another area conducive to tax-inclusive pricing would be maintenance and repair services to homeowners, which were newly added to BC taxation with the HST. This change might partially reduce the incentive for suppliers and homeowners to evade the HST, since the bargaining could no longer simply specify a “no-HST” price but would have to explicitly deal with a price concession for a cash sale.

Over time BC could extend tax-inclusive pricing to a wider range of HST-taxable goods and services, as the public became accustomed to the practice. However, some types of items that are advertised and sold nationally could raise problems with tax-inclusive pricing, but these issues are not significant for the proposed areas of prepared foods and services to homeowners, which are mostly local in supply. National ads by restaurant chains could be allowed to state prices “plus applicable taxes,” but their menus in BC outlets would need to list tax-inclusive prices. Moreover, some sales of goods and services are subject to federal jurisdiction over trade practices as they involve inter-provincial sales or federally regulated industries such as finance, airlines, and telecom; this issue does not arise with the items proposed for initial price-inclusive pricing by BC. While some observers might object that tax-inclusive pricing would be an attempt to “conceal” the HST from the public, purchasers would still see the HST on sales receipts. HST with tax-inclusive pricing would be far more visible than the 48 percent of revenues that were completely hidden from consumers under BC's previous RST.

Concluding Thoughts

That much of the BC public feel the switch from RST to HST imposes a large burden on their finances should not be a surprise. People have seen a few goods and many services, all

³⁴ Tax-inclusive pricing for BC was suggested by Lee (2009 updated); Kesselman (2010a) suggested that BC initiate tax-inclusive pricing with restaurant meals and other prepared foods.

previously taxed only at the GST rate of 5 percent, added to the roster of BC taxable items at an additional 7 percent. Commonly ignored is the fact that almost all goods were already taxable under the BC RST and that all goods and services not taxed under the GST also remained not taxed under the BC portion of the HST. Moreover, there is little understanding that items formerly bearing provincial tax at a nominal rate of 7 percent actually had higher ETRs and that items formerly exempt had positive ETRs. Many of those formerly tax-exempt items became zero-rated under the HST, which reduced their ETRs to zero. And items formerly taxable at ETRs exceeding 7 percent had the BC part of their HST rates reduced to a true 7 percent. When told that businesses would pass through their tax savings from the HST to the benefit of consumers, much of the public dismissed the claim as wishful economic theory. Now with half a year of experience under BC's HST, this study is able to produce direct measures of the actual price impact on consumers and thus an implicit measure of pass-through.

Impact on Households

My examination of BC's experience since instituting the HST in mid-2010 shows that the impact on consumers has been at the lower end of any forecasts and far lower than the greatly exaggerated claims of many critics. At just about 0.6 of one percent, this increase in the consumer price index for British Columbians is like paying one extra dollar with the HST in place for every 165 dollars spent in total on goods and services. This small impact reflects very large pass-through of the business tax savings to consumers from harmonization even after half a year. It will be interesting to repeat the analysis after another half year, with a full year of price statistics available; if anything, the economic operation of the HST would suggest an even lower net impact on consumers after more time is allowed for adjustments that flow through the business tax savings. In addition, consumers may over time tend to substitute away from those goods and services that have become more costly with the HST, further moderating the prices of those items.

If one takes the estimated 0.6 of one percent price impact as equally valid on average at all income levels, the implied impacts on various types of households can be computed. Table 6 presents illustrative cases of single persons and couples at selected income levels; cases where they would receive any BC HST credits distinguish between households with no kids (NK) and those with two children (2K). For each case, a figure is deducted for income tax and social insurance premiums to reach disposable income, an assumed amount is deducted for savings (net of the income tax benefit) to reach a spending figure, and the final column shows the net change in burden due to the harmonization with an offset for the BC HST credit for eligible households. The figures in Table 6 are meant to illustrate general patterns rather than precise outcomes. Both singles and families at the lowest incomes are actually net beneficiaries of the HST.³⁵ Because a household's spending comes after deducting a progressive income tax and because savings rise disproportionately with income, the HST impact is regressive across incomes apart from the lowest. However, this regressivity is innate to any indirect consumption tax, and as explained earlier the HST is likely less regressive than the RST it replaced. The HST never takes as much as 0.5 of one percent of any household's gross income.

³⁵ The gains for lower-income seniors have been even larger than shown in Table 6, since their Old Age Security and Guaranteed Income Supplement payments are indexed for inflation, and the national CPI has increased by about half of the average HST-related increases in BC and Ontario.

Table 6: Net Impact of HST on Households of Various Types, \$ Per Annum

Household type	Gross income	Disposable inc.	Expenditures	HST impact
Single NK	15,000	13,800	13,800	-150
Single NK	30,000	24,800	22,500	140
Single NK	60,000	45,900	43,000	260
Single NK	100,000	72,300	68,000	410
Single 2K	20,000	18,800	18,800	-577
Single 2K	30,000	27,000	27,000	-330
Single 2K	40,000	34,300	33,000	110
Single +K	60,000	48,000	45,000	270
Single +K	100,000	74,400	70,000	420
Couple NK	25,000	23,300	23,300	-320
Couple 2K	25,000	23,300	23,300	-780
Couple 2K	35,000	31,400	31,000	-330
Couple	50,000	42,500	40,000	240
Couple	80,000	63,800	60,000	360
Couple	120,000	91,900	85,000	510
Couple	200,000	144,000	135,000	810

Sources and notes: Computed by author based on the following assumptions (numbers rounded).

All income is assumed to be fully taxable labour earnings; for cases involving couples, earnings are assumed to be split 40:60 between the spouses; and National Child Benefits are disregarded for households with children.

Disposable income is gross income minus federal and personal income tax and employee contributions for Canada Pension Plan and Employment Insurance based on the Canada Revenue Agency online payroll deduction calculator for BC residents for 2011: <http://www.cra-arc.gc.ca/esrvc-srvce/tx/bsnss/pdoc-eng.html> plus allowance of an equivalent-to married basic personal amount for one child with a single parent.

Expenditures is disposable income minus an assumed level of savings that is zero at the lowest incomes and increases with income; savings are assumed to be tax deductible (RRSP or employee RPP contributions) and the amount is net of the implied tax savings (that is, the tax deduction for savings is not shown in disposable income but enters as an increase in expenditures).

NK means "no kids"; 2K means "two kids"; and +K means "one or more kids"

The BC HST credits have been calculated as \$230 per family member minus 4 percent of net income (here assumed to equal gross income) exceeding a threshold of \$20,000 for singles and \$25,000 for families of two or more; they replaced the \$75 per adult maximum BC sales tax credit that pre-existed the HST; computations do not include the harmonization measure of raising the basic personal amount for BC income tax with savings of up to \$80 for single individuals and up to \$160 for single parents and for couples.

Broadening the Tax Base

Harmonization has extended BC sales tax coverage particularly to additional services purchased by consumers. Most goods taxed under the HST were already taxed by the RST, and eliminating their embedded taxes results in lower effective tax rates on those goods. The broadening of BC's consumption tax base is desirable to provide a more balanced taxation of a fuller range of consumer expenditures. While the initial HST reform was revenue neutral for the government, over the long run it provides a more stable and robust base for financing provincial public services. Spending on services is more stable than spending on durable goods with the ups and downs of the business cycle. Spending on services has also shown a long and steady increase relative to spending on goods. In 1982 consumer purchases of services exceeded purchases of goods for the first time in BC, and in 2009 services accounted for 61.6 percent of total expenditures (Statistics Canada 2010).

Returning to the Previous Sales Tax

Abolishing BC's HST and returning to the previous regime of a separate BC retail sales tax and the federal GST would also have consequences for consumer-taxpayers. At first blush the only changes would be a reduction in the cost of living—by 0.6 of one percent based on estimates provided here—and elimination of the BC HST credits for lower income households.³⁶ However, this ignores several other important aspects of getting rid of the HST that impact households as consumers and/or taxpayers. First is the loss of the \$1.6 billion that the federal government has provided BC to assist the harmonization transition. That revenue loss could be compensated in various ways, but to illustrate its size, it is equivalent to raising BC's revived RST by 2 percentage points to 9 percent for one year. Second, the provincial government would need to reinstitute its own sales tax collection agency at a cost of about \$30 million per year to taxpayers; another \$50 million per year of taxpayer funds would be needed to compensate vendors for collecting the RST.³⁷ Third, businesses would need to undergo a disruptive and costly transition back to the RST as well as increased annual tax compliance costs of about \$150 million per year; these costs would undoubtedly be passed through to consumers as higher prices, partially offsetting the savings they garner from abolishing the HST.

The major cost of abolishing the HST and returning BC to its former RST would not be the increased administrative or compliance burdens nor even the \$1.6 billion repayment by BC taxpayers to the federal government. Rather, it would be the loss of investment and jobs that the HST will, if retained, generate for British Columbians over the balance of the decade. One study estimated the HST gains for BC at \$11.5 billion of new investment and 113,000 new jobs through 2020 (Mintz 2010). Another study estimated that the Atlantic provinces' 1997 harmonization significantly increased machinery and equipment investment—the forms that most improve productivity (Smart and Bird 2009b). Yet another study concluded that the most effective policy to address the BC economy's

³⁶ Most likely the BC HST credits would revert to their lower values (maximum of \$75 per adult per year with none for children and targeted to the very lowest incomes) under the sales tax credits that accompanied BC'S RST.

³⁷ The province paid vendors a commission of 6.6 percent of their RST collected to a maximum of \$2376 per vendor annually as partial compensation for their compliance costs.

lagging investment and productivity performance was sales tax harmonization (Centre for the Study of Living Standards 2008). The additional taxes generated on the economic activity associated with the HST will contribute to the provincial treasury, thus relieving taxpayers or alternatively financing enhanced public services.

Bottom Line for HST

In short, while BC's HST does entail burdens for households except at lower incomes, this study has found those burdens to be far smaller than commonly believed. Most people keep a rough count of what they are paying in HST, but they may forget how much they were paying under the previous RST, and they never were aware of the enormous amount of embedded RST that was hidden in the prices of their purchases. Based on the estimate presented here, the pass-through of the business tax savings under the HST is very high, so that the remaining shift of tax burden to consumers is primarily the boost given to export-oriented industries plus the cost of providing HST compensation to lower income households and all income tax payers. Moreover, even those modest burdens could be eliminated by cutting the HST rate one percent and abolishing the transfer tax on private car sales. Public acceptance of the HST could be further augmented by moving to tax-inclusive pricing for restaurant and prepared foods and selected other items newly covered by the tax. The prospective economic gains from retaining the HST and avoiding a return to the economically damaging RST warrant reforms that will enable BC to reap the significant long-term benefits of harmonization.

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