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Prospects for Integrated Carbon Taxes in Canada: Lessons From Federal-Provincial Tax Coordination

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PROSPECTS FOR INTEGRATED CARBON TAXES IN CANADA:

LESSONS FROM FEDERAL-PROVINICAL TAX COORDINATION

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Abstract

The global nature of the climate change externality calls for a global response but so far none has emerged. Instead, climate policies are being implemented by subnational and national governments, resulting in a fragmented policy landscape at the national level. This is certainly the case in Canada. While this outcome is not particularly surprising, from an economics perspective, it is arguably more costly, less efficient, and less effective at achieving emissions reductions than a more harmonized approach. Is this outcome the unavoidable price of Canadian federalism? Is a more harmonized carbon tax approach feasible? This paper considers Canada's experience with three major taxes, jointly occupied by federal and provincial governments. Despite its highly decentralized structure, Canada has a history of tax harmonization and coordination arrangements for these taxes. By examining the evolution of these arrangements, the paper offers insights on the prospects of adopting a more harmonized carbon tax approach to address climate change.

Keywords: carbon taxes, tax coordination and harmonization, Canada

JEL Codes: H23, H77, Q58

Introduction

The global nature of the climate change externality calls for a global response but so far none has emerged. Instead, climate policies are being implemented by subnational and national governments, resulting in a fragmented policy landscape at the national level. This is certainly the case for Canada. Provincial government initiatives include a broad-based carbon tax in British Columbia (BC), a cap and trade scheme in Quebec, a regulatory approach in Alberta, and the elimination of coal-fired thermal electricity generation in Ontario. At the national level, the federal government has been pursuing a sector-by-sector, regulatory approach.

Canada is a decentralized federation; provincial governments have significant taxing powers, co-occupy most major tax fields, and share responsibility for the environment with the federal government. So, while the current climate policy outcome in Canada is not particularly surprising, from an economics perspective it is arguably more costly, less efficient, and less effective at achieving emissions reductions than a more harmonized, carbon pricing approach. Is the current patchwork approach the unavoidable price of Canada's particular brand of federalism?

To address this question, this paper considers Canada's experience with three major taxes - broad-based sales taxes, personal income taxes and corporate income taxes. It is true that a carbon tax is fundamentally different than income and sales taxes. The former is used to address a negative externality while the latter are used primarily for revenue generation. But there is an interesting parallel between climate policy and federal-provincial income and sales taxes. In particular, the current climate policy landscape is reminiscent of the "tax jungle" that characterized Canada in the early 1930s. Sales and income taxes, like climate policy, were once characterized as decentralized, uncoordinated, inefficient, and costly to administer. And yet today, the two levels of governments co-occupy all three tax fields and tax agreements are used to govern the extent of federal-provincial tax harmonization and coordination. A deeper understanding of the process of tax harmonization and coordination for these taxes will be useful for thinking about climate policy in a federation and the prospects of adopting a more harmonized carbon tax approach in Canada.[1]

The paper begins with a brief overview of the current state of carbon taxes, and climate policy more generally, in Canada at the federal and provincial government levels. The evolution of Canada's personal income, corporate income, and general sales tax systems is reviewed in section 3, focusing on

[1] Provinces and the federal government could both use a regulatory approach to reduce emissions. Canada's experience with coordinated environmental regulation is, however, quite limited. Hence, this paper focuses on lessons from federal-provincial tax coordination.

the issues of tax sharing, harmonization and tax collection. Section 4 identifies major factors that have contributed to discrete, rather than incremental, shifts in the degree of harmonization of these respective tax systems. Finally, section 5 considers what we have learned about the development of federal-provincial fiscal arrangements relating to these taxes and, with these lessons in hand, contemplates the prospects for carbon taxes in Canada.

The Current State of Federal-Provincial Climate Policy

From an economic efficiency perspective, the externality from GHG emissions can be addressed by imposing a carbon tax (or introducing a cap and permit trading system). Efficiency requires that all emissions are covered and a uniform price on emissions is imposed. If carbon prices differ, emissions reductions may occur but they need not be achieved in the cheapest manner. As well, with uneven carbon prices, emissions may fall in the high price jurisdiction but increase in the low price jurisdiction, as a result of a problem known as carbon leakage. Regulation is an alternative to a carbon tax but it is generally considered to be a more expensive and less effective option.

So, what does climate policy, particularly carbon pricing policy, look like in Canada? To date, two provinces have implemented carbon taxes. BC's broad-based carbon tax was introduced in 2008. The $30 tax per tonne of carbon emissions is expected to generate about $1.2 billion in revenues for 2016/17.[2] Because the tax is intended to be revenue neutral, the BC government offsets the carbon tax revenues with reductions in other taxes. Quebec had a more modest carbon tax, called a Green Fund duty, in place from 2008 to 2014. The duty (equal to about $3 per tonne of CO_2) was levied on fuel distributors with the tax rate set to generate approximately $200 million annually.[3] In 2013, Quebec became the first province to implement a cap and trade scheme. The permit trading system includes both a price ceiling (between $40 and $50) and a price floor of $10.75 per tonne and auction revenues are earmarked for the province's Green Fund. In 2013, auctioned permits sold at the floor price.

Alberta implemented its *Specified Gas Emitters Regulation* (SGER) in 2007. The approach requires large industrial emitters to reduce their emissions intensity by 12% relative to a baseline level. Emitters have several compliance options including reducing emissions intensity by the specified amounts, making contributions equal to $15 per tonne of CO_2 to a technology fund, and buying offsets. Read (2014) estimates that just over half of Alberta's emissions reduction obligation since 2007 has been

[2] British Columbia Ministry of Finance (2014).

[3] Rivers and Schaufele (2012), page 1.

achieved using technology fund contributions. In contrast to a carbon tax, the implicit price on emissions reductions is variable under the SGER, depending on which compliance option is used.

The carbon tax in BC, and Quebec's cap and trade system, cover about 77% of emissions in each province.[4] This means that roughly 15% of Canada's emissions are covered by some form of broad-based carbon pricing. If emissions covered under Alberta's intensity-based regulations are also included (about 50% of emissions in that province), a maximum of about 33% of Canada's emissions are covered by some form of carbon pricing.[5] Note that the implied price of emissions reductions varies by province and by emissions source.

Until quite recently, Ontario's actions were limited to the phase out of coal-fired thermal electricity generation in 2014. Following the release of two discussion papers exploring carbon pricing options, Premier Wynne announced in 2015 that Ontario would adopt a cap and trade carbon pricing system. Although the details of the provincial scheme have not yet been revealed, the 2013 discussion paper indicated that the province intended to seek an equivalency agreement with the federal government.[6] Equivalency agreements are bilateral agreements between the federal government and a provincial government that aim to coordinate environmental actions and avoid duplication in regulation.[7]

A cursory look at the rest of the provinces suggests that most lag behind BC and Quebec in terms of the stringency and scope of their policies. Actions are often limited to coal-fired electricity generation only. Nova Scotia has adopted a regulatory approach (and an equivalency agreement with the federal government) for coal-fired electricity generation. Saskatchewan is working on the development of a regulatory approach similar to Alberta's but emissions coverage under the proposed regulations is low. New Brunswick has a renewable portfolio standard for electricity generation, with a goal of 40% generation from non-emitting electricity by 2020. There has been limited action in Newfoundland and Labrador and in Manitoba.[8]

The federal government has been pursuing a sector-by-sector, regulatory approach. The specifics for oil and gas and other large emitters are not yet finalized and progress appears to be stalled. As a result, progress on equivalency agreements with the provinces is also uncertain.

Three features of the Canadian climate policy landscape stand out. First, there are significant differences in the carbon price, across emission source and across province. Second, there is considerable

[4] Elgie and McClay (2013), page 1 and Purdon, Houle and Lachapelle (2014), page 16.
[5] This is at best a maximum. See Leach (2012), page 882.
[6] Ontario Ministry of the Environment (2013), page 4.
[7] Equivalency agreements can be thought of as the "regulatory equivalent" of the federal-provincial tax collection agreements discussed in this paper.
[8] Sawyer and Gass (2014) summarize recent climate policy developments in Canada. Earlier contributions include Snoddon and Wigle (2009), Pembina Institute (2009), David Sukuki Foundation (2012), and Sawyer, Beugin and Gass (2013).

variation in approach. Some provinces and the federal government have opted for a regulatory approach based on emission-intensity while a few provinces have instead opted for a broad-based carbon pricing policy. And finally, few mechanisms to harmonize climate policies across provinces or between the federal and provincial governments exist. Equivalency agreements in the context of GHG emissions regulation is one possible mechanism for achieving harmonization but so far Canada's experience with this approach is quite limited.

Canada is a long way off from having a cost-effective, broad-based carbon pricing policy in place. Federal-provincial income and sales tax systems confronted similar challenges in the past but today these taxes are all harmonized to a certain extent. The next section examines Canada's experience with managing income and sales tax harmonization in a decentralized federal structure to discover how the problems arising from decentralization and co-occupancy were tackled. This knowledge can help determine whether a broad-based carbon tax is viable for Canada or whether the decentralized nature of the Canadian federation means that climate policy will remain fragmented and uncoordinated.

Tax Harmonization and Coordination in Canada

This review focuses on issues relating to tax sharing, harmonization and tax collection for personal and corporate income taxes and broad-based sales taxes. It is useful however to first consider the allocation of taxing powers as defined in the constitution and the economic arguments in favour of (or against) greater harmonization and coordination of the three taxes under consideration.

The 1867 British North America Act (and the subsequent Constitution Act, 1982) assigns broad taxing powers to the federal government while restricting provincial governments to direct taxes.[9] This constitutional limitation on provincial governments' powers of taxation has not proven to be restrictive. In fact, provincial governments have developed significant taxing powers and co-occupy most major tax fields. The constitutionally-assigned expenditure responsibilities of the provinces have also proven to be greater than expected. Today, the Canadian federation is considered highly decentralized with a combined provincial plus local government share of revenue, and expenditure, of 47.5% and 68% respectively.[10]

According to the fiscal federalism literature, greater decentralization can improve efficiency in the allocation of public expenditures, can improve accountability, and can lead to greater policy experimentation and learning. But greater revenue decentralization can also lead to economic inefficiencies and additional tax administration and compliance costs.[11]

[9] A direct tax is defined as a tax that is imposed on the person who is intended to pay it.
[10] See Treff and Ort (2013), tables A.3 and A.5.
[11] This literature is large. See, for example, Tiebout (1956), Oates (2005), and Gemmell et. al. (2013).

High levels of revenue decentralization can give rise to inefficiencies if provincial fiscal decisions distort the interprovincial flow of goods, services and factors of production. Differences in provincial corporate tax burdens, for example, can discourage investment and distort the allocation of capital and investment. Without harmonization, provinces may have an incentive to engage in tax competition and "beggar thy neighbour" policies with potentially negative consequences for tax revenue and the ability to finance desired public expenditures.[12] Differences in provincial income tax systems can also distort the flow of labour, capital and savings across provinces. And distortions may arise in response to provincial differences in broad-based sales tax rates, especially for jurisdictions with "close" low tax neighbours.[13]

Revenue decentralization contributes to higher administration and taxpayer compliance costs. For example, Plamondon (1998) estimated that about 40% of Quebec's PIT administrative costs are attributable to having its own tax collection authority and Erard and Vaillancourt (1993) found that compliance costs would be substantially higher under a separate Ontario PIT system. More recently, the Ontario government estimated that moving to centralized CIT collection and administration would yield significant compliance and administration savings.[14] Additional considerations come into play when federal and provincial government co-occupy or share a tax base. If provincial governments fail to take into account the effects of their tax rate choices on the federal government's revenues, a vertical externality can arise.

Personal Income Taxes (PIT)

Early in Canada's history, the federal government and some provinces were imposing personal income taxes that were, for the most part, decentralized and uncoordinated. In 1917, the federal government introduced its personal income tax as a way of financing its war efforts. British Columbia and Prince Edward Island were the only *provincial* governments with a personal income tax in place at that time. In the 1930s, some effort was made to coordinate personal income taxation collection.[15] However, significant differences in definitions of taxable income and rate structures between the federal and provincial governments and, in some cases, municipalities existed, leading some to characterize this period in Canada's history as a "tax jungle".[16] By the time WWII was underway, most provinces had either a personal or corporate income tax, or both, in place. The Dominion-Provincial conferences on

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[12] McKenzie (2006) reviews the recent theoretical and empirical literature on tax competition, with application to Canada.
[13] See Mintz and Ip (1992).
[14] Ontario Ministry of Finance (2006).
[15] At this time, the federal government had PIT collection agreements with Ontario, PEI, Quebec, and Manitoba. The federal government collected provincial PITs for a fee. The taxpayer in an agreement province filled out a single form and wrote one cheque to the federal government. See Smith (1998), page 14.
[16] Smith (1998), page 14 and Courchene and Stewart (1991), page 267.

fiscal affairs held during this period focused on issues of joint occupation, tax overlap, administrative duplication, centralized collection and tax sharing, and allocation of the tax base. These issues continued to challenge federal-provincial fiscal relations for decades.

Personal income taxes have evolved considerably from the decentralized and uncoordinated system in place in the 1930s. In 1941, personal income taxes were completely centralized at the federal level and uniform across provinces, marking a dramatic change in PIT taxation in Canada. In 1962, joint occupation of the PIT system resumed and, over the next several decades, the PIT system became increasingly more decentralized. However, some harmonizing elements, and the system of centralized administration and collection, for the most part, remained intact.

The changes in 1941 were precipitated by WWII and the federal government's need for additional revenues to finance its war effort. Provinces vacated the income tax fields so as to provide tax room for the federal government. In exchange, the federal government made payments to the provinces. All provinces entered into these agreements in 1941. Ontario withdrew in 1947 but did not reinstate its own PIT during this period. In 1952, it rejoined the agreements. Quebec also withdrew in 1947 and introduced its own PIT in 1954. All other provinces (including Newfoundland in 1949) signed tax rental agreements, receiving a payment in exchange for not levying their own PIT.

Courchene and Stewart (1991) identify two important features distinguishing the early years of the tax rental period (from 1941 to 1957) from the later years. First, the federal government was the sole occupant in this tax field in all provinces except Quebec. Second, the rental payments to the provinces were not based on personal income tax revenue collected within the province. In the later years (from 1957 to 1961), rental payments were set equal to 10% of federal PIT revenues collected in the province. By doing so, the notion of federal-provincial PIT tax sharing was formally introduced. Overall, this period can be characterized as one of considerable uniformity (and harmonization) with respect to personal income taxes.

In 1962, the rental agreements were replaced with tax collection agreements (TCA). Under the TCAs, the agreement provinces would levy a provincial personal income tax. Key harmonization elements were introduced at this time: all provinces used the same rules for allocating income across provinces; provincial tax rates were levied on the basic federal tax (tax-on-tax approach); the federal government decided the marginal tax rates and brackets, deductions, and exemptions; and the federal government collected both federal and provincial PITs for agreement provinces, free of charge. All provinces except Quebec signed the agreements. Although Quebec had its own PIT system, it did adopt the same rule as in the TCA provinces for allocating income across provinces which helped to ensure the tax base harmonization across provinces. The federal government made "room" for the new provincial taxes by reducing its own tax rates over a number of years.

Courchene and Stewart (1991) describe the PIT system in the first decade with the TCAs as "de-concentrated" rather than decentralized, combining harmonization with devolution of tax room (and increased tax shares) to the provinces.[17] A significant degree of harmonization across provinces (and between the federal and provincial government systems) existed but provinces regained some flexibility in that they could now set their own PIT rates.

In response to provinces' increasing demands for greater flexibility, the first (of a very long list) of provincial measures were added to the TCAs beginning in 1972. These measures included provincial property tax credits in Ontario and Manitoba, a BC surtax, a venture capital tax credit and flat tax in Saskatchewan, and a New Brunswick small business tax credit.[18] With these changes, the provinces gained even more flexibility but the harmonization achieved by the TCAs in its purest form was eroded. Revenue decentralization continued when in 1999 the federal government modified the TCAs so that provinces would levy their PIT tax rates on taxable income rather than on federal basic tax. Under the new arrangements, provinces determined their own tax brackets and tax rates and developed their own tax credits, low-income tax reductions and surtaxes. Provinces' applied their tax rates to federally-defined taxable income. The federal government would continue to collect PIT revenues for all provinces except Quebec, free of charge. This system remains in place today.

Compared to the tax rental period and the early years of the TCA era, Canada's personal income tax system is now significantly more decentralized and less harmonized in many respects. [19] Importantly, the federal government and the provinces continue to use a common tax base and rule for allocating taxable income across provinces. Provinces have gained considerable flexibility in their ability to design their PIT systems to satisfy their own objectives. At the same time, provinces continue to reap the benefits of centralized administration and collection.

Corporate Income Taxes

In 1917, the federal government introduced a corporate income tax (CIT) along with its PIT. By 1930, the federal government, BC, and PEI taxed corporate profits. All provinces had entered this field by

[17] Courchene and Stewart, page 289.
[18] For a detailed listing see Courchene and Stewart (1991), page 276.
[19] Several reviews of the personal income taxation system in Canada are available, including Boadway and Kitchen (1980), Courchene and Stewart (1991), Mintz and Ip (1992), Smith (1998), Boadway and Kitchen (1999), and Vaillancourt and Guimond (2013). Some studies, like Boadway and Kitchen (1999), examine PIT design and structure while others, such as Courchene and Stewart (1991) focus on developments relating to decentralization and harmonization. Smith (1998) details the extensive process of federal-provincial consultation and political dialogue that accompanied the development of the federal-provincial income tax system over the period from 1930 to 1977.

1940.[20] At this time, the provinces and the federal government jointly occupied the corporate income tax field, although the taxes were not formally coordinated or harmonized. In the 1930s, the federal government offered to collect and share with the provinces a uniform CIT as a means of dealing with concerns arising from joint occupation. The proposal died when Quebec refused it.[21] Smith (1998) indicates that some coordination efforts emerged by the end of the 1930s but were limited to interprovincial coordination rather than federal-provincial coordination. In 1939, Manitoba and PEI entered into a tax collection agreement with the federal government to collect provincial corporate income taxes in their respective provinces.

In many respects, federal-provincial corporate income taxes have evolved in a similar fashion to personal income taxes – largely decentralized and uncoordinated between 1917 and 1940, centralized at the federal level and uniform from 1941 to 1947, and beginning in 1947, greater decentralization. Some harmonization elements continued, like the rule for allocating income across provinces and the common tax base. And there was still a high degree of centralized administration and collection, albeit not as extensive as was the case for the PIT.

The CIT tax rental agreements, like those for the PIT, first initiated in 1941 generally had a five year term. From 1941 to 1946, the federal government was the sole occupant of the corporate income tax field. When these agreements expired, only seven provinces signed the new CIT agreements covering the period from 1947 to 1952. These provinces agreed to impose a 5% tax on federally-defined taxable income and agreed to the rules for allocating corporate income across provinces. The federal government collected the CIT revenues and returned them to the agreement provinces. Provincial CIT rates were levied on income, not on basic federal tax as was the case with PIT. Two provinces, Quebec and Ontario, did not sign the new agreements. In 1947, Quebec introduced and collected its own CIT at an initial rate of 7%. It has continued to operate its own CIT since then. Ontario was in and out of the agreements over the rental period. In 1947, the province did not sign an agreement, choosing instead to re-establish its CIT at a rate of 7%. The province then re-joined the rental agreements from 1952 to 1957 but did not sign an agreement for the period, from 1957 to 1961.

While the rules used for allocating corporate income differed slightly between Ontario and Quebec, there was significant variation in the rules between agreement and non-agreement provinces in the early years of the tax rental agreements. And the tax rate differential between agreement and non-agreement provinces created potential distortions to capital and investment across provinces. Among the agreement provinces, there was however significant harmonization in terms of tax base, rates and the

[20] Perry (1997), page 24. Manitoba imposed it corporate profits tax in 1930. Alberta, Ontario, Quebec and Saskatchewan entered the CIT field in 1932 [Perry (1961), page 23]
[21] Smith (1998), pages 12-13.

centralized collection of revenues by the federal government.[22] And in the later years, from 1952 to 1957, harmonization increased more so when Ontario joined and the tax differential between agreement and non-agreement provinces disappeared.

In 1962, the CIT tax collection agreements replaced the rental agreements. All provinces except Quebec and Ontario signed agreements. Alberta had a TCA with the federal government from 1962 to 1980 but withdrew in 1981. And, after 50 years of administering and collecting its own CIT, in 2006 Ontario signed a CIT tax collection agreement with the federal government to take effect in 2009.

The TCAs have been periodically renewed but the main elements still include the following: all provinces (including Quebec who did not sign the TCAs) use the same rules for allocating income across provinces; provincial CIT rates are levied on federally-defined taxable income; and the federal government collects both federal and provincial CITs for agreement provinces, free of charge. Like the TCA for personal income taxes, the federal government initially made room for the provincial taxes by reducing its own CIT rates by specified amounts. Perry (1997) notes that because provincial tax rates had to be expressed as a percentage of federally-defined taxable income, provincial CIT legislation and regulations were closely aligned with the federal legislation. The TCAs for CIT continue to operate today.

Between 1980 and 2006, the CIT agreements covered all provinces but Alberta, Quebec and Ontario. However, these three provinces accounted for roughly three quarters of the corporate income tax base. In other words, most of CIT tax base fell outside of the harmonization agreements. However, Boadway and Watts (2000) argue that the CIT tax base in these provinces did not differ too much from the federal government's tax base. Together with the fact that these provinces also used the common rule for allocating the tax base across provinces, a significant amount of harmonization was nevertheless achieved. This harmonization would help mitigate against potential distortions and economic inefficiencies. But administration and collection costs would likely be higher given that Alberta, Ontario and Quebec were running their own CIT tax administrations and such a large fraction of the CIT tax base was in these provinces.

Boadway and Kitchen (1999) raised the possibility that the CIT system had the potential to become more rather than less fragmented over time if more provinces decided to set up their own CIT systems. But this scenario has not emerged. Competitive pressures and a more integrated global economy are forcing a significant number of provinces and the federal government to cut CIT tax rates; these same pressures also played a role in Ontario's decision to join the CIT tax collection agreements in 2006.

[22] Smith (1998), page 48.

Broad-based Sales Taxes

The evolution of tax harmonization and coordination for broad-based sales taxes differs from that of personal and corporate income taxes. The federal government first entered the sales tax field by levying a turnover tax, taxing all sales except those at the retail level, in 1920. This tax was replaced a few years later in 1924 with the manufacturers' sales tax (MST), a tax on the sale of manufactured goods. The MST remained in place until 1991. Provincial governments entered the retail sales tax (RST) field in the early 1930s. By 1967, all provinces except Alberta had a similar tax in place. These taxes were levied as "taxes on purchasers", with the seller acting as agent for the government and remitting the tax collected to the government (thus satisfying the definition of direct taxation).[23] Provincial RSTs have developed independently with some differences in rates, the range of goods and services taxed, and in exemptions; for a very long period of time there was little coordination or harmonization of these retail sales taxes.[24]

In 1991, the federal government replaced its MST with the Goods and Services Tax (GST) and, in doing so, extended federal government taxation into an area perceived historically as belonging to the provinces.[25] The GST is a broad based, value added tax on final consumption. It is applied at all stages of production and consumption but businesses can claim a refund or credit for taxes paid on input purchases, with some exceptions and exemptions. Since the federal MST applied at the manufacturer's level, differing amounts of tax were embedded in the final selling price of various goods and services. So, although the MST was largely invisible to final consumers, its existence and any changes to it had the potential to influence revenues from provincial RSTs. With the introduction of the GST, joint occupancy in the sales tax field expanded and became a lot more visible.

There were serious problems with the MST that motivated the federal government's decision to replace it with the GST. The tax base was narrow and the tax rate relatively high, creating a significant distortion between taxed and untaxed goods. During the 1980s, the tax rate was increased several times worsening this distortion. A serious drawback to the tax was that the purchases of some manufactured goods (used as inputs into the production of other manufactured goods) were taxed as were the sale of the resulting manufactured goods, resulting in a tax being imposed on a tax. The amount of tax embedded in the final selling price would therefore differ across manufactured goods in an unintentional and arbitrary way. Since investment goods were often taxed as business inputs, the MST discouraged investment. Finally, although manufactured goods for export were exempt from the MST, the MST paid on input

[23] Smith (1998), page 62, footnote 18.
[24] Mintz and Ip (1992) argue, however, that despite their independent development, provincial RSTs had more similarities than differences.
[25] Mintz and Ip (1992), page 100.

purchases was still embedded in the final export price, putting Canadian manufactured exports at a competitive disadvantage.

Provincial RST have similar problems to the MST. Relative to the GST, the RST tax base is narrower, with many different exemptions. Several business inputs are taxed under provincial RSTs. As with the MST, this acts as a deterrent to investment and can reduce the competitiveness of provincial exports.

Recognizing that the introduction of the GST would mean joint occupancy in a tax base that had primarily belonged to the provinces and that some degree of harmonization would be beneficial, the federal government originally proposed an integrated national sales tax (to replace provincial RSTs and the MST). Lack of support caused it to abandon this idea and to announce its intention in 1989 of moving forward with the GST. The GST reduced or eliminated many of the problems with the MST. The tax base was much broader and the tax rate lower. The invoice credit system for rebating the tax paid on business inputs avoided taxing investment and putting Canadian exports at a competitive disadvantage as occurred with the MST.

Since 1991, there has been a slow but considerable shift toward greater sales tax harmonization in Canada. A substantial fraction of consumption in Canada is now covered by a harmonized federal-provincial value added tax.[26] The harmonization process began in 1991 with Quebec replacing its retail sales tax with a provincial value-added tax that was somewhat harmonized with the federal GST.[27] In 1996, three provinces (Nova Scotia, New Brunswick and Newfoundland) agreed to replace their RSTs with a harmonized sales tax (the HST), an 8% provincial tax rate imposed on the same tax base as the federal government's GST.[28] The federal government collects the HST, free of charge. In 2010, Ontario and BC replaced their RSTs with an HST, at a provincial rate of 8% and 7% respectively, on roughly the same base as the GST. However, BC subsequently reversed its decision and reinstated its RST in 2013. Finally, Canada's smallest province, Prince Edward Island, adopted the HST in 2013.

[26] Given the five provinces with a harmonized sales tax as of 2012, roughly 67% of consumption in Canada is covered by a value added tax. See Smart (2012), page 2.
[27] Like the GST, the QST operated as a destination based value added tax using an invoice credit system for taxes paid on inputs. The tax base was similar but not identical to the GST and there were initially some administrative procedural differences. For an excellent review of the evolution of sales taxes in Canada, see Bird (2012).
[28] The HST consists of a federal plus a provincial tax component, both levied on (more or less) the same federally defined GST base. For example, the combined HST rate in Nova Scotia in 2014 is 15% - a 5% federal rate plus a 10% provincial rate.

Lessons from Federal-Provincial Tax Harmonization: Catalysts & Sweeteners

This section focuses on key factors that have contributed to discrete shifts in federal-provincial tax harmonization and coordination. Knowledge of these factors may lead to a better understanding of the prospects and possibilities for the development of greater harmonization and coordination of federal-provincial carbon pricing policy.

Three key lessons are discussed. First, moving from a fragmented to a more harmonized and coordinated tax regime is a lengthy and time–consuming process. The historical review demonstrates that the process for achieving greater (or less) harmonization and coordination of the three major taxes jointly occupied by the federal government and the provinces is generally slow and incremental, punctuated at times by more fundamental shifts and reforms. The second lesson is that major shifts and reforms in tax harmonization are often precipitated by a catalyst. A catalyst is an event or change in conditions that is beyond the immediate control of government and that provides an incentive to fundamentally change the status quo. The third lesson is that the process of harmonization and coordination is often facilitated by "sweeteners".[29] Sweeteners refer to incentives provided by the federal government to induce a change in the status quo.

Since the first lesson is evident from the historical review, we focus on the role of catalysts and sweeteners in this section.

Economic Catalysts: Wars, Recessions and Free Trade

Throughout Canada's history external or exogenous events have acted as catalysts for major changes in federal-provincial tax systems, providing an opportunity, or forcing a departure, from the status quo.

The combination of WWI, the depression, and WWII acted as a catalyst to shift federal-provincial income tax arrangements from decentralized with limited coordination to a fully centralized and uniform system in 1941 as the federal government sought to meet its considerable revenue needs. By becoming the sole occupant in the personal and corporate income tax fields, the federal government gained both primacy in the tax field and bargaining power. The new regime also meant that there was a separation of taxing and spending activities; provinces were spending (financed in part by transfers from the federal government) and the federal government was levying the taxes. This separation made most provinces reluctant to re-enter these tax fields directly with their own taxes even though they had a constitutional right to do so. Over the next 20 years, however, growing revenue demands on the provinces, and on the

[29] This term is borrowed from Courchene and Stewart (1991). They refer to sweeteners as the "…glue that keeps the tax collection agreements intact." [Courchene and Stewart (1991), page 290].

federal government, and the federal government's increasing dissatisfaction with the being seen as the sole "taxer", caused gradual adjustments in the rental system and the eventual switch to the tax collection agreements in 1962.

For the income tax fields, tax coordination and harmonization efforts have been the outcome of significant and lengthy negotiations between the federal and provincial governments with agreements in principle followed by federal legislation and bilateral agreements between the federal and provincial governments. With sales tax reform, after failed attempts to bring the provinces on board, the federal government proceeded unilaterally to introduce the GST and thus directly occupy the same tax field as the provinces without having negotiated a tax agreement in advance. Why has the tax coordination and harmonization experience been different for sales taxes?

The problems with the federal MST were well known; indeed various commissions over the period from the 1930s to the 1980s acknowledged these issues.[30] And yet, the MST was in place for over 60 years. The federal government's decision to scrap the MST clearly anticipated the increased competitive pressures that Canada was expecting to face with the signing of free trade agreements, first with the US (the Canada-United State Free Trade Agreement in 1986) and subsequently with Mexico and the US (the North American Free Trade Agreement in 1992).[31] Absent reform, the flaws of the MST would put Canada at an even greater competitive disadvantage. The prospect of freer trade and greater competition pushed the federal government to address the well-known economic deficiencies of the MST and introduce the GST (with or without the provinces on board).

Provincial RSTs suffer from problems similar to those with the MST. While six of the nine provinces with RSTs have now replaced them with the HST, with Ontario and PEI doing so only recently, the process of achieving greater harmonization and coordination of these sales taxes has taken a long time. The recession in 2007 acted as a catalyst, contributing to Ontario's and BC's decisions to harmonize with the GST. By 2010, the Ontario economy and the government's fiscal circumstances were continuing to suffer the effects of the 2007 recession. Eliminating the competitive disadvantage that came with its RTS now had greater appeal. Exports would no longer have various amounts of retail sales tax embedded in the final selling price. And by eliminating the RST and the associated tax on business inputs, Ontario could provide additional stimulus to its sluggish economy.[32,33] Fiscal pressures may also have played a role in prompting Ontario to sign a tax collection agreement with the federal government for corporate

[30] Bird (2012), page 4.
[31] See, for example, Bird (2012) and Canada (1998).
[32] Robertson (2012), page 115.
[33] Chen and Mintz (2011) calculate that Ontario's package of reforms in 2010 (elimination of RST and introduction of the harmonized sales tax, a corporate income tax reduction and an acceleration in the elimination of its capital tax) reduced Ontario's marginal effective tax rate on capital from 33.6% in 2009 (the highest of all the provinces) to 21% in 2010 (below PEI, Manitoba and Saskatchewan).

income taxes in 2009, increasing the attractiveness of cost savings from centralized CIT tax administration and collection. It remains to be seen whether the recent fall in oil prices (and the resulting budgetary woes for Alberta) will act as a catalyst to prompt Alberta to sign a similar CIT tax collection agreement.

Sweeteners

The federal government has used incentives or sweeteners to facilitate developments in federal-provincial tax systems. Sweeteners include absorbing costs on behalf of the provinces, unilateral federal government tax cuts, and adjustment/transitional grants.

Centralized collection of provincial taxes by the federal government, free of charge, has been used as a sweetener for all three major taxes. In 1962, as part of the shift from the tax rental agreements to the tax collection agreements for personal income taxes, the federal government offered to collect provincial PIT tax revenue free of charge. By signing the agreements, all provinces except Quebec could avoid incurring the costs of establishing a provincial bureaucracy to collect and administer its own PIT. Over time, the federal government agreed to administer additional provincial PIT measures, free of charge, in an effort to encourage provinces to remain within the TCA. The federal government moved from the tax-on-tax approach to the tax-on-income approach for personal income taxes in 1999. To meet the provinces' demands for greater flexibility and, at the same time, preserve the benefits of centralized collection and administration and a uniform tax base, the shift to tax-on-income could be viewed as the sweetener needed to keep the TCAs intact. As a consequence, the system became more decentralized and less harmonized (in terms of PIT rates and structure).

For corporate income taxes, free collection by the federal government began in 1947 as part of the deal to encourage provinces to sign tax rental agreements in the post-war period. It was sufficient in 1947 to help convince all provinces but Ontario and Quebec to join. By 1981, this deal was not sufficient to keep Alberta in the TCAs for corporate income taxes. However, free collection might have been an added incentive for Ontario to sign a TCA for CIT in 2009.

The federal government also collects both the federal and provincial components of the HST at no cost to all provinces that have harmonized (except Quebec). The federal government pays a fee to the Quebec government for the province to collect the GST, along with the QST (Quebec's value added tax that is harmonized (more or less) with the GST) on behalf of the federal government. This arrangement still acts like a sweetener, since it provides Quebec both a payment and the flexibility and independence it demands.

Adjustment grants from the federal government to the harmonizing province are a factor contributing to the discrete shifts toward greater sales tax harmonization. New Brunswick, Nova Scotia

and Newfoundland received generous transitional payments from the federal government – totalling $961 million over 4 years – when they harmonized with the GST in 1996. Since the provincial rate under the HST was significantly lower than their former RST rates, some revenue loss was anticipated. The transitional payments to compensate for expected tax revenue losses served as an inducement to prompt these three provinces to harmonize with the GST. These provinces could have taken steps within the structure of their existing RSTs to eliminate the taxation of business inputs and address some of the investment disincentive effects and competitive issues associated with the RST. Mintz and Ip (1992) argue that because provinces received a considerable amount of revenue from the taxation of business inputs they were resistant to removing this source of inefficiency.[34] Transition payments in exchange for harmonization also helped to overcome this resistance.

Ontario, BC and PEI also received compensation when they harmonized with the GST. Ontario received $4.3 billion, British Columbia received $1.6 million and PEI received compensation of $39 million. PEI's combined HST rate of 14% is lower than the combined GST/RST of 15.5% that it replaced, so compensation could be expected because revenue losses were anticipated. Bird (2012) argues that the formula used to determine compensation for Ontario and BC must differ from that used in 1996 since neither province would qualify for such hefty payments under the 1996 formula.[35] These adjustment grants could be considered a necessary inducement for the reduction in provincial flexibility that is inherent in the HST tax collection agreement.

In contrast to the income tax arrangements of the past, the treatment of provinces has been quite asymmetric in the evolution of sales tax harmonization. Bigger provinces and provinces that have harmonized later have certainly received better deals from the federal government (although presumably provinces that harmonized earlier were able to reap the economic benefits of harmonization earlier).

With the reinstatement of BC's RST, the economic disincentives embedded in the RST reappear. The failure of the harmonization initiative in this province was a political failure – voter backlash against then-Premier Gordon Campbell's reversal of his 2009 campaign promise that harmonization was not in the offing. This political backlash will have real economic costs, even if the voting public sees it has a victory.[36]

Finally, consider the federal government's decision to cut the GST tax rate by two percentage points between 2006 and 2008. Kesselman and Spiro (2014) sum up the response of tax policy experts to the tax cut as one of "near-unanimous" opposition. However, by reducing its tax rate, the federal government also made "room" for provinces who had not yet harmonized with the GST to do so. Suppose

[34] Mintz and Ip (1992), page 91.
[35] Bird (2012) page 23.
[36] See Gunter (2011) and Robertson (2012).

the federal government had not changed its share/presence in the sales tax field. In making the decision about whether or not to harmonize, Ontario, for example, faced two choices: harmonize, keeping the provincial tax rate unchanged at 8% or harmonize and lower the provincial tax rate. The first option would leave the province with a comparatively high HST rate and may have been viewed as a tax grab by voters. The second option could be viewed as ceding tax room to the federal government. The federal government's GST cut enabled BC and Ontario to harmonize and, at the same time, keep provincial tax rates the same and receive a larger share of the HST base. As such, the federal government's action could be viewed as an inducement to encourage those provinces that hadn't yet harmonized with the GST to do so.

Mintz and IP (1992) expressed a concern shortly after the GST was introduced that if provinces eventually harmonized with the GST and gave up flexibility on this front, they would argue for more flexibility with respect to other taxes, such as income taxes. This might jeopardize the hard fought for gains from income tax harmonization. This concern turned out to be only partially correct. Provinces did lobby for and receive, over the period from 1992 to 2001, a significant increase in provincial flexibility in income taxation that culminated in the adoption of the tax-on-income approach. This was achieved without any commitment by provinces to harmonize with the GST. Indeed, the flexibility ceded to the provinces in terms of PIT and CIT could be viewed as a sweetener to encourage eventual sales tax harmonization. Even so, additional catalysts, like free trade and the recession, and sweeteners (such as adjustment grants and the GST tax cut) were needed to generate a movement towards greater sales tax harmonization.

Prospects for Federal-Provincial Climate Policy

In this section, we consider the prospects for a federal-provincial carbon tax keeping in mind the lessons learned from Canada's rich history of tax harmonization and coordination. Both the federal government and the provinces can undertake carbon pricing policies, but only a few have done so. Some provinces are pursuing a regulatory approach. And the federal government's regulatory approach (and equivalency agreements) appears to be on hold. Are we stuck with this patchwork approach? What is required to move to a more harmonized and coordinated carbon pricing system?

There are several carbon tax options. The most centralized option involves the federal government implementing and collecting a uniform carbon tax. The proceeds could be shared with provinces, with shares based on carbon tax revenues generated within the province's borders or the federal government could make rental payments unrelated to these revenues. In the fully decentralized case, the provinces could agree to collect and administer provincial carbon taxes, harmonized and

coordinated in some way across the provinces. Provincial tax rates may or may not differ and the scope of coverage might also differ. As an intermediate option, the federal government could implement and collect a harmonized carbon tax. A combined carbon tax rate could consist of a federal and a provincial rate. Provincial tax rates and the scope of coverage might differ under this option as well.

The degree of harmonization and coordination, cost-effectiveness and efficiency for each option would be different. And each option would come with its own unique political challenges. However, the lessons from Canada's experience with income and sales tax harmonization are broadly applicable. The first lesson suggests that no matter what option is pursued achieving a federal-provincial or inter-provincial arrangement will be a lengthy process, possibly years in the making. The agreements for personal income taxes, for example, were often preceded by federal-provincial conferences and bilateral exchanges where key issues and solutions were discussed. The process of moving from the centralized PIT system in 1941 to today's more decentralized system unfolded over decades. And it has taken 25 years to achieve the current level of sales tax harmonization in Canada. We can also infer from lesson one that any arrangement, once in place, is likely to evolve slowly and incrementally over a long period of time with more fundamental changes occurring infrequently. Lesson one tells us that we need not be stuck with the current patchwork approach to climate policy in Canada but a move to something better will take a long time.

The costs associated with the ineffective and inefficient climate policies that characterize the status quo policy landscape are, at present, insufficient to compel governments to take more action. According to lesson two, a catalyst will be required to jumpstart the process of moving from the current patchwork to a more coordinated and harmonized approach. The critical aspect of catalysts is that they are largely outside the control of government. One possible catalyst is a shift in climate policy in the United States.[37] If the US adopts a more stringent carbon pricing policy, this creates room for Canada to do so without creating a significant competitive disadvantage for itself. This observation is not new. It is, however, useful to observe that catalysts (including policy and economic changes in the US) have contributed to shifting the incentives to harmonize and coordinate other major taxes in Canada. We should expect the same to be true in the case of carbon taxes. External conditions, especially those in the US that alter Canada's competitiveness vis-à-vis the US strongly influence policy and policy changes in Canada.

Lesson three suggests that sweeteners can help bring reluctant partners on board. Historically, sweeteners have been an important tool used by the federal government. As a pre-condition, for such incentives to play a role in encouraging greater harmonization and coordination in carbon taxes, the

[37] Recent events suggests that the most recent changes in the US have not been sufficient (yet) to spark action on the part of the federal government in Canada.

federal government must first have a presence in the tax field. With respect to income and sales taxes, history suggests that interprovincial coordination and harmonization on its own was not particularly successful. A lack of federal government presence in the tax field during these early years helps to explain this outcome. Harmonization moved forward after the federal government unilaterally entered the income tax and broad-based sales tax fields. Thus, if we are to move from the fragmented policy landscape to a more harmonized and coordinated approach, lesson three suggests that the federal government needs to establish a presence in the carbon tax field. Having done so, it can then use sweeteners to facilitate the process of harmonization with the provinces. Possible sweeteners include transitional payments and centralized collection of carbon taxes, at no charge to the provinces.

Note that centralized collection and administration is also a political sweetener. If the federal government is perceived as the government imposing the carbon tax, provincial governments are sheltered, at least in the short run, from suffering the political costs and voter opposition that might otherwise accompany the introduction of broad based, provincial carbon taxes. The introduction of the GST was considered by many to be political suicide and yet the federal government went ahead with it. Of course, the federal government waited 60 years to replace the highly inefficient manufacturer's sales tax. A catalyst was needed before the federal government made the necessary changes and suffered the political consequences. The same will be true for federal-provincial carbon taxes.

Conclusions

Canada is a decentralized federation where provincial governments have significant taxing powers, co-occupy most major tax fields and share responsibility for the environment with the federal government. The resulting climate policy landscape is fragmented and largely uncoordinated across provinces and between the federal and provincial governments. From an economics perspective, this approach is more costly, less efficient and less effective than a national level, or more harmonized, approach, to achieving emissions reductions. This policy landscape is reminiscent of the "tax jungle" that characterized Canada in the early 1930s. And yet today, major shared taxes, such as personal income, corporate income and general sales taxes, exhibit various degrees of federal-provincial harmonization and coordination. This paper considers the question of whether we are stuck with the current patchwork of climate policies in Canada or whether the kind of harmonization that exists for Canada's major shared taxes is also possible for climate policy.

The paper reviews the evolution of broad-based sales taxes, personal income taxes and corporate income taxes – focusing on issues of tax sharing, harmonization and collection. Drawing on the three

lessons identified, the paper considers the prospects for moving forward with a more harmonized and coordinated approach to federal-provincial climate policy, focusing specifically on carbon taxes.

First, harmonizing and coordinating taxes between governments is a process that takes a long time. One should expect the process of moving from Canada's current, fragmented climate policy landscape to a more harmonized approach to take years. Second, catalysts have played a critical role, creating the conditions that provide stronger incentives to depart from the status quo. Many of the major reforms in federal-provincial tax systems leading to more coordination and greater harmonization required an external shock, like a recession or new free trade agreement. The same will be true in moving forward with federal-provincial carbon taxes. Without a catalyst, we can expect incremental changes at best. Finally, federal government "sweeteners" have played an important role in achieving income and sales tax harmonization. The offer of incentives goes hand in hand with the federal government having a dominant presence in the tax field. Thus, we can expect that such sweeteners will be required to facilitate the move to a system of harmonized federal-provincial carbon taxes. The use of sweeteners requires that the federal government establish a presence in the carbon tax field but such a move is also unlikely without a catalyst.

In sum, the current patchwork of climate policies can be expected to persist for some time, in large part because external conditions are not sufficient to prompt a move to a more coordinated and harmonized approach. Once these conditions change, the process of reform can begin. The price of Canadian federalism is that this process of change will be slow and will require sweeteners of various kinds to facilitate the transition to a more cost-effective and efficient federal-provincial carbon tax system.

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