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RECENT TRENDS AND PROSPECTS FOR REFORMS IN DIRECT TAXATION

A technical note prepared for the

Commission d'examen sur la fiscalité québécoise

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Tax Policy Division

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I. INTRODUCTION

1. **The Fiscal Affairs Department** (FAD) **of the International Monetary Fund** (IMF) **is pleased to contribute to the *Commission d'examen sur la fiscalité québécoise*** (henceforth "Commission")**.** This note follows a request of the Québec provincial authorities channeled by the Canadian government through its Executive Director at the IMF, for technical assistance in support of the Commission. The note was sent to the Commission through the same channel. It was internally reviewed by FAD management, by the Canadian team in the Western Hemisphere Department, and by the Canadian Executive Director.

2. **As requested by the Commission, this note provides an overview of recent trends and main reform currents for personal and corporate income taxes** (PIT and CIT[1])**.** In this respect, it aims to provide general contextual information on the quantitative and structural evolution of income tax systems in the world, in order to guide the reflections of the Commission's members. This note does not provide any description or views on the tax systems of the Province of Québec or Canada, it does not make any recommendations, and it plays no role in the IMF's surveillance effort. As agreed with the Commission, this note will be published with the final report of the Commission, but will not play any role in the public consultations.[2]

3. **Although the IMF drew from its own broader international experience, the note focuses mainly on the recent experience of OECD countries.** These countries are the main trading partners of the Province of Québec (in addition to Ontario and other Canadian provinces) and are also its main competitors to attract foreign investments. Most savings exported from the province are also invested in the rest of Canada and OECD countries. The experience of other countries is evoked when relevant to a specific topic discussed by the note.

4. **This note is divided as follows.** The evolution of the tax mix, burden, rates and base is described in Section II. The following section discusses more conceptual issues that shape tax systems and that have influenced the design of tax systems in recent history. Section IV briefly highlights demographic and macroeconomic considerations in the Province of Québec, that could be relevant in light of sections II and III.

[1] As per the request received from the Commission and following further discussions with its Chair, wage taxes are not included in this overview, but they are briefly discussed in Section II.

[2] The note provides no detailed Québec- or Canada-specific analyses. In particular, this paper does not discuss issues of fiscal federalism and it does not discuss the relevance of recent national-level experience for sub-states units. In that respect, the analyses and views presented herein could be relevant for any country or sub-state unit.

II. A QUANTITATIVE OVERVIEW OF THE RECENT EVOLUTION

A. Overall revenue and tax mix

5. **The tax burden in Canada and the United States of America** (USA) **marks a clear downward break compared to a core group of OECD countries[3] excluding Canada and the USA** (henceforth "OECD") **after 2000** (Figure 1)**.** For these OECD countries, the combined tax burden of the central and states/provinces governments increased significantly between the mid-60s and the mid-80s, before stabilizing at roughly 37% of GDP (Figure 1.1). Despite a very slight decline after 2000, the tax burden abruptly shifted upwards following the recent financial crisis. By contrast, the tax burden has remained relatively stable and much lower in the USA, at around 25% of GDP, but with a regular and mild increase from 1983 (24.0% of GDP) to 2000 (28.5% of GDP), and a sharp turnaround afterwards back to 24.4% by 2012 (Figure 1.2). From an initial tax burden on par with that of the USA in 1965, Canada reached the OECD average in the 1990s, but then reversed course and is now halfway between OECD average and the USA (Figure 1.3).

6. **The tax structure varies significantly between the OECD and North America, most notably with regards to the level of indirect taxes and PIT.** Reliance on corporate income tax (CIT) has converged to around 10 percent of revenue needs for OECD, Canada and the USA.[4] However, OECD countries show a very clear convergence in the burden of PIT, indirect taxes and social security/payroll taxes at 27% to 29%[5], while Canada and the USA rely primarily on the PIT (35% to 40% of tax revenue), albeit with a recent slight decline that was stopped by the 2008/09 financial crisis. Social security contributions have significantly grown in importance until the early/mid-1980s in the USA and OECD and stabilized thereafter at around 25% of tax revenue, but they remain relatively less important in Canada, despite increasing reliance.[6] The recent evolution of the tax structure could therefore be characterized as follows:

- OECD: (1) CIT at roughly 10% of tax revenue; (2) relatively heavy reliance on indirect taxes; (3) clear convergence in the burden of PIT, indirect taxes and social contribution/payroll taxes.
- USA: (1) CIT at roughly 10% of tax revenue; (2) heavy reliance on PIT, (3) relatively low importance of indirect taxation and absence of a value added tax (VAT); (4) very stable relative importance of tax aggregates since the early 1980s.

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[3] Throughout this paper, all "OECD" data is based on countries with data for the entire study period, excluding Canada and the USA: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherland, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

[4] Albeit with a slight increase since the early 1990s on average in OECD countries.

[5] This hides a significant shift away from traditional retail sales taxes towards the value added tax.

[6] Most likely because health care is partly financed through general taxation in Canada.

- Canada: (1) CIT at roughly 10% of tax revenue; (2) heavy but slightly decreasing reliance on PIT (overall in line with USA); (3) reliance on indirect taxation between USA and OECD levels, and; (4) the relative importance of indirect taxation and social security contribution/payroll taxes is inverted compared to USA.

Figure 1: Tax burden and breakdown of tax revenue in OECD countries 1/ 2/

Figure 1.1 OECD average

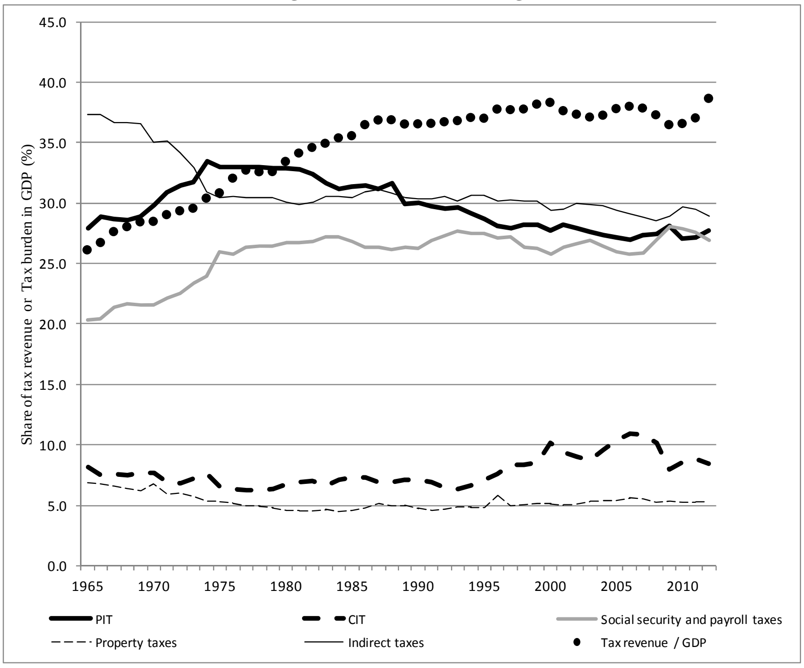
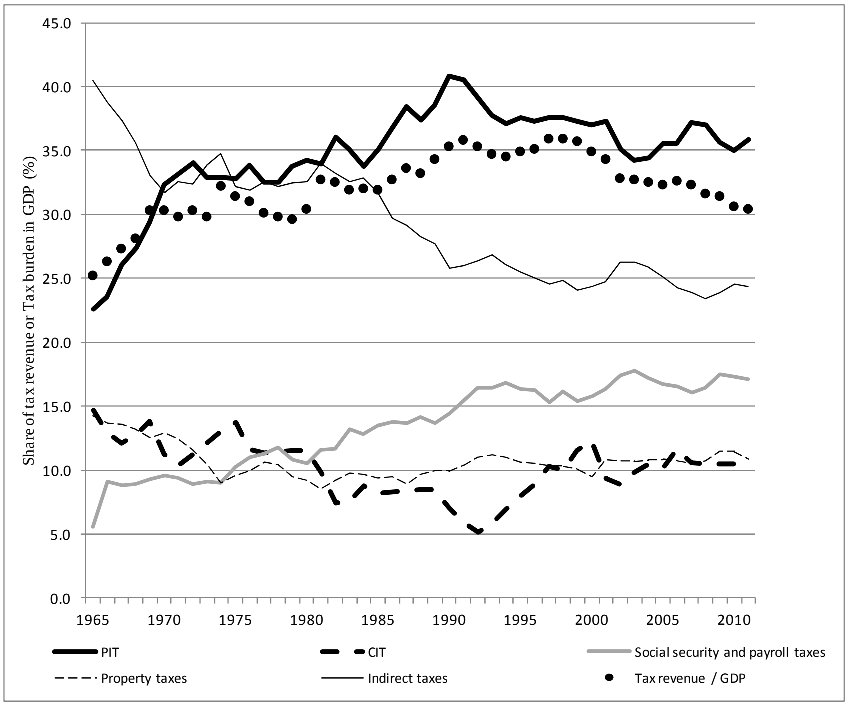


Figure 1.2 USA

Figure 1.3 Canada



Source: OECD, Statistics Canada, and IMF staff calculation.
1/ All levels of government.
2/ Non-weighted average of OECD countries with data for the entire period, excluding Canada and the USA: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherland, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

7. **The tax burden and tax structure of the Province of Québec is peculiar within Canada**. Québec's combined federal and provincial tax burden was 4 percentage points higher than Ontario's in 2009 (see shaded areas in figures 2.1 and 2.2). The federal tax burden in Québec has been decreasing steadily since 2000, from 16.6% to 12.3% of GDP, while the provincial tax burden has increased slowly and regularly over the entire period, despite a pause in the second half of the 1990s. In Ontario, however, the provincial tax burden has remained roughly stable since the early 1990s. The decline in the tax burden for both provinces (and therefore probably also for Canada as a whole, given the weight of these two provinces) is thus due to the decrease in federal tax revenue as a share of GDP. The federal tax burden is also noticeably lower in Québec compared to Ontario (see lines in figures 2.1 and 2.2), due to existing fiscal arrangements,[7] which means that the Province of Quebec has more leeway in adjusting the overall tax structure. The breakdown of combined federal/provincial taxes shows a moderate but

[7] In the mid-60s, the federal government offered to withdraw from certain shared federal/provincial programs, and to compensate the provinces for the ensuing additional burden. In the Province of Québec, this transfer took the form of a transfer of fiscal space, whereas other provinces opted for additional federal transfer payments. After various modifications, the share of the federal personal income tax transferred to the Province of Québec has been stable at 16.5 percentage points since 1977.

clear preference for indirect taxation in Quebec, with a combined share of 36% of the tax burden in Quebec, as opposed to 32% in Ontario (figures 2.3 and 2.4). Corporate tax expenditures also appear significantly more generous in Québec (Finances Québec, 2014a).

Figure 2. Tax burden and breakdown of tax revenue in Québec and Ontario (2009) 1/ 2/ 3/

Figure 2.1 Tax burden and breakdown (Québec)

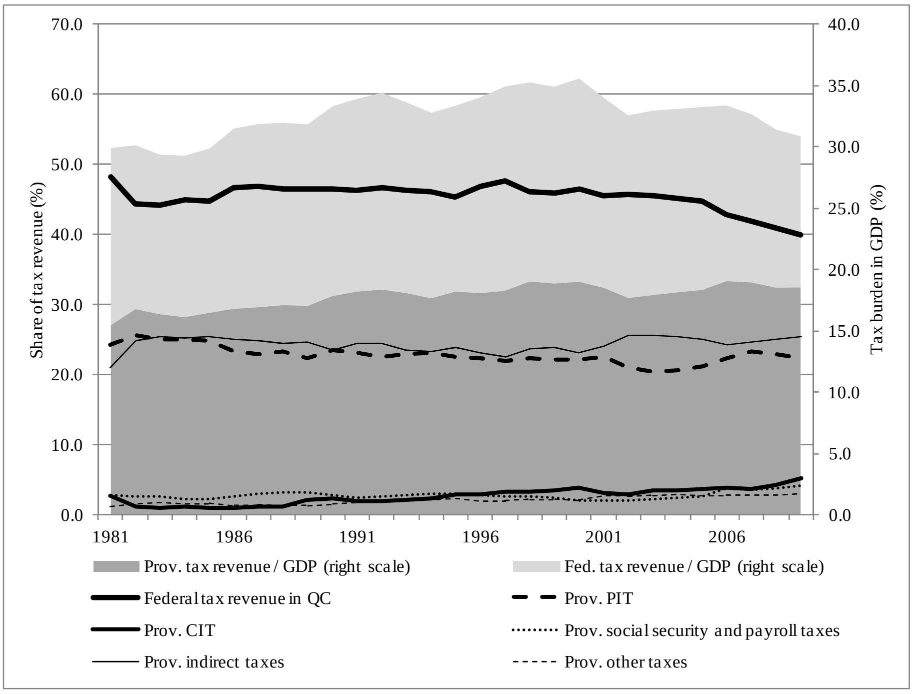


Figure 2.2 Tax burden and breakdown (Ontario)

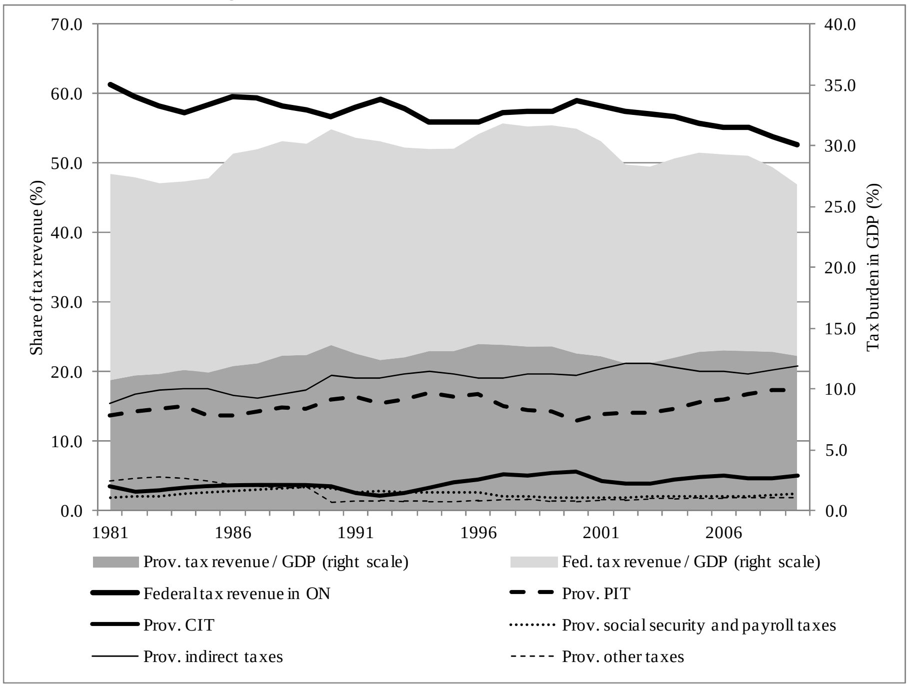


Figure 2.3. Detailed breakdown (Québec)

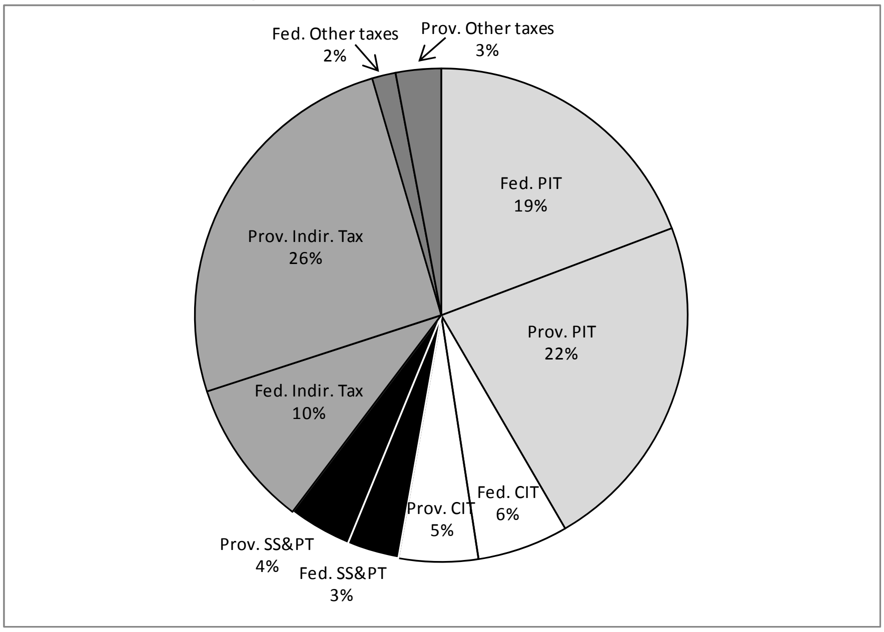
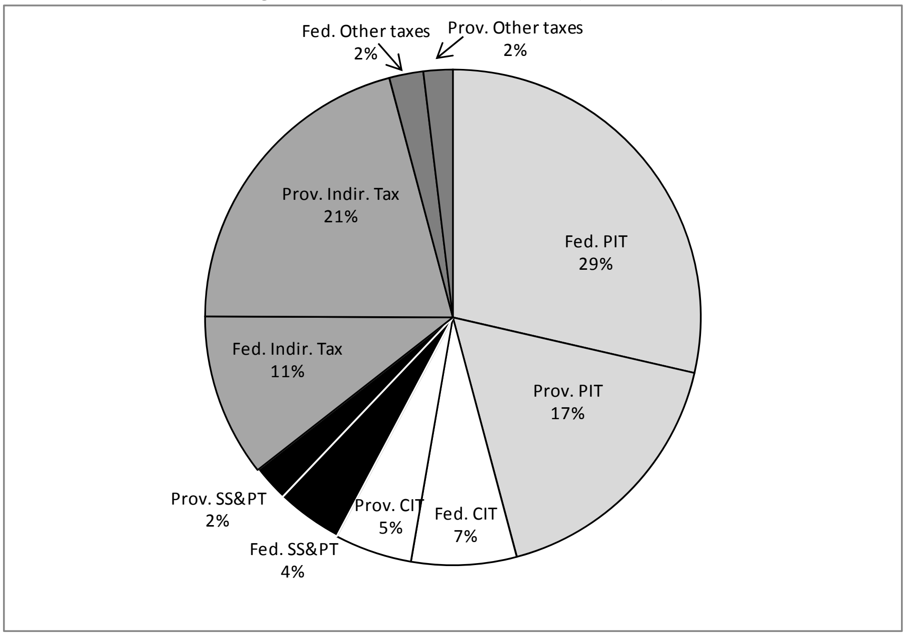


Figure 2.4. Detailed breakdown (Ontario)



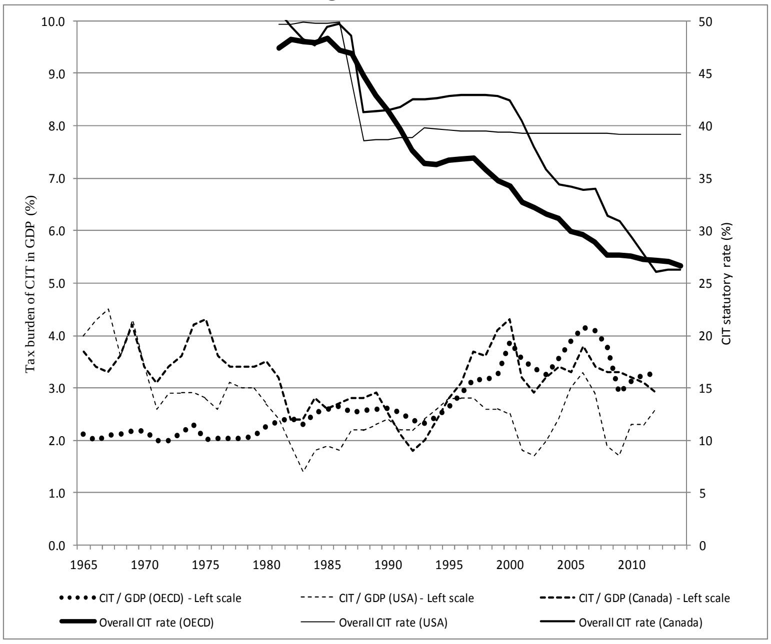
Source: Statistics Canada (Provincial and Territorial Economic Accounts), IMF staff calculation. Equivalent post-2009 data for both provinces are not yet available in the new version of the provincial economic accounts.
1/ Excluding municipal level (i.e., mostly property taxes) and non-tax revenue.
2/ Components of the breakdown add to 100%, including federal taxes.
3/ Direct comparison with OECD data (including Canada) should be done with caution, as OECD data is standardized for international comparisons.

B. Corporate and personal income taxes: rates, base, share of GDP

8. **Sharp decreases in CIT statutory rates in OECD were followed by stronger revenue performance, but the evidence is less clear in the case of Canada and the USA** (Figure 3.1)**.** Between 1981 and 2014, the average statutory OECD CIT rate gradually fell from 47.4% to 26.7% (all levels of government combined), while CIT revenue grew from 2.4% of GDP to 3.3% (even reaching 4.1% of GDP in 2007, before the financial crisis[8]). However, the apparently smooth negative correlation of average tax rates and revenue might hide important country-level variations and potential lag effects. In the case of Canada for example, CIT tax revenue as a share of GDP decreased from 3.2% in 1981[9] to 1.8% in the 1992 recession, and then significantly improved from 1992 to 2000 before stabilizing thereafter. These movements do not appear to be directly and strongly related to the one off 7-points drop in statutory rate in 1988 and the slow and steady decline towards the current level of 26.7% after 2000, which leaves much place for discussion on the respective effects of the statutory rates and of the economic context on CIT tax revenue. The statutory rates also dropped significantly in the USA in 1988, but remained at that level afterwards. The revenue performance nevertheless fluctuated with the Canadian one, albeit at a lower level.

Figure 3: Corporate and personal income tax: rates and share of GDP 1/ 2/

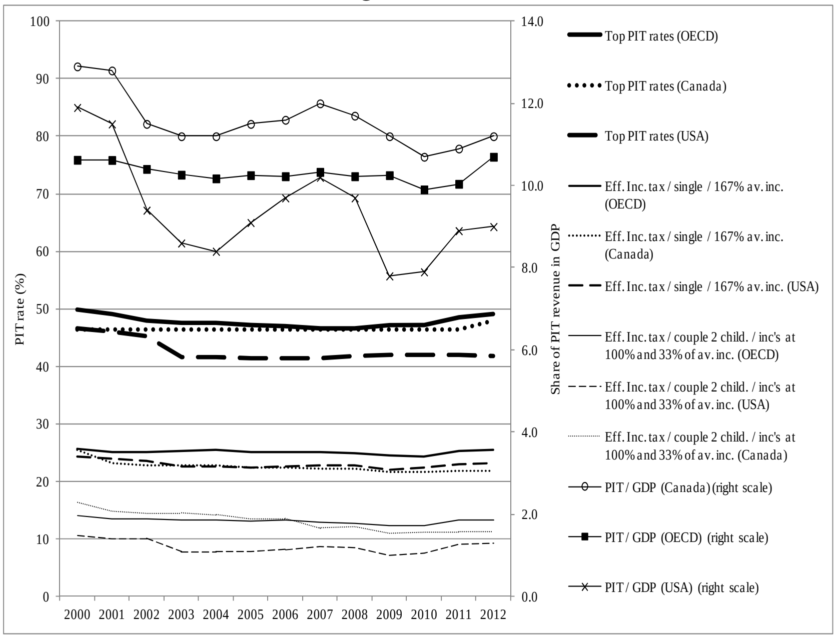
Figure 3.1: CIT



[8] CIT is arguably the most volatile source of government revenue.

[9] The 1981 level was reached from a high of 4.3% of GDP in 1975.

Figure 3.2: PIT



Source: OECD, IMF staff calculation.
1/ All levels of government combined.
2/ Non-weighted average of OECD countries with data for the entire period, excluding Canada and the USA: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherland, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

9. **Statutory PIT rates have decreased significantly between the mid-1980s and the mid-1990s, and only very moderately since then.** The top rates on personal income from wages have notably fallen in the OECD, along with the threshold at which they apply (Figure 3.2; OECD, 2012). The number of brackets has also considerably declined (mostly in the 1980s) from an average of 14 in 1981 to 6 in 1990 (there is no clear OECD-wide trend in the number of brackets afterwards). Peter et al. (2010) found similar results for a wide sample of non-OECD countries. Although such changes do not in themselves have an unambiguous effect on progressivity (nor are they the sole factors affecting progressivity), the overall *de facto* effect has been to make the PIT less progressive (Peter et al., 2010; Brys, 2011) and to somewhat flatten the tax schedule (although there is no clear trend for the lower threshold). This movement away from progressivity of the tax system was also partly driven by the developing view that overall progressivity of government interventions was also achieved by the expenditure side.[10] However, growing income inequality (whether related or not to past changes in the progressivity of the tax system), have lately motivated progressivity-enhancing changes to tax systems in many OECD

[10] See Bastagli et al. (2012) for an interesting discussion of recent trends in the progressivity on the fiscal and expenditure sides of the budget.

countries, especially following the last financial crisis and the revenue needs it created. In addition to these worldwide trends, the effective rates for some of the main income strata have recently decreased more in Canada and the USA than in OECD countries, which could explain the regular downward trends in the PIT tax burden (Figure 3.2). This trend also dovetails with the recent slight, but significant decline in the reliance on PIT in these two countries (see figures 1.2 and 1.3).

10. **The CIT base broadened since the 1980s, but base-broadening alone cannot explain the resilience of the CIT.** The reasons for the apparent inverse relationship between statutory rates and revenue performance in the OECD are not entirely clear, but it seems quite sure that the corporate tax base did broaden, notably through less generous depreciation allowances (Brys, unknown year), exemptions, tax credits (notably investment tax credits), or interest deductibility (Devereux and Sørensen, 2006). The OECD and the European Union have also helped limit preferential regimes, leaving the headline CIT rate as the main tool to attract foreign investments (Valenduc, 2008). Others have also evoked the greater attractiveness of lower rates on multinationals and therefore the reduced incentives to relocate to offshore tax jurisdictions (although this does not apply to large economies like the USA and Japan, whose rates remained relatively high, hence further incentives for corporate inversions and other tax planning strategies). However, it is also possible that the corporate sector increased in size (Valenduc, 2008), perhaps to benefit from a widening rate gap with PIT (hence increasing evidence of a greater share of profits in national income). Regardless, at a general level, the reforms have reached their goals, as revenue (as a share of GDP) have never decreased by nearly as much as the rates in any country, and have actually increased on average. The sometimes disjoint evolution of tax rates and revenue performance in Canada and the USA suggests however that the respective impacts of statutory changes and economic context on the base remain difficult to disentangle.

11. **The PIT base also broadened since the 1980s.** The significant rate reductions in the late 1980s were not accompanied by commensurate drops in revenue (as a share of GDP), which indicates that base expansion more or less compensated them. Recent rate movements (up to the financial crisis) are less pronounced, and as revenue has remained more or less stable as a share of GDP in OECD countries, it appears that the size of the base might not have evolved much either. The post-crisis increase in revenue also seems to stem from rate increases (Figure 3.2), indicating again a rather stable base.

12. **Recent trends in the CIT and PIT tax bases are less clear**. Although indirect evaluation through the evolution of rates and revenue provides a comprehensive and easy assessment of the tax base, it remains very imprecise as to the specific elements that drove the expansion discussed above. On the other hand, tax expenditure assessments provide a more direct evaluation of the tax base, but they remain plagued by a series of problems. For one, tax expenditure assessments are very recent for many countries and pre-2000 meaningful international comparisons are almost impossible to draw. In addition, the definitions, scope, methods, data, etc. differ widely across countries and even in the same country over time. What is more, tax expenditures may

decrease simply by decreasing tax rates, as many are of the income deduction type. Finally, it is widely advised against summing tax expenditures even for the same country/period, as the sizes of various tax expenditures are often mutually dependent, and the nature of this interaction will change from country to country and from one period to the next. Yet, cautious and careful analyses (OECD, 2010b) for roughly the first decade of the millennium points to an increased VAT base[11] and unclear trends for CIT and PIT, with significant country variations. PIT tax expenditures remain significantly more important than for CIT, notably for equity reasons. Main tax expenditures target owner occupied housing, retirement savings, children and families, social benefits, food and necessities, small businesses, and R&D expenditures. In Canada, the share of tax expenditures in tax revenue has remained stable, amidst an overall decline in the tax burden (OECD, 2010b).

13. **The global tax environment in which the Province of Québec is undertaking its tax reform is therefore characterized by a few core trends.** North America is in the midst of a clear downward trend in the overall tax burden, which in Canada appears to be mainly driven by the federal government. Tax revenue in North America is also significantly more dependent on PIT than on consumption taxes and the relative importance of consumption taxes does not appear to be increasing, although PIT has recently lost ground to other taxes. Québec seems to rely somewhat more on consumption taxes than Ontario and has more leeway in adjusting its tax mix because of the heavier relative importance of provincial taxes. Corporate income tax across OECD, USA, Canada, and the provinces of Québec and Ontario is converging to around 10% of the tax mix, following a significant movement towards lower rates and broader base started in the 1980s (albeit apparently at times disjoint for Canada and the USA). The movement has been similar for PIT, with a simplification and flattening of the rate structure, although recent evolution is less clear than for CIT.

[11] These conclusions are also based on VAT efficiency ratios or the relationship between actual VAT revenue and theoretical VAT revenue if the standard rate were applied to the targeted tax base.

III. BEYOND NUMBERS: CHANGES TO THE ARCHITECTURE OF THE TAX SYSTEM

14. **The main goal of any tax system is to meet budget needs**[12] **by impacting the behavior of economic agents the least possible** (efficiency principle) **and by aligning each taxpayer's burden with her ability to pay** (equity principle) **through tax laws that are simple to understand and inexpensive to administer** (simplicity)**.** The selection of the tax bases and related rates is therefore the most important decision tax policy makers need to take. Although the base can be made of economic flows (revenue or expenditures) or stocks (financial or physical capital), as all stock are ultimately constituted by flows (savings) and as productive capital has in the long run the greatest impact on standards of living, the bulk of tax revenue in modern tax systems comes from economic flows, as estimated by Gross Domestic Product (GDP). Clear exceptions to that are property and net wealth taxes (both of which can be relatively economically efficient and generally equitable direct taxes born by individuals, and hence the subject of renewed interest[13]), which will not be treated here but remain highly relevant for modern tax systems (see Figure 1). The architecture of the tax system is therefore largely shaped by which of these tax bases the tax system aims for and how they can be defined in workable accounting terms at the individual level, and whether or not it is possible to reach out to these tax bases at low administrative costs and in a sustainable fashion.

A. External factors shaping the evolution of tax systems

15. **The economic context is important in shaping tax policy because it largely determines the authorities' capacity to effectively define and control a tax base that will provide stable revenue.** The pursuit of other economic objectives and regional/global emulation to minimize coordination issues also plays a key role.

16. **By far the most important evolution of the past few decades has been the increasing globalization of economic exchanges, and the growing mobility of production factors that it entails** (Norregaard and Khan, 2007). As suggested by Figure 4 however, not all production factors have been equally affected. While international exchanges increased significantly, capital flows (here foreign direct investments and net inflows of portfolio equity) expanded even more rapidly, while the share of international migrants in the world remained much more stable. In other words, globalization has made capital more mobile than labor and therefore more difficult to tax. This phenomenon has played a central role in the reduction of CIT and other taxes on capital in the last few decades. Globalization has also played a significant role in the spread of

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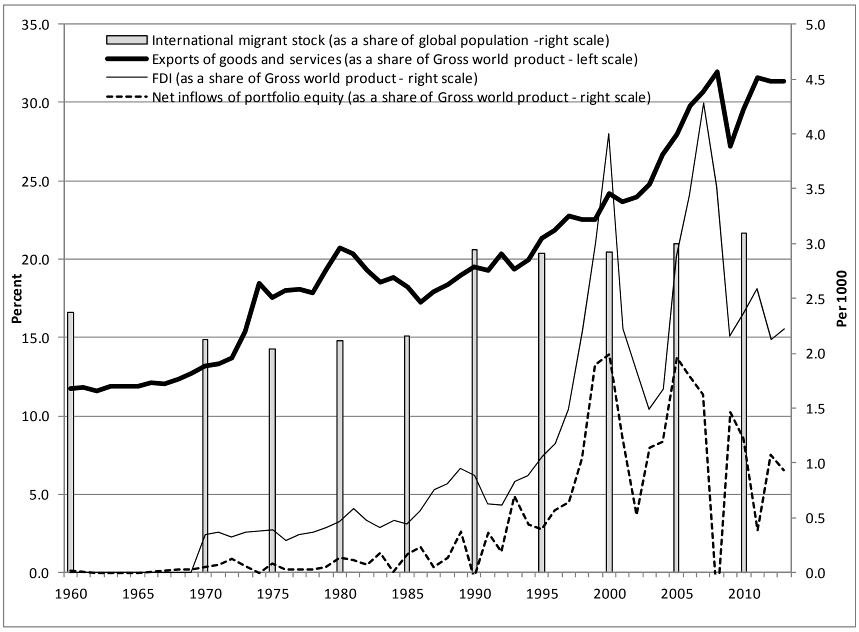
[12] The optimal size of the budget is the topic of a vast literature that will not be discussed here. Although there can be complex feedback loops from the tax system to economic activity and optimal budget size, budget needs are treated here as an optimal exogenous target to be reached by the tax system.

[13] See Norregaard (2013), and Appendix 3 of IMF (2013). The renewed interest is also motivated by increasing awareness of rising inequality, notably in relation to the high end of the income spectrum.

VAT, as countries could replace falling customs duties and inefficient sales taxes by one efficient tax that also applied to imports.

Figure 4. Globalization and factor mobility at the global level



Source: World Bank (World Development Indicators), IMF staff calculation.

17. **The greater tax competition brought about by globalization also fostered greater cooperation.** For example, taxation rights for international transactions had to be allocated for telecoms, e-commerce and other industries. Many countries also agreed to limit harmful tax practices, often as part of a wider effort for regional integration. The European Union, the OECD, the West African Economic and Monetary Union and many more have, each in their own way promoted some form of tax coordination. This in turn means that defining tax policy is a much more complex exercise than it used to be and that international conformity and potential feedbacks have to be assessed/forecasted before implementation of a tax reform. Nowhere has this been more obvious than in the relations with offshore financial centers (see Box 2) and other low-tax jurisdictions. Indeed, the greater complexity of international trade has increased the capacity of certain multinationals to shift profits across jurisdictions, notably through various transfer pricing strategies, sophisticated use of non-double taxation treaties, or by relocating activities or transaction to benefit from a particular tax treatment.[14] This, and offshore tax evasion

[14] Such strategies can also in some cases be illegal (i.e., tax evasion), although it is more common to see aggressive strategies which are legal, but that constitute a complex use of various legal provisions regardless of the economic substance of original transactions, and for the sole purpose of avoiding taxation (i.e., tax avoidance).

by individuals, has in turn motivated an increased effort to share information and has resulted in increasing pressure on tax jurisdictions that are seen as too lenient.

18. **Aside from globalization, other economic factors have motivated tax policy adjustments.** The post-1980 productivity slowdown in high-income countries has renewed interest on the impact of the tax system on investment and growth, and therefore on the taxation of capital income as a potential obstacle to growth. Rising unemployment has triggered a movement to reduce the "tax wedge", i.e., the gap between the cost of labor to a business and the "take home" pay of an employee created by income taxes, wage taxes, social contributions, and other salary-based taxes and charges; Germany has notably reduced social contribution along these lines and such reforms are now contemplated in many European countries. Employment considerations have also motivated the various "Making Work Pay" initiatives aimed at softening the increase in the tax burden for individuals who reintegrate the labor market. The recent economic downturn and growing inequality (notably in the United States and other Anglo-Saxon countries) has also played a role in recent changes to PIT rates in many countries (notably the top rates – see Figure 3.2) and renewed the interest in financial sector taxation and mechanisms to mitigate the debt bias in corporate financing. Increasing natural resource prices, largely due to China's accelerated economic development in the two decades up to the recent financial crisis, have fostered a wave of reforms in the field of natural resource taxation to ensure that countries get a reasonable share of the larger resource rent. Finally, climate change and growing pressure on the environment has created tremendous interests in the new field of environmental taxation.

19. **Not all of these factors are equally important for CIT and PIT.** Although many more general and idiosyncratic factors could be enumerated, it appears that production side considerations have recently played a significant part in shaping CIT and PIT reforms. In this respect, factor mobility, creating growth- and productivity-enhancing tax environments, reducing the tax wedge and disincentives to work, and increasing international coordination (including information sharing), should probably constitute clear areas of concerns for any tax jurisdictions, in addition to addressing the revenue needs created by the recent financial crisis.

B. An important debate for tax policy design: Taxing income vs. consumption

20. **There is a certain consensus among economists that taxing consumption is more efficient and growth-friendly than taxing income.** Regardless of how income and consumption are distributed or taxed at the individual level, taxing aggregate consumption creates in principle fewer distortions in economic decisions because it avoids the double taxation that is created by taxing capital income.[15] Indeed, any income from capital comes from the accumulated savings

[15] Which is not to say that there are no distortions created by taxing consumption: if earned income is largely saved, the consumption tax base could be much smaller than the income tax base, hence the need for a higher rate to meet the same budget needs. However, a higher rate could create more distortions. There is also a wide and at times rather

(continued)

that created the capital in the first place, and because savings ultimately come from unconsumed labor income, if labor is already taxed, taxing capital income is tantamount to taxing labor twice[16] (or at least the part of the labor income that is not consumed) – see Box 1. Economists have also found empirical evidence that reliance on consumption taxes (and property taxes) as opposed to PIT, and especially CIT, favors growth. These findings have had a strong influence on CIT rates, on the emergence of various tax deductions for savings vehicles (notably in Canada, with schemes such as Tax-Free Savings Accounts, The Registered Retirement Savings Plans and the Registered Education Savings Plans, for example), and probably play a role in the global wave of property tax reforms.[17]

Box 1: Why is taxing capital income equivalent taxing labor twice?*

In this simple example, assume that there are two consumers, *Patient* and *Impatient*, each with a labor income of $100 this year. They have the choice to consume it entirely today, or to invest it at 100 percent return and consume $200 next year. *Patient* chooses to save all his income and to consume $200 next year, and *Impatient* consumes 100$ now.

If there is a 20% income tax, *Impatient* can only consume $80 this year, i.e., 80 percent of its income. However, *Patient* will invest his after-tax income of $80 and receive $160 next year. But the interest of $80 is an income under an income tax, and will therefore be taxed at 20 percent, so in fact, Patient will only receive $144 next year (i.e., $80 in capital that is paid back to him, plus 80% of the $80 in interest). So overall, *Impatient* can consume 80% of his no-tax income (i.e., $80/$100), while *Patient* can only consume 72 percent of his no-tax income (i.e., $144 of his $100 dollars in labor and the $100 he would have had in interests in the no tax world).

This would not have happened if only consumption were taxed at the same rate. On one hand, *Impatient* would have paid $20 of his immediate consumption (therefore facing the same tax burden). On the other hand, *Patient* would have paid no tax in the first year, he would have invested $100 now and received $200 next year, and it is only upon consuming that $200 next year that he would have paid the 20% tax, i.e., $40, i.e., the same tax burden as *Impatient*. Although this example obviously has its limits (if we introduce inheritance and/or equity considerations, for example), it clearly shows how the taxation of capital can lead to significant distortions.

* This example is taken directly from Carroll et al. (2008).

contentious literature on optimal taxation of capital and on the conditions under which it should be nil (see OECD (2006a) and Mankiw et. al (2009) for non-theoretical introductions).

[16] The number of times a tax base is taxed should not matter as such, as it is the final (cumulated) burden that creates the distortion (i.e., taxing 10 times at one percent is still less than once at 30 percent). It is therefore implicit in the argument developed here that “taxing twice” means “taxing more”.

[17] The interested reader can consult a range of studies on this topic, notably: Engen and Skinner (1996), Johansson et al. (2008), OECD (2010a), Arnold (2008). Evidence for the Province of Québec is debated in Arseneau et al. (2012), and Ebrahimi and Vaillancourt (2012).

21. **Taxing consumption, though, does not necessarily mean a retail tax on consumption.** Consumption is an economic aggregate and in national accounting, any economic aggregate can be defined in terms of source and use. As can be seen from Table 1, taxing consumption can be done by: (1) directly taxing C; (2) Taxing Y-S, which is earnings of all sources minus savings; or (3) taxing the sum of wages, interests, and profits (before depreciation) from which all investments are deducted on a cash basis. In contrast, it can be seen that PIT is in fact a tax on W + R, and that a CIT is a tax on P, i.e., an accounting definitions of profits that excludes depreciation and investment.

Table 1. Taxing income vs. consumption 1/ 2/

Use	Source
$Y = C + I$	$Y = W + R + P + D$

But I = S, so:

$$Y = C + S = W + R + P + D$$

And therefore:

$$\mathbf{C = Y - S = W + R + P + D - I}$$

Where:

Y = Gross Domestic Product	I = Investment	R = Interests	D = Depreciation
C = Consumption	W = Wages	P = Accounting profits	

Source: Zee (2005).

1/ Assuming a closed economy and no government for illustrative purposes. The same reasoning is valid in an open economy and allows discussing origin vs. destination aspects of consumption taxes, i.e., should the base of consumption taxes be defined where consumption goods and services are produced or consumed?

2/ For illustration purposes, the terms of the equations above had the following values (in CAD billions) in the Province of Québec in 2013. Assumptions on the closed economy and no government were removed and defining the exact bases would demand additional work.

W+R	228.2	C (households)	213.3
P	45.2	I (private sector)	61.0
D (private)	32.0	Gov. spending (C + I)	115.2
D (public)	14.9	External sector	-24.4
Indirect taxes	44.8		
TOTAL (GDP)	365.1	TOTAL (GDP)	365.1

22. **Translating the three aggregate concepts of consumption into a workable definition at the individual level can be challenging however.** Taxing C itself with a retail tax or consumption-based VAT as the Goods and Services Tax currently in use in Canada is by far the simplest, but it offers an imperfect treatment of equity considerations, because the tax is typically based on the value of a transaction, and not on the overall economic situation of the consumer.[18] As we shall see in sub-section III.C, some of these issues can be dealt with by using the other two definitions of consumption, and in fact, trying to come to a definition of Y-S and W + R + P

[18] That being said, exemptions and other compensating measures such as refundable income tax credits can mitigate or even in some cases fully reverse the regressive impact of consumptions taxes (Godbout et al., 2011).

+ D that is workable at the individual level (to include equity considerations) is at the core of many significant proposals for fundamental tax reforms.

23. **Feasibility and equity have therefore remained powerful arguments in favor of income taxation.** Indeed, if one is willing to accommodate certain implementation issues,[19] it is relatively easy to define income at the individual level and therefore to introduce detailed equity considerations, such as income level, family/dependents situation, medical conditions, etc. Income taxation, despite its treatment of capital is therefore likely to be around as long as consumption-based taxation will remain relatively blind to equity matters. In addition, the extent of the superiority of the consumption tax base over the income base in terms of economic efficiency has also been challenged by many, including Hubbard (1997),[20] and at a time of record low interest rates, the extent of the double taxation of savings certainly is not what it used to be in the early 1980s. This is not to say however, that income-based taxation has not generated its fair share of complexity, among which (see also Box 2):

- The annual allocation of investments' costs to annual costs for the purpose of defining annual income (i.e., use of depreciation instead of expensing investments).

- The deductibility of interests charges from business profits, in order to take into account the income nature of interests at the individual level. This has in turn created a significant debt bias in business financing, as dividends are not tax deductible.[21]

- The integration of PIT and CIT, in order to avoid double taxation of dividends.

- The taxation of realized income instead of earned income (even though earned capital gains can be used as guarantees, and therefore generate real income).

[19] For example, non-realized capital gains are technically an income, but taxing them is highly problematic because the gain itself is very difficult to estimate if markets for all owned assets are not liquid, and especially because paying a tax on a non-realized (paper) gain might require sums of real money that the taxpayer will often be able to acquire only by selling the asset. Taxation is therefore postponed until realization.

[20] He argues that a key aspect of consumption base systems, the expensing of investment, can be included in an income tax systems, and that the remaining differences having a much less significant impact, most of the efficiency gains do not necessarily need a complete shift.

[21] The issue of debt bias is in fact much more complex, and linked to the treatment of interests and dividends at the personal level, as the cost of capital (debt and equity) to firms will depend on how interests and dividends are taxed at the personal level. See IMF (2009) for a comprehensive discussion of these issues.

Box 2. Should we tax based on source or residence?

A key decision for income-based systems is whether country residents (individuals or corporations) should be taxed on their global income, or on the income they derive from national sources (Mullins, 2006). Most people would agree that in an income-based tax system, two neighbors earning the same revenue, having similar socio-economic and family situations, and consuming more or less the same basket of public goods (schools, etc.) should, on equity grounds, pay similar taxes. Yet, if neighbor A earns his income from foreign investments and neighbor B from a job at the local supermarket, A will pay no tax at all under a pure source system, as his income is not earned from a domestic source. Such considerations weighed heavily in pushing many western tax systems towards a residence-based system (residence is often defined as 183 days of physical presence in the country – a notable exception is the USA, where citizens are deemed residents, wherever they live). The fact that many of those countries were also large capital exporters also provided governments a strong incentive to tax foreign earnings of domestic companies, while some capital-receiving countries were content with a source-based system.

Yet, residence-based systems can also generate tremendous inequities and complexity, and as a result they have been modified to evolve into hybrid source/residence systems, most notably for corporate income. Indeed, residence-based systems suggest for example that a foreign company obtaining a domestic contract will pay no local tax on it, hence an undue competitive advantage. It also suggests that a foreign income which, for some reason, was already taxed abroad will again be taxed at home. Such issues emphasized the need to standardize international practices and have prompted the development of various concepts such as “permanent resident establishments” (to be sure that foreign companies regularly operating on the domestic market are made residents), withholding at source (for irregular operations of individual alien residents, or foreign companies with no permanent establishments), deductions for foreign taxes and non-double taxation treaties, etc. For such practical reasons, most tax systems have become hybrids residence/source systems, mostly in connection to capital-related flows (profits, dividends, interests, capital gains).

Globalization, however, is posing new challenges to the current residence/source balance. On one hand, the greater ease with which some corporations can decrease their tax bill by setting up residence in low-tax jurisdictions (despite complete absence of any operations in these jurisdictions) has considerably eroded the tax base in many countries (especially for countries with low administrative capacities) and the very reliability of the residence principle as a rule of taxation. On the other hand, while increasing integration of multinationals’ operations has created genuine difficulties determining the source of income, it also made it easier to shift the source solely for tax planning purposes, often through aggressive transfer pricing practices. Although there are no concerted answers on those issues yet, some governments have reacted by shifting to source taxation of capital income, as determining foreign source capital income proved too difficult (see IMF (2014a) for a discussion of these issues). Formulary apportionment of profits (as exists between Canadian provinces) is also being explored, notably in the proposal for a Common Consolidated Corporate Tax Base in the European Union (it was rejected by the OECD, however).

Most importantly, increasing efforts to share information (notably with low tax jurisdictions) have, along with other substantive issues, been at the center of recent OECD-led initiatives on so-called “Base erosion and profit shifting” practices (see < http://www.oecd.org/ctp/beps.htm >). Closely following developments in this area and adapting the tax system to new norms should therefore figure high on the agenda of any tax jurisdictions relying on income taxes.

C. Recent tax policy reform proposals

24. **There are many dimensions to fundamental tax reform proposals.** Many proposals can be seen as attempts to arrive at an equitable way to tax consumption or at least to avoid some of the double taxation implicit in the taxation of capital income. Others are more targeted in nature and attempt to fix perceived biases, inequities and unnecessary complexities in current tax systems. These proposals are reviewed here, before we turn to an overview of recent tax reforms in Section III.D. As we shall see, very few countries, if any, have adopted any of the "models" in their pure form and fairly few in their less than pure forms. Yet, regardless of the loose linkages between proposals and actual implementation, understanding what drives the reforms helps explain their logic and assess their results and overall direction.

Base-broadening and rate-lowering

25. **A simple, yet important, proposal has been to remain within the existing tax system, but to broaden its base and lower the rates.** Although taxing consumption should be better than taxing income, this still leaves much to improve to better tax both without changing the tax mix. Indeed, there are many different types of consumption and income and perhaps a first step to improve efficiency and simplicity is to eliminate distortions *within* the income and consumption tax bases. In practice, this has called for as low and uniform rates as possible on all types of consumption/income (albeit not necessarily the same on income and consumption), and therefore, given a fixed revenue target, for low rates on a wide base.[22] This approach has driven one of the most successful global reforms of the past 50 years: the spread of the VAT. It has also been a common denominator of practically all tax policy-related technical assistance provided by the IMF to Member Countries in the past 35 years, notably on income taxation. However, once the bases have broadened and rates flattened, the next step is to look at the consumption/income tax mix itself.

Personal expenditure taxes

26. **The personal expenditure tax** (PET) **essentially attempts to tax Y-S** (see Table 1) **by defining it in a workable manner at the personal level.** It therefore makes the consumption tax a "direct tax" that can be personalized in the same fashion as a PIT, as opposed to the retail consumption taxes and VAT, which are indirect and would be replaced by the PET, along with the PIT. Once a year, individuals would therefore add cash income from wages, transfers, cash returns on past savings, and any proceeds from assets sales (e.g., sales of stocks or property) and subtract any qualified savings, in order to determine their annual consumption. That amount of consumption could then be taxed with a progressive rate structure, dependents-related credits,

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[22] Although the focus of such reforms is on efficiency and simplicity, it is to be noted that they generally also improve equity, by eliminating preferential treatment for those who earn/consume untaxed income/goods and services.

etc. A major issue with this type of taxes is the definition of the qualified savings, which would need to accommodate a growing diversity of savings vehicles. The treatment of consumer durables, entrepreneurial income, loan financing and reimbursement, real estate, and other transactions would also require significant adjustments.

The Hall-Rabushka Flat Tax and its many sequels

27. **A second approach to direct taxation of consumption is the Hall-Rabushka Flat Tax** (HRFT)**.** The proposal (Hall and Rabushka, 1995; Bickley, J. M., 2008) essentially consists in taxing W + R + P + D – I (see Table 1) with a flat rate, as a replacement for any other income or retail sales tax or VAT. Wage income (W) would be taxed at the individual level, and businesses would be taxed with the same rate on their accounting profits (P) to which depreciation (D) and interests (R) would be added back in, and investments (I) subtracted. As made clear by the fact that C = W + R + P + D – I (see table 1), although the flat tax is implemented by taxing what appear to be measures of income, it is in fact ultimately a tax on consumption. In order to improve the equity of a flat tax, the HRFT also introduces a flat deduction for wage income. It is to be noted however, that it differs from the current income tax in many ways:

- Corporate profits are taxed on a cash flow basis, i.e., depreciation is added back in and investments are completely expensed (which could significantly increase the volatility of tax receipts).
- Interests are not tax-deductible, and the HRFT thus ends the debt bias of the CIT.
- Individuals pay taxes only on their wage income; any income from capital (savings) is excluded from the tax base.

28. **The HRFT has given rise to a series of related proposals.** The X-tax (Bradford, 2003), for example, applies more than one positive tax rate to labor income, with the top rate at the same level as the corporate rate. In some versions, it also varies in the treatment of imports and exports: while the HRFT included exports for the calculation of profits and allowed deduction of imports (thus making it a tax on all the value added within the firm – except salaries) the X-tax excludes exports from the calculation of profits and disallows the deduction of imports (thus making it a tax on the value added within the firm – except salaries – that is effectively consumed domestically). Other more or less related changes have also been proposed, such as the Business Transfer Tax, a subtraction VAT collected at the firm's level (so without a deduction for wages; the base is therefore the full W + R + P + D – I), aimed at replacing the PIT and the many retail-level sales taxes and the high corporate tax rate.[23]

[23] The Business Transfer Tax has been proposed at a high rate to replace CIT, retail sales taxes as well as PIT, and at a low rate, if other taxes are not completely eliminated.

29. **Yet other proposals owe more to the rhetoric of the HRFT and simply suggest to flatten the income tax brackets.** A key aspect of the HRFT is its comprehensive nature: it is strongly grounded in national accounting and clearly targets consumption. Yet, among many, one of its most appealing features has simply been the elimination of the top income tax brackets. Such "flat tax" proposals typically keep capital income in the definition of income and are not accompanied by the essential adjustments to CIT and elimination of other consumption taxes, which are essential to the functioning of the HRFT as a consumption tax.

Dual income tax systems

30. **The Dual income tax (DIT) has proven a useful way to move somewhat towards the consumption base, without completely upsetting the tax system.** Like the X-tax, it applies a progressive schedule and standard tax credits to labor income (wages, pensions etc.). However, it does not go as far as removing all taxes on capital income and retail consumption, and neither does it change the base of the CIT. Instead, it simply applies a low and flat tax on all capital-related income (dividends, interests, capital gains, rental, etc.), which is also used for the CIT and which corresponds to the rate at the lowest threshold of the PIT;[24] in other words, it is a clear return to schedular systems (see boxes 3 and 5). The treatment of the self-employed is in principle problematic in the DIT, as their income needs to be divided between labor and capital in the presence of a wide rate difference, but reasonable rules - even if somewhat arbitrary - can be devised.[25]

31. **The DIT has several advantages.** First, it takes into account the changes in capital mobility brought by globalization, by taxing less heavily the more mobile production factor. Second, it improves tax neutrality between different types of capital, notably by decreasing the difference between capital that can actually be taxed (and which is taxed at a high rate in the current systems) and capital that cannot be taxed (and which is not taxed at all in the current systems). By the same token, it also reduces the incentive for tax avoidance. Third, the lower rate on capital corrects for the positive bias that inflation has on revenue from that source. Fourth, but not least, it mitigates the double taxation embedded in capital income tax.[26]

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[24] In its purest form, the DIT applies a flat rate on net personal income of all sources (capital and labor) and on corporate income, and a surtax on labor income. An imputation system avoids double taxation of corporate profits. By extension, tax systems that generally apply a lower tax rate to capital incomes than to labor income (as described above) are called semi-dual.

[25] For example, a standard rate of return on capital can be applied to derive capital income and define the balance as labor income - see Sørensen (2007).

[26] The lesser progressivity that technically comes with the flat rate on capital has so far not proven a huge issue, as most redistributive aspects of the budget comes from public expenditures, and as PIT maintains its progressive structure under the DIT.

Box 3: Should we pool income of all sources before taxing it?

Canada and the United States have in principle comprehensive PIT systems, in which income of all sources (wages, dividends, etc.) is integrated and taxed with a unique progressive scale. Such systems put a strong premium on equity, arguing that a dollar of income contributes to the capacity to pay regardless of its source. On the other hand, schedular systems may apply a different rate to different sources of income. While such practices are difficult to defend on equity grounds and had tended to disappear in the recent past, they can be attractions on efficiency grounds, especially when it comes to capital income. The return of low and flat rates on non-consolidated capital income is indeed a key feature of the Scandinavian tax systems, and one that has been recommended by IMF technical assistance in a number of countries. Such "schedular" outcomes are also pursued in the Canadian tax system, with reduced rates on dividends and capital gains.

32. **The DIT remains, however, a long way from the more comprehensive consumption-based tax reforms, as essential parts of the tax system are not affected.** The CIT may notably retain its debt bias (depending on the strength of the dividend imputation system) and investment is not expensed; there are no conceptual implication of the DIT for retail-level taxes; and even the impact of rate reduction on capital income may be overstated, as many income-based systems already offer significant effective rate reductions though various credits, reduced rates, etc.

Other adjustments to the corporate income tax regime

33. **Apart from the more or less comprehensive reforms generally aimed at shifting the base to consumption, a series of more targeted reforms have been proposed to the CIT** (OECD, 2007)**.** These cover two broad fields: (1) the recalculation of corporate profits based on cash flows; (2) corrections of the current CIT debt bias.[27]

34. **There are three main proposals for cash flow taxes for corporations.** The R-base tax calculates cash flows as the difference between sales and the cost of production factors (including investments). It therefore excludes all financing items and treats debt and equity similarly. The R+F-base tax includes proceeds from loans in revenue, but interest payments and debt repaid are deductible. In the S-base tax, only the net distribution (dividends and share buyback minus issues of new shares) is taxable. These different regimes are mainly of interest as candidates to simplify the CIT, eliminate debt bias or taxing only abnormal profits (OECD, 2007; Meade, 1978).

35. **Other mechanisms have been designed to mitigate the debt bias in CIT.** The allowance for corporate equity allows deducting a "normal" return on equity from corporate profits (generally equal to shareholders' equity multiplied by the required return on debt). Under the assumption that the shareholder faces the same tax rate for interest, dividends and capital gains,

[27] One could also include the integration of CIT and PIT with various dividend imputation rules, but this will not be treated here.

the allowance for corporate equity will completely remove the debt bias if capital gains are taxed on an accrual basis. Because the latter is generally not the case, it has been proposed that the adjustment be at the shareholder level, though an allowance for shareholder equity. Both of these methods run into significant issues when the corporation and the shareholder are not in the same jurisdictions. The same issues applies to the third approach, the Comprehensive Business Income Tax, which removes interest deductibility at the corporate level, but exempts both dividends and interests at the personal level.

Box 4: Current tax systems in perspective

How have the considerations discussed here shaped western and especially North-American tax systems? The dominant model until the 1990s was residence-based global consolidated income taxation. Based on this approach, individual and corporate residents of a country add all their global income from all sources (labor, profits, capital gains, etc.), and subject the resulting annual total to an income tax schedule which in the case of individuals would be progressive and include various tax credits, for equity reasons.

However, tax systems often used conflicting rationales depending on the circumstances to justify revenue measures. For example, the introduction and later dominance of income taxes in high-income countries in the 20th century did not mark the end of consumption taxes (including customs duties). Likewise, while PIT is often based on the residents' global income of all sources, foreign corporations are generally taxed on a source base (otherwise local activity would not be taxed), and as a result, foreign income of local corporations is not taxed (to avoid double taxation), or subject to a foreign tax credit. In addition, income is rarely entirely consolidated, with capital income often benefitting from preferential treatment (often justified by inflation and long detention periods). Other elements borrowed from competing approaches were also brought in, such as deductions for retirement savings/pensions and ensuing capital accumulation remaining untaxed: while often seen as mere income deferral schemes, the fact that withdrawal from these accounts is often untaxed (or taxed at a lower rate, as retirement income often falls below the lower PIT thresholds) also mean that in fact, savings are not taxed, which brings the system closer to a consumption base.

D. Have the new proposals made an impact at country level?

36. **The ideas and rhetoric stemming from the above proposals have influenced tax policy in the world, but there have been remarkably few radical reforms.** Tax systems are always in constant evolution, but as significant reforms can influence overall revenue distribution and bring unusual revenue risks, decision-makers are therefore generally reluctant to move boldly. Three main reform episodes are nevertheless apparent in the past few decades: (1) the base-broadening, rate-lowering reforms of the mid-1980s; (2) the post-communism flat tax reforms of the mid-1990s, and; (3) the DIT reforms in the Scandinavian countries.

37. **Major tax reforms in the USA and the United Kingdom in the 1980s set off a wave a rate cuts and more or less successful attempts at broadening the tax base and simplifying tax systems.** The growing demands upon the tax systems as a redistributive and economic development tool in the 1960s and 1970s led to high rates and significant efficiency and equity issues related to the complexity of the tax systems and the presence of many tax incentives. The economic crisis of the early 1980s and the ensuing need to stimulate the economy, as well as a

growing literature on the detrimental impact of high PIT and CIT rates on savings and investments thus led to significant reforms in the United Kingdom (1984) and the USA (1986), mainly to lower the rates and broaden the base. While these reforms did not attempt to reform the structure of tax systems, they triggered a wider movement to increase the focus on their core function, i.e., to efficiently raise revenue for the budget. Significant sequels followed, notably in Australia, New Zealand, and Canada, as well as later in continental Europe and Asia. The impact of these reforms can easily be seen for CIT in Figure 3.1, and equally significant movements were noticed in top PIT rates, which decreased from 50 percent to 28 percent in two years in the USA. Of all significant reform movements, this one probably remains the most powerful, widespread and long-lasting, probably because it eliminated the most glaring inefficiencies without altering the fundamental nature of the tax system. However, while no country yet seems to fundamentally challenge the overall direction of these reforms, growing concerns on rising income inequality have also motivated cautious discussions on the long term impact of the 1980s reforms (Auerbach and Slemrod, 1997; IMF, 2014b). This is most apparent in the emphasis on fairness given in recent discussions on tax reforms, and in the increase in PIT rates in many countries following the 2008/09 financial crisis.

38. **The end of communism provided an opportunity to test new ideas in the Baltic States and Eastern Europe, mainly centered on low and flat taxes.** Flat taxes were introduced among much wider economic and tax reforms first in the Baltic States (Estonia, Lithuania, and Latvia) and then in Russia, Georgia and other former Soviet-bloc countries (Keen, Kim, and Varsano, 2006). A striking feature of these reforms is their wide differences. Indeed, many of these countries maintained significant wage taxes and other social contributions (which in fact eliminated the flatness of the schedule); excises; consumption taxes; income-based CIT (as opposed to cash-flow taxes); inclusion of capital income in revenue; significant base-related and other exemptions; and other such features; thus offering many points of divergence and non-conformity to the HRFT. In fact, their only common point is some form of unique and low rate on a more or less comprehensive definition of income, with the result that it is still unclear as to whether the reforms were motivated by the “lowness” or the “uniqueness” of the rate. While the impact on government revenue, compliance, equity, income distribution and other important aspects of taxing income has not been consistent (and understandably much dependent on the performance of the tax system they replaced), none of these systems has either conceptually or practically dealt with the key issue of taxing capital income, which was an important motivation of the flat tax in the first place. Despite the strong rhetoric accompanying this reform movement, its impact has remained limited and its effects empirically ambiguous (see Ivanova et al., 2005) and Gorodnichenko et al., 2008). It is also far from clear that other countries would want to face the tremendous transitional issues associated with such reforms, unless faced with the type of historical and political upheaval that Eastern-bloc countries then went through.

39. **A narrowing tax base and the prospect of losing preferential access to its traditional markets convinced Mauritius adopt a simple one-rate system.** An interesting sequel of the

flat tax movement has been the convergence of the PIT, CIT and VAT rates in some countries, notably Slovakia and Mauritius.[28] While there is no theoretical underpinning that justifies equating the VAT rate with CIT or PIT, the move towards a single-rate tax system (at least for the main taxes) has been seen as a potent symbol of a simple tax system. There is, however, little empirical evidence that such convergence has improved the performance of the tax system or of the economy.[29]

40. **Difficult macroeconomic conditions motivated Scandinavian countries to better take into account the impact of globalization on their tax systems through a DIT.** In a striking policy shift, Finland and Norway, and to a lesser extent Sweden and Denmark, moved away in the early 1990s from the then prevalent global income approach to taxation and implemented instead a schedular tax system (see boxes 3 and 5) whose main characteristics is to apply progressive rates to labor income and a low flat rate (in principle equivalent to the rate of the lowest PIT bracket) to a wide definition of capital income (interest, dividends, capital gains, rents, royalties and business profits). Key benefits of the DIT are the efficiency gains that come with taxing the less mobile production factor (i.e., labor) at a higher rate in a world where capital has become very mobile (especially in the context of a small open economy), and the capacity to retain progressivity on the labor factor. The DIT also brings the tax system closer to the consumption base, although corporations remain taxed on their accounting income (i.e., not on a measure of cash flows) and capital income is not completely excluded (which can be seen as an equity-motivated backstop). A core conceptual difficulty with the DIT however, is the separation between labor and capital income of the self-employed, although in practice this issue has been dealt with satisfactorily, albeit imperfectly (Sørensen, 2007). Although so far the DIT has not had the impact of the 1980s reforms, it does represent an important conceptual shift in tax policy which is not at odds with the concepts of base-broadening and rate-lowering. Dual-type tax systems have also been recommended in many IMF technical assistance reports, and it is expected that DIT system will continue to exert a significant influence over the coming years.

[28] VAT, CIT and flat PIT rates are 15% each in Mauritius. Personal income includes capital income, but capital gains are not taxed.

[29] In the case of Mauritius, empirical estimations of the impact of the tax reform are made even more difficult by the presence of a framework that helps channel India- and Africa-bound investments through Mauritius.

Box 5. The Dual and Semi-dual income tax systems: recent developments

Besides the base-broadening/rate-lowering reforms of the 1980s and the spread of VAT in the past 35 years, the introduction of DIT systems is perhaps the most noticeable and potentially important recent tax policy innovation, both conceptually and for its actual impact. Indeed, the flat tax reforms of the post-communist transition were not as radical as initially thought (in an HRFT sense), and given their main focus on income tax (i.e., regardless of wage and consumption taxes), they appear more like extensions of the rate-lowering/base-broadening movement (save a few noticeable cases). The DIT reforms however, mark a clear shift in tax policy design, and are well adapted to the globalization of capital markets, which is a key aspect of the current economic context. They can also be consistent with base-broadening and rate-lowering, and they constitute for most countries a less risky and radical alternative than other fundamental tax reform options.

The DIT system was first implemented in Denmark in 1987. Sweden (1991), Norway (1992) and Finland (1993) followed suite, but none of these countries has a pure DIT system (see table below). Sweden and Norway are generally regarded as being the closest to it and Denmark is regarded as having drifted back towards a global tax system. No other country has explicitly made the shift to a DIT, but many have borrowed the idea of preferential treatment of capital income. Austria, Belgium and Italy implemented a final withholding tax on interest income and dividends, keeping labor and earned business-related labor income on a progressive schedule. The Netherland also implemented a “Box” system, which is essentially a way to implement a schedular system whereby different types of income are taxed at different rates (with notably different rates for closely held and portfolio investments).

	Denmark	Sweden	Norway	Finland
PIT rates				
- Labor	Prog. up to 55.6%	31% to 57%	27% to 39%	23% to 54.25%
- Capital	36.5% to 42%	30%	27%	30% to 32%
- Cap. gains	27% to 42%	30%	27%	30% to 32%
CIT rate	24.5%	22%	27%	20%

Source: Deloitte (International Tax highlights).

Although the idea of taxing capital income at a lower rate has attracted criticism on equity grounds, Nielsen and Sørensen (1997) looked at the efficiency/equity property of the DIT systems and concluded that higher taxation of labor income might be warranted on equity grounds, as returns to investments in human capital are otherwise not taxed. While the debate is likely to continue, the fact that neither current systems nor the DIT are applied in their pure form calls for caution. Indeed, preferential treatment of capital income is already common in global income systems, notably as a protection against inflation and to mitigate the consumption bias of income taxation. Transition from global income tax systems to DIT has also attracted an interesting literature, notably for Canada (Mintz ,2006; Sørensen, 2007). In general the transition involves to first reduce and align all capital income tax rates and to streamline their treatments (notably with regards to various exemptions), and then to introduce rules to split the income of self employed and other non-corporate business income into labor and capital components. In any case, careful and detailed planning is necessary.

41. **Other fundamental proposals remain generally untested, but certain CIT adjustment met with limited success.** Although highly attractive from an efficiency and equity point of view, PETs have only been briefly tried twice, in India and Sri Lanka in the 1960s (and again in Sri Lanka in 1976/77), and in both countries only as a complement to existing taxes. It has been

rejected there and later in the USA and in most other countries that considered it, on the back of administrative difficulties (in defining savings, for example, but most notably regarding very difficult transitional issues) and and international coordination. Likewise, the CBIT was never tried, perhaps as it involves reduced payments by banks and difficult transitional issues related to outstanding debt. Corporate cash flow taxes however, have found applications in the peculiar context of the oil business (e.g., Norway and UK), and in Estonia with an S-base tax, but generally remain untested instruments, especially in the North American context (except for Mexico's *Impuesto Empresarial a Tasa Única*, which was implemented from 2008 to 2013). Allowances for corporate or shareholder equity, or allowance for corporate capital have had more success, with Austria, Belgium, Italy, Croatia, Brazil, Bolivia, and Norway having attempted to limit the debt-bias in standard CIT through them, with some positive results (Klemm, 2006; OECD, 2007), but Austria and Croatia nevertheless backtracked.[30,31] Efforts targeted at specific industries have also attracted renewed interest after the financial crisis, notably for the banking/financial sector,[32] especially given its macroeconomic importance, its role in the leveraging/deleveraging strategies as well as debt bias, and its VAT exempt status.

[30] It was abolished and reintroduced in Italy.

[31] Other attempts to limit the debt bias have relied on a host of thin capitalization or earning stripping rules, but these are more arbitrary constraints within the existing system than a change of system.

[32] Although these issues are not directly connected to CIT, they remain important for income tax reform, given the broad scope of current discussions on the taxation of the banking/financial sector.A major proposal is now to implement a Financial Activities Tax as a sort of value added tax on the financial sector (otherwise usually VAT-exempt), something akin to Québec's *Taxe compensatoire pour une institution financière qui est une société*. These issues are discussed in details in Claessens et al. (2010).

IV. SOME CONSIDERATIONS FOR THE COMMISSION

42. **This note does not make any recommendation for the tax reform in the Province of Québec.** However, in light of the above discussion, notably regarding *base-broadening/rate lowering* and the *income* vs. *consumption* approach to taxation, Members of the Commission might want to consider certain elements of the current institutional, economic and demographic context of the province that will have an influence over the consumption and income tax bases.

43. **The Province's fiscal framework is shaped by Canadian federalism and its location in North America.** Low consumption taxes and the inclusion of capital income in a residence-based global income system is a key characteristic of North-American tax systems and any divergent policy should probably be implemented cautiously and incrementally. For example, transformative reforms such as an HRFT could pose significant coordination issues with the federal government, and implementing a DIT system would probably demand clearly defined steps and timeline. Although tilting the balance towards consumption is broadly desirable for reasons discussed above, doing so gradually and within the parameters of the existing system could be easier and less disrupting.[33]

44. **Because the Province of Québec is a small open economy, factor mobility and cross-jurisdictional cooperation will remain key concerns for tax policy.** Capital is highly mobile in and out of the province, hence its tax treatment should be at least comparable to OECD and main economic partners' averages. In this respect, low CIT/PIT rates made possible by broad bases have been shown, since the mid-1980s, to do more for investment as a whole than targeted measures whose effects is more often than not to narrow the tax base. Maintaining favorable treatment of savings in the PIT is also paramount, if necessary by taxing more heavily the less mobile production factor (and perhaps compensating through targeted spending). For similar reasons, and regardless of how the source/residence issues will affect international tax policy, information sharing will become an ever important requisite for the efficient conduct of tax administration, hence the need for close cooperation with other tax jurisdictions.

45. **The province will undergo a phase of rapid ageing for the next 15 to 20 years, before the situation stabilizes**. On one hand, the increase in the dependency ratio (Figure 5) suggests that the importance of labor as a tax base could suffer (pension payments should increase, but their effective tax rate is generally lower). On the other hand, to the extent that current and future retirees consume their accumulated wealth, the relative importance of consumption as a tax base (and probably also inheritance) should increase. In addition, increasing labor force participation

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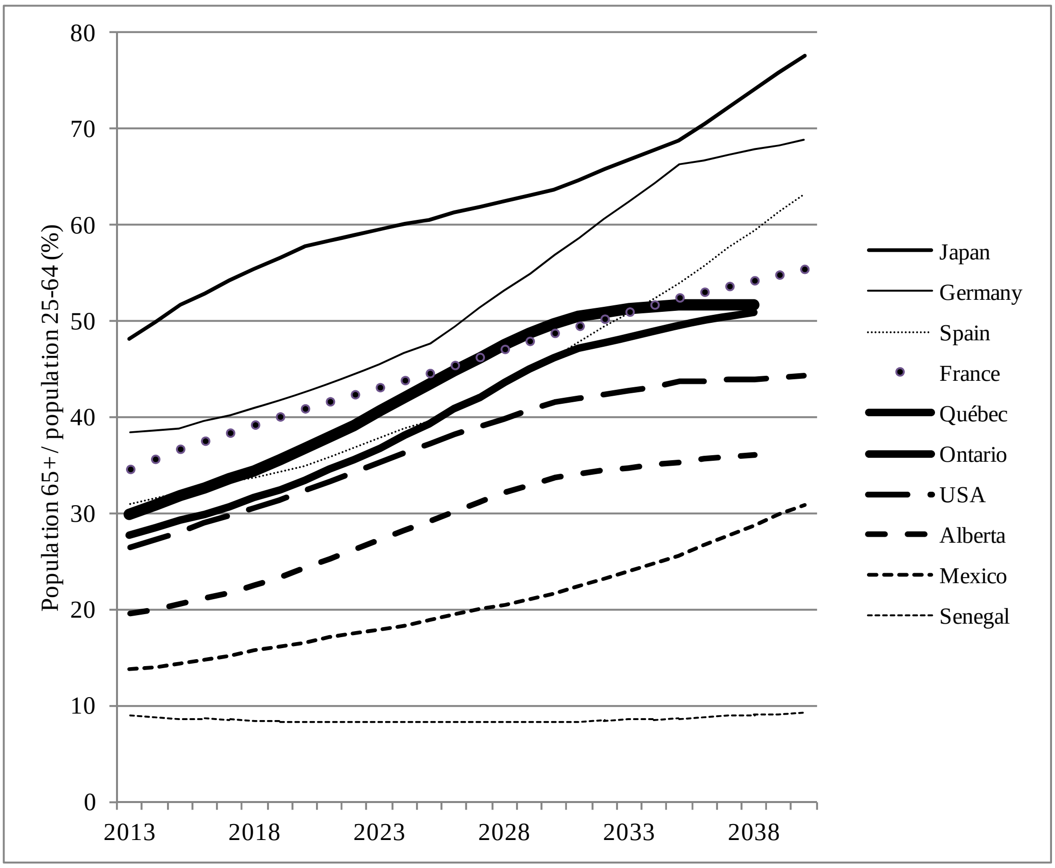
[33] Provincial authorities might also find that such incrementalism is not at odds with a gradual move towards a form of DIT.

through lower wage taxes could mitigate somewhat the rise in the dependency ratio. All these factors point to a greater reliance on the consumption base.[34]

Figure 5: Dependency ratio 1/



Source: Statistics Canada, World Bank, and IMF staff calculation.
1/ World Bank data was intrapolated.

46. **Productivity and investments lag behind North American averages**. A growing body of literature on productivity in the Province of Québec suggests that significant private and public investments are needed to bridge the productivity gap between the Province of Québec and the rest of North America (Gouvernement du Québec, 2008; Centre sur la productivité et la prospérité, 2014). Although it is far from easy to establish a clear link between greater reliance

[34] Some may argue that a shift to the consumption tax base might be inequitable for holders of existing savings, as these savings have already been taxed at the time the income was originally earned. However, the existence of a debt that in large parts financed current consumption (Gouvernement du Québec, 2009) between 1980/81 and 1998/99 could be seen as a mitigating factor, as current savings holders benefitted, in a generational sense, from the debt. It has also been argued that the fairness argument may have been overstated (Gale, 1999).

on consumption taxes at provincial level, additional savings and ultimately higher investments and growth, making the tax system as conducive to growth as possible (while avoiding base-reducing incentives per se) could, along with other elements of a wider growth strategy, help the province face its demographic challenges. In this sense, the province's greater fiscal autonomy provides a better control over the overall tax mix.

47. **The tight situation of the province's public finances suggests caution.** The Province of Québec's tax burden, spending profile and debt are generally higher than in other Canadian provinces, but not unlike in many European countries, and the public finance situation remained in balance between 1998/99 and the 2008/09 financial crisis (Gouvernement du Québec, 2009; Deslauriers and Gagné, 2013). However, greater challenges lie beyond the current post-crisis effort to return to a balanced budget. Indeed, growing health care expenditures[35] are in large part preventing the province from realizing the surpluses needed to cut a debt that was largely accumulated between 1980/81 and 1998/99 (Gouvernement du Québec 2009; Ouellette and Petit, 2014). Aversion to downside revenue risk is therefore high, and bold, swift or untested reforms should probably be contemplated with care.

48. **The challenges ahead are difficult and the path to a brighter fiscal future is relatively narrow and asks for carefully balanced choices**. However, the Province of Québec has a long tradition of fiscal innovation and world-class policy design capacity. It was the first province to use direct taxation in 1882 (Finances Québec, 2014b). In the 1950s, it pioneered the provincial income taxes whose impact has been tremendous on the whole Canadian fiscal landscape (Courchesne, 2010). It more recently innovated again with provincial-level value-added taxes, which serve as a benchmark for other national and sub-national governments seeking similar solutions around the world. Hard times are generally auspicious for innovative thinking, and it might just be the right time to prove the rule once more.

[35] Health care represented 30% of program spending in 1981, and 45% in 2009 (Gouvernement du Québec, 2009). Preliminary data for 2013/14 indicated that they had reached 48.5% of program spending (Finances Québec, 2014c). Some estimates predict they will grow to close to 70 percent of total provincial government revenue by 2030 (Clavet et al., 2013).

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