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Disputing Denied Downward Transfer-Pricing Adjustments

Daniel Sandler and Lisa Watzinger*

PRÉCIS

Cet article examine quel forum est approprié pour contester un refus de redressement à la baisse des prix de transfert en vertu du paragraphe 247(10) de la Loi de l'impôt sur le revenu (« la LIR »). Il décrit tout d'abord les divers scénarios pouvant donner lieu à une demande de redressement à la baisse des prix de transfert, examine la délégation du pouvoir d'accorder le redressement aux fonctionnaires de l'Agence du revenu du Canada (ARC), puis présente la pratique administrative de l'ARC quant aux circonstances dans lesquelles accorder ces redressements. Il explore ensuite si la Cour fédérale ou la Cour canadienne de l'impôt est le forum approprié pour se prononcer sur un refus de redressement à la baisse des prix de transfert.

Pour les litiges en vertu de la LIR, la division de la juridiction entre les deux cours est généralement bien définie. La Cour de l'impôt a la juridiction exclusive de déterminer le bien-fondé d'une évaluation tandis que celle de la Cour fédérale est d'examiner les décisions discrétionnaires du ministre du Revenu national ou des fonctionnaires de l'ARC auxquels les pouvoirs du ministre ont été délégués. Cette division des juridictions est moins claire pour les litiges se rapportant au refus d'un redressement à la baisse des prix de transfert.

Le paragraphe 247(10) est la seule disposition de la LIR en vertu de laquelle la détermination juste du revenu d'un contribuable est à la discrétion du ministre. L'exercice du pouvoir discrétionnaire ministériel laisse penser que la Cour fédérale est le forum approprié pour contester le refus d'un redressement à la baisse des prix de transfert. Cependant, le paragraphe 247(11) spécifie que le règlement des litiges liés aux prix de transfert en application de la partie XVI.1 de la LIR se fait au moyen des processus d'opposition et d'appel à la partie I de la LIR. Le libellé au paragraphe 247(11), conjugué à l'historique du texte, les restrictions de la juridiction de la Cour fédérale et les considérations pratiques quant aux litiges liés aux prix de transfert laissent tous entendre que la Cour de l'impôt est le forum approprié pour examiner le refus d'un redressement à la baisse des prix de transfert. La jurisprudence historique de la Cour de l'Échiquier appuie cette conclusion.

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Il arrive cependant que certains scénarios de refus du redressement à la baisse des prix de transfert ne donnent pas lieu à l'envoi d'un avis de cotisation et, par conséquent, qu'il n'existe pas un droit d'appel clair devant la Cour de l'impôt. Afin d'assurer que la Cour de l'impôt possède la juridiction d'examiner tous les refus de redressements à la baisse des prix de transfert, et non pas seulement ceux qui donnent lieu à une cotisation, les auteurs recommandent que le texte de la partie XVI.1 de la LIR soit modifié afin d'exiger du ministre qu'il envoie un avis de cotisation dans tous les cas de refus de redressement à la baisse des prix de transfert.

ABSTRACT

This article considers the appropriate forum for disputing a denied downward transfer-pricing adjustment under subsection 247(10) of the Income Tax Act ("the ITA"). It begins by describing various scenarios in which a request for a downward transfer-pricing adjustment may arise, examines the delegation to officials at the Canada Revenue Agency (CRA) of the authority to grant the adjustment, and outlines the CRA's administrative practice on when to grant such adjustments. It then explores whether the Federal Court or the Tax Court of Canada is the appropriate forum to adjudicate a denied downward transfer-pricing adjustment.

For disputes under the ITA, the division of jurisdiction between the two courts is generally well defined. The Tax Court has the exclusive jurisdiction to determine the correctness of an assessment whereas the Federal Court has the exclusive jurisdiction to review discretionary decisions of the minister of national revenue or officials at the CRA to whom the minister's powers have been delegated. This jurisdictional divide is less clear for disputes in respect of a denied downward transfer-pricing adjustment.

Subsection 247(10) is the only provision in the ITA under which the correct determination of a taxpayer's income is subject to ministerial discretion. The exercise of ministerial discretion suggests that the appropriate forum to dispute a denied transfer-pricing adjustment is the Federal Court. However, subsection 247(11) specifies that the mechanisms for resolving all transfer-pricing disputes under part XVI.1 of the ITA are through the objection and appeal process in part I of the ITA. The language of subsection 247(11), coupled with its legislative history, the restrictions on the Federal Court's jurisdiction, and practical considerations regarding transfer-pricing disputes, all suggest that the Tax Court is the appropriate forum to consider a denied downward transfer-pricing adjustment. Historical case law from the Exchequer Court supports this conclusion.

However, there are scenarios in which a denied downward transfer-pricing adjustment may not result in a notice of assessment being issued, and therefore no clear right of appeal to the Tax Court may exist. To ensure that the Tax Court has the jurisdiction to review all denied downward transfer-pricing adjustments, and not only those that result in an assessment, the authors recommend that part XVI.1 of the ITA be amended to include language requiring the minister to issue an assessment in all cases in which a downward transfer-pricing adjustment is denied.

KEYWORDS: TRANSFER PRICING ■ ADJUSTMENTS ■ DISPUTES ■ JURISDICTION ■ TAX COURT OF CANADA ■ FEDERAL COURT

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INTRODUCTION

In the context of legal disputes regarding the administration and enforcement of the Income Tax Act¹ (“the ITA”) the dividing line between the jurisdiction of the Tax Court of Canada and that of the Federal Court of Canada is generally clear. However, this is not the case for denied requests for downward transfer-pricing adjustments. Normally, the Tax Court has exclusive jurisdiction over disputes regarding the correctness of an income tax assessment, including answering the threshold question of whether the assessment is valid or statute-barred, and if valid, whether the taxpayer's tax liability (and therefore the computation of taxable income and income), as well as interest and/or penalties as assessed, is correct. The Federal Court, on the other hand, has exclusive jurisdiction over disputes regarding the manner in which the minister of national revenue² has exercised (or failed to exercise) various quasi-administrative powers under the ITA, including the minister's failure to grant relief under various taxpayer relief provisions, the denial of a tax refund, or the refusal of the minister to issue an assessment.

The enactment in 1998 of part XVI.1—Canada's transfer-pricing regime, and in particular subsection 247(10)—muddled those waters. Subsection 247(10) is the only provision in the ITA in which the correct determination of a taxpayer's income (and therefore the correct determination of tax) is subject to ministerial discretion. Even if a downward adjustment would result in the correct determination of a taxpayer's income, the minister can deny a downward transfer-pricing adjustment “under subsection [247](2) unless, in the opinion of the Minister, the circumstances are such that it would be appropriate that the adjustment be made.” Subsection 247(2) is the provision that requires the minister to make adjustments to the quantum

1 RSC 1985, c. 1 (5th Supp.), as amended.

2 Or, more precisely, the decision of a representative of the Canada Revenue Agency (CRA) who has the delegated authority of the minister under subsection 220(2.01) of the ITA.

of an amount reported by non-arm's-length parties in a transaction where the quantum is not in accordance with arm's-length principles. Given that subsection 247(10) affects the determination of a taxpayer's income, one would think that an assessment to which the application of this provision relates would be appealable by a taxpayer to the Tax Court, since it is within that court's exclusive jurisdiction to determine the correctness of the assessment. However, the effect of subsection 247(10) is to give the minister the discretion to grant or deny the request. Accordingly, even if a downward transfer-pricing adjustment would result in the correct determination of a taxpayer's income, the minister is not required to make the adjustment where the minister does not think that it is appropriate to do so. If the minister does not think that it is appropriate to grant a downward transfer-pricing adjustment request, an assessment may not follow, leaving the taxpayer without an assessment to which to object or appeal. Moreover, the Canada Revenue Agency (CRA) Appeals Branch has, in our experience, considered a notice of objection to be invalid where the only issue raised in the objection is a denied downward transfer-pricing adjustment.

In these circumstances, a question arises as to which forum has the jurisdiction to hear an appeal from a denied downward adjustment request and, if both courts potentially have jurisdiction, which is the more appropriate forum to hear the appeal. This article considers which court has the jurisdiction to hear a taxpayer's appeal from a denied downward transfer-pricing adjustment under subsection 247(10) and whether there are compelling reasons to amend the legislation to ensure that a right of appeal lies with the Tax Court.

CIRCUMSTANCES IN WHICH A DISPUTED DOWNWARD ADJUSTMENT MAY ARISE

As alluded to above, there may be instances where a denied downward transfer-pricing adjustment will produce no assessment.³ Such a result demonstrates the effect that subsection 247(10) has on determining the appropriate forum for review. To further put the determination as to the appropriate forum in context, the following scenarios illustrate various circumstances in which a dispute over a denied downward adjustment may arise:⁴

3 The minister also might effectively deny a request to alter the quantum of a taxpayer's income, even if the minister accepts that the request would lead to the correct amount of income and tax being assessed, where the taxpayer submits an adjustment request, such as an amended tax return or a T1 adjustment, within the normal reassessment period but beyond one year and 90 days from the date of the original assessment of the year. In such a case, the taxpayer does not have recourse to division J of part I to object to or appeal the minister's failure to issue a reassessment. The taxpayer's only recourse in these circumstances is to make an application for judicial review to the Federal Court. See Daniel Sandler and Allison Blackler, "(Can't Get No) Satisfaction? Look Beyond the Fairness Provisions," in *Report of Proceedings of the Seventieth Annual Tax Conference*, 2018 Conference Report (Toronto: Canadian Tax Foundation, 2019), 33:1-30.

4 We have seen many of these examples in practice. None have, at least as yet, resulted in a judgment regarding the jurisdiction of the Tax Court or the Federal Court. The Tax Court is

1. where the taxpayer initiates the request under subsection 247(10) and the CRA declines to grant the request;
2. where the CRA agrees that it would be a natural consequence of its audit position to grant a downward adjustment but declines to do so;
3. where the taxpayer objects to its own filing position and by doing so is effectively requesting a downward adjustment under subsection 247(10);
4. where the CRA has assessed an upward adjustment to which the taxpayer objects and the taxpayer argues not only that the upward adjustment is incorrect, but also that a downward adjustment is the correct adjustment; and
5. where the taxpayer requests a downward transfer-pricing adjustment in a loss year and
 - a. requests a loss determination for that year on the basis that the loss (even as originally filed) is incorrect and the minister either
 - i. issues the loss determination (equal to the filed position), to which the taxpayer objects, or
 - ii. refuses to issue the notice on the basis that the minister agrees with the filed position; or
 - b. the taxpayer simply applies a larger loss to a future year on the basis of the downward adjustment to which the taxpayer believes it is entitled, is reassessed to deny the larger loss, and objects to the reassessment.

Several observations can be made regarding these scenarios. First, in scenarios 1, 2, and 5(a)(ii), presumably the minister will issue a letter denying the downward adjustment request but will not issue a notice of assessment, or a notice of loss determination in example 5(a)(ii), related to that denial. If no assessment or loss determination is issued, the taxpayer must consider how to dispute the decision. Sections 165 and 169 of the ITA, respectively, permit a taxpayer to object to an assessment or a notice of loss determination by way of administrative appeal to the CRA and (if not resolved at objection) by way of appeal to the Tax Court. If no notice of assessment or loss determination is issued, is the taxpayer's only recourse to file an application for judicial review of the minister's decision in the Federal Court? Alternatively, can the taxpayer argue that it has the right to object to the letter communicating the minister's decision under section 165 and appeal under section 169 because subsection 247(11) mandates that sections 165 and 169 (as well as other specified provisions in division I and the whole of division J and part I) apply part XVI.1 "with such modifications as the circumstances require"?

Second, if in either of the first two scenarios the denied downward adjustment is one of a number of matters that the CRA is auditing, one or more of those other matters may result in the minister issuing an assessment. The assessment would not

scheduled to hear a rule 58 application (Tax Court of Canada Rules (General Procedure), SOR/90-688a, as amended) on the question of jurisdiction on May 14, 2019 in *Dow Chemical Canada ULC v. The Queen*, court file no. 2017-2616(IT)G. This case involves the second scenario described in the text that follows.

refer to the denied downward adjustment (since no adjustment is made to the taxpayer's filed position with regard to the transactions that were the subject of the denied adjustment). In these cases, there is an assessment that the taxpayer can appeal to the Tax Court (by way of notice of appeal after filing a notice of objection), and the notice of appeal could include the denied downward adjustment as an issue in dispute. However, the timing of the reassessment relative to the minister's communication of the decision denying the downward transfer-pricing adjustment may affect the taxpayer's ability to dispute the denial and the choice of forum.

Third, while there is a clearer ability to appeal to the Tax Court in scenarios 3, 4, 5(a)(i), and 5(b), since the transfer-pricing adjustment figures within the notice of assessment or loss determination, given the uncertainty over the appropriate forum to adjudicate the denied downward adjustment, the taxpayer may want to appeal the assessment or loss determination to the Tax Court (after filing a notice of objection) and also seek judicial review of the minister's denial in the Federal Court.

Fourth, a taxpayer who is denied a downward transfer-pricing adjustment in a loss year—scenarios 5(a)(i), 5(a)(ii), and 5(b)—may be in a more favourable position from a procedural perspective than a taxpayer who has been denied a downward adjustment in a taxable year (assuming that no other issues are in dispute). A taxpayer in a loss-year scenario, unlike a taxpayer in scenario 1 or 2, can simply apply the increased loss (that the taxpayer has determined) to a future year, and object to and appeal an assessment or reassessment that denies the increased amount of the loss (as in scenario 5(b)).

Fifth, and last, if a taxpayer in either of the first two scenarios or in scenario 5(a)(ii) does not have a right to appeal to the Tax Court while a taxpayer in any of the other scenarios does, the former taxpayer is not being afforded the same procedural remedies as the latter taxpayer in substantially similar circumstances. Given that the procedural steps, including the evidence available at the hearing, in an appeal to the Tax Court differ significantly from those in an application to the Federal Court for judicial review, there needs to be a compelling reason for taxpayers to be treated differently in scenarios 1, 2, and 5(a)(ii) versus the other scenarios. As discussed further below, we do not believe that there is such a compelling reason based only on whether an assessment or a loss determination has been issued to the taxpayer. Rather, we suggest that there are compelling reasons for the review of any disputed downward transfer-pricing adjustment to be heard by the Tax Court and that subsection 247(11) should be amended to specifically so provide.

DELEGATED AUTHORITY TO GRANT DOWNWARD ADJUSTMENT REQUESTS

The officials at the CRA who have (or who lack) delegated authority to make the minister's decision under subsection 247(10) and the CRA's position as to that authority add an additional level of complexity. Under subsection 220(2.01) of the ITA, "[t]he Minister may authorize an officer or a class of officers to exercise powers or perform duties of the Minister under this Act." Generally, the deputy commissioner and the assistant commissioner of the CRA have the authority to exercise the

powers and perform the duties of the minister; in essence, they may bind the minister. In addition, specific individuals have been given delegated authority to carry out the functions of the minister as required throughout the ITA. With respect to subsection 247(10) of the ITA, the following individuals have been given delegated authority:⁵

- *Field positions*: the director of a tax services office and the assistant director of audit
- *Headquarters positions*: the deputy assistant commissioner of the Compliance Programs Branch, the director general of the International and Large Business Directorate, the director of Competent Authority Services, and the director of the International Tax Division

These are all senior officials within the CRA. The list does not include the individuals typically responsible for a transfer-pricing audit, such as auditors, team leaders and managers in the audit division, the large-file case manager, or subject-matter specialists such as economists. The limited list perhaps reflects the importance of the decision made under subsection 247(10), and perhaps ensures a degree of consistency in the exercise of the discretion.

However, no one in CRA Appeals has delegated authority under subsection 247(10), and this is problematic. A member of the audit team may request the assistant director of audit in the tax services office to consider, and if advisable make, a downward adjustment. In contrast, no member of the Appeals Branch (at a tax services office or at CRA headquarters) can make this determination, although an appeals officer could (at least in theory) refer the matter to the assistant commissioner, Appeals Branch (or the deputy commissioner of the CRA) to exercise the authority to issue a downward adjustment. In practice, however, we have found that CRA Appeals takes the position that the Appeals Branch has no authority to review a denied downward adjustment, and considers a notice of objection in which a denied downward adjustment is the only issue in dispute to be invalid. As a result, taxpayers will typically find that they must go to court in order to have their request for a downward transfer-pricing adjustment resolved.

COMPETING FORUMS OVER DENIED DOWNWARD ADJUSTMENTS

A taxpayer who has a denied downward transfer-pricing adjustment must consider which is the appropriate forum in which to seek redress. Notwithstanding the procedural difficulty where an assessment has not been issued, the challenge in determining the correct forum for review arises from the interaction of subsections

5 “Delegation Under the Income Tax Act: Administrative Consolidation,” updated to April 5, 2016 (www.canada.ca/en/revenue-agency/services/tax/technical-information/delegation-powers-duties-functions/delegation-ministerial-powers-duties-functions/delegation-under-9.html).

247(2) and (10), which deal with the quantum of transfer-pricing adjustments, with subsection 247(11), which concerns the governance of transfer-pricing disputes. Subsection 247(2) requires adjustments to be made to transfer prices when necessary to ensure that they reflect the arm's-length price. That provision concerns the correctness of a taxpayer's transfer price, and therefore the correctness of the taxpayer's computation of income. However, subsection 247(10) mandates that a downward adjustment is to be made only where the minister considers it to be appropriate in the circumstances. Thus, the minister has the authority to deny a downward adjustment notwithstanding that such adjustment may result in the correct computation of the taxpayer's income, and therefore the correct computation of tax. If subsection 247(10) is accepted as an exercise in ministerial discretion, one would expect that the appropriate forum in which to challenge the minister's decision is the Federal Court, by way of an application for judicial review of the decision. However, subsection 247(11) incorporates certain provisions of division I (including the provisions dealing with the minister's power to assess and reassess, as well as the objection provisions) and all of division J (dealing with appeals to the Tax Court and the Federal Court of Appeal) into part XVI.1 (the transfer-pricing provisions) "with such modifications as the circumstances require." Consequently, it is arguable that the Tax Court's jurisdiction to hear an appeal from a denied downward adjustment flows from subsection 247(11), since the denial is pursuant to a provision found in part XVI.1.

Parliament has made some notable changes to Canada's transfer-pricing provisions since they were first introduced in subsection 69(2) of the ITA, in particular in respect of downward adjustments. The regime in section 247 as it now reads received royal assent on June 18, 1998, and is applicable to fiscal periods that began after 1997. Subsection 247(2) replaced former subsection 69(2),⁶ which provided:

Where a taxpayer has paid or agreed to pay to a non-resident person with whom the taxpayer was not dealing at arm's length as price, rental, royalty or other payment for or for the use or reproduction of any property, or as consideration for the carriage of goods or passengers or for other services, an amount greater than the amount (in this subsection referred to as "the reasonable amount") that would have been reasonable in the circumstances if the non-resident person and the taxpayer had been dealing at arm's length, the reasonable amount shall, for the purpose of computing the taxpayer's income under this Part, be deemed to have been the amount that was paid or is payable therefor.

Subsection 69(2) dealt only with "upward adjustments" that arose in certain circumstances—specifically, where a taxpayer overpaid an amount to a non-arm's-length non-resident. In these circumstances, where the price agreed to by related parties resulted in an underreporting of the taxpayer's income, the minister could reassess the taxpayer to increase its income to an amount based on the arm's-length price.

6 Subsection 69(2) was enacted in 1971 (SC 1970-71-72, c. 63, section 1) and repealed in 1998 (SC 1998, c. 19, section 107(1)).

Although former subsection 69(2) did not deal specifically with downward adjustments, presumably the minister had the ability to reduce a taxpayer's income in determining the amount of tax payable when assessing under section 152 of the ITA. Nevertheless, the current provisions have eliminated any doubt as to the minister's ability in this regard.

Part XVI.1 of the ITA not only expanded the circumstances in which transfer-pricing adjustments arise (that is, to include any transaction or series of transactions involving the taxpayer and a non-arm's-length non-resident), but also eliminated the requirement that the amount reported by the taxpayer be "greater than the amount . . . that would have been reasonable in the circumstances if the non-resident person and the taxpayer had been dealing at arm's length." Instead, subsection 247(2) provides that any amounts relevant for the purposes of the ITA "*shall be adjusted . . . to the quantum or nature of the amounts that would have been determined [emphasis added]*" if the persons had been dealing at arm's length. In other words, subsection 247(2) provides for an upward or a downward adjustment to income (or other amounts relevant for the purposes of the ITA) where non-arm's-length transactions result in amounts that are different from those that would be agreed to in arm's-length transactions.

Notwithstanding that the language of subsection 247(2) mandates an adjustment—up or down—to reflect the arm's-length amount, subsection 247(10) expressly gives the minister the discretion to deny a downward adjustment unless the minister considers that it would be appropriate in the circumstances.

APPROPRIATE CIRCUMSTANCES FOR THE MINISTER TO GRANT A DOWNWARD ADJUSTMENT

For the minister to grant the downward adjustment request, the minister must consider the circumstances to be appropriate. Unfortunately, the December 1997 technical notes⁷ to subsection 247(10) do not clarify what is meant by "circumstances" or provide any examples of what "appropriate" circumstances might be.

The CRA has provided its views with regard to the application of subsection 247(10) in *Information Circular* IC 87-2R, indicating that

the Minister may decide not to exercise his discretion under [subsection] 247(10) where:

- the taxpayer's request has been prompted by the actions of a foreign tax authority and the taxpayer has the right to request relief under the Mutual Agreement Procedure article of the applicable treaty; or
- the taxpayer's request can be considered abusive.⁸

⁷ Canada, Department of Finance, *Explanatory Notes Relating to Income Tax* (Ottawa: Department of Finance, December 1997).

⁸ *Information Circular* IC 87-2R, "International Transfer Pricing," September 27, 1999, at paragraph 26.

This circular refers taxpayers to IC 75-7R3, which outlines the CRA's general policy with respect to taxpayer-initiated adjustments that reduce tax payable.⁹ The general policy indicates that a refund will ordinarily be made upon receipt of a written request if¹⁰

1. the income tax return has been filed within the appropriate period;
2. the CRA is satisfied that the previous assessment was wrong;
3. the reassessment can be made within the four-year or seven-year period specified in subsection 152(4) or (6);
4. the requested decrease is not based solely on an increased claim for capital cost allowance or other permissive deductions where the maximum amount allowable was not claimed; and
5. the application is not based solely on a successful appeal to the courts by a taxpayer.

According to IC 87-2R, the first circumstance in which the CRA may deny a downward adjustment request occurs where the taxpayer is able to obtain relief under the mutual agreement procedure (MAP) of an applicable tax treaty. The CRA has indicated that it does not want the downward transfer-pricing adjustment to be used as a back door to the competent authority procedure. The CRA has declined a request for a downward adjustment that was initiated by a Canadian taxpayer where the corollary adjustment requested by the taxpayer's US subsidiary led to the US subsidiary being reassessed first. The CRA denied the request on the basis that the adjustment request was the result of the actions of another tax authority.¹¹

The second set of circumstances in which the CRA may not grant a downward adjustment request is where it considers those circumstances or the result of making such adjustment to be abusive. *Transfer Pricing Memorandum* TPM-03 provides two general and non-exhaustive examples of cases in which a request would be denied on this basis.¹² The first example is where repatriation is either not carried out or not carried out within a time frame acceptable to the CRA. The second example is

9 Ibid., at paragraph 27, referring to *Information Circular* IC 75-7R3, "Reassessment of a Return of Income," July 9, 1984.

10 IC 75-7R3, *supra* note 9, at paragraph 4. Since transfer pricing is not "an exact science" and an appropriate transfer price is a price within a reasonable range (see *Canada v. GlaxoSmithKline Inc.*, 2012 SCC 52, at paragraph 61), it is arguable that changing from one price to another price within the reasonable range could be considered an increase to a "permissive" deduction, whereas changing from a price outside the range to one inside the range could be considered the correction of an error that made the previous assessment "wrong."

11 See François Vincent and Michel Ranger, *Transfer Pricing in Canada*, 2018 ed. (Toronto: Carswell, 2018), at 323. See also *Teletech Canada, Inc. v. Canada (National Revenue)*, 2013 FC 572, discussed *infra* note 43.

12 *Transfer Pricing Memorandum* TPM-03, "Downward Transfer Pricing Adjustment Under Subsection 247(2)," October 20, 2003.

where such an adjustment may result in double non-taxation because there would not be a corresponding upward adjustment in the foreign jurisdiction.¹³ As can be seen from these examples, the CRA has interpreted “circumstances” to be the circumstances surrounding the downward adjustment request, as distinct from the quantum of the downward adjustment itself. Thus, the reason that the downward adjustment was denied arguably affects the determination of the appropriate forum in which to appeal the decision. One could argue that the Tax Court is the appropriate forum where the request was denied because the minister disputed its quantum, whereas the Federal Court may be considered the more appropriate forum where the minister accepted the quantum as correct but considered the circumstances of the downward adjustment request or the consequences of granting it to be abusive.

We will return in a later section to the question of the appropriate forum for consideration of denied downward transfer-pricing adjustments, and whether the jurisdiction should be split between the two courts depending on whether the dispute is over the amount of the adjustment or over the appropriateness of the adjustment in the circumstances. First, however, it is necessary to consider the statutory division of jurisdiction between the two courts as provided for in the Federal Courts Act¹⁴ (“the FC Act”) and the Tax Court of Canada Act¹⁵ (“the TCC Act”).

JURISDICTION OF THE TAX COURT OF CANADA AND OF THE FEDERAL COURT

Under section 12(1) of the TCC Act, the Tax Court has exclusive original jurisdiction to hear references or appeals on matters arising under the ITA and various other listed federal statutes “when references or appeals to the [Tax Court] are provided for in those Acts.” Under subsection 169(1) of the ITA, a taxpayer that has filed a notice of objection to an assessment under subsection 165(1) may appeal to the Tax Court to have the assessment vacated or varied. Under subsection 171(1), the Tax Court may dispose of an appeal by dismissing it or by allowing it and vacating the assessment, varying the assessment, or referring the assessment back to the minister for reconsideration and reassessment. In effect, the jurisdiction of the Tax Court is restricted to determining the correct amount of an assessment.

In contrast, under section 18(1) of the FC Act, the Federal Court has exclusive judicial review jurisdiction over a “federal board, commission or other tribunal,” which under section 2(1) is defined to include any person (such as the minister or a person exercising the minister’s delegated authority), “exercising or purporting to

13 In the second example, the CRA has effectively positioned itself as an international tax watchdog, ensuring that amounts are subject to tax somewhere in the world. However, whether a corresponding upward adjustment in another sovereign jurisdiction is relevant or an acceptable basis on which to deny the downward adjustment in Canada is questionable.

14 RSC 1985, c. F-7, as amended.

15 RSC 1985, c. T-2, as amended.

exercise jurisdiction or powers conferred by or under an Act of Parliament” (such as the ITA). In the context of the ITA, the Federal Court’s exclusive judicial review jurisdiction is constrained by section 18.5 of the FC Act, which removes that jurisdiction if an act of Parliament (such as the ITA) “expressly provides for an appeal” to another court (such as the Tax Court) “from a decision or order of a federal board, commission or other tribunal” (that is, from a decision of the minister). Thus, where a taxpayer has a right of appeal to the Tax Court under the ITA, such as the right to appeal an assessment of tax, the taxpayer cannot challenge the assessment before the Federal Court. Since the Tax Court’s jurisdiction is limited to determining the correct amount of an assessment issued by the minister, other ministerial decisions or actions under the ITA would be within the judicial review jurisdiction of the Federal Court.

Accordingly, where the issue is related to determining the correctness of a federal tax assessment, it is within the purview of the Tax Court, but where the issue is related to whether the minister appropriately exercised his or her discretion, it is within the purview of the Federal Court. Thus, for example, an issue that relates to the determination of a taxpayer’s income from a source for the purposes of section 3 of the ITA is squarely within the jurisdiction of the Tax Court. On the other hand, the failure of the minister to provide relief under any of subsections 152(4.2) and 220(2.1), (3), (3.1), and (3.2) of the ITA (the taxpayer relief provisions) is an issue squarely within the jurisdiction of the Federal Court.¹⁶

Which forum has jurisdiction to deal with a denied downward adjustment has an impact on the time period within which the taxpayer must initiate its dispute, the procedural steps that follow thereafter, and ultimately the conduct of the hearing of the dispute.

From a procedural perspective, a taxpayer has 90 days to file a notice of objection to an assessment,¹⁷ and thereafter can appeal to the Tax Court at any time after 90 days has elapsed since service of the objection or, where a decision is rendered by

16 Other examples of circumstances in which the taxpayer does not have a right of appeal to the Tax Court under the ITA and which are within the jurisdiction of the Federal Court include the following: the failure of the minister to assess tax, interest, and penalties after examining a taxpayer’s return of income for a taxation year, as required under subsection 152(1) of the ITA; the failure to reassess the taxpayer as permitted under subsection 152(4) of the ITA; the failure to issue a tax refund under subsection 164(1) of the ITA; and the failure to reappropriate amounts under section 221.2 of the ITA.

17 Subsection 165(1) of the ITA. An individual (other than a trust) or a graduated rate estate may file a notice of objection on or before the later of one year after the taxpayer’s filing-due date for the year (that is, April 30 for individuals) and 90 days after the day of sending the notice of assessment. Section 166.1 permits a taxpayer to late-file a notice of objection within one year of the expiry of the normal objection period, and section 166.2 permits the taxpayer to appeal to the Tax Court for an extension from the minister’s refusal to grant an application under section 166.1. If no application is made to late-file the return within the additional one-year period, the taxpayer is thereafter precluded from filing a notice of objection: *Canada (National Revenue) v. ConocoPhillips Canada Resources Corp.*, 2017 FCA 243.

the CRA on the objection (whether through a notice of confirmation or a further notice of reassessment), within 90 days of that decision. In contrast, an application for judicial review under section 18.1 of the FC Act must be filed within 30 days of the communication of the minister's decision, such as a communication denying a downward adjustment.¹⁸ Thus, if the taxpayer's recourse is strictly limited to an application for judicial review to the Federal Court (as is arguably the case in scenarios 1, 2, and 5(a)(ii) above), the taxpayer must commence the dispute process much more quickly than it may if the minister issues an assessment that reflects the denied downward adjustment.

Furthermore, the litigation steps differ significantly between an appeal to the Tax Court and an application for judicial review to the Federal Court. An appeal to the Tax Court can be lengthy, owing to the documentary and oral discovery process; and, as a few recent transfer-pricing cases have demonstrated, the hearing itself can involve several days or weeks of testimony. In contrast, a judicial review is intended to be an expedited process, with the deadlines for each step in the proceeding under the Federal Courts Rules¹⁹ being relatively short. As well, in contrast to the more detailed discovery process in a Tax Court appeal, "discovery" for a judicial review proceeds on the basis of affidavits. The applicant must file an affidavit in support of the application, and the respondent may (but is not obliged to) file an affidavit in response. Each party can then cross-examine the other party on the affidavit.²⁰ Finally, a judicial review hearing before the Federal Court typically involves no witnesses and typically lasts no more than a day.

As a result of the differences in the judicial review and objection/appeal processes, a review by the Federal Court of a denied downward adjustment request will be limited, compared to a review by the Tax Court. An applicant to the Federal Court (the taxpayer) will have a relatively short time to prepare its appeal of the denied request, and the Federal Court will lack the benefit of the more detailed evidentiary record that the Tax Court would typically have in a transfer-pricing dispute, including the testimony of fact witnesses and expert witnesses. If the respondent on the application for judicial review does not file an affidavit, the applicant will lack an affiant to cross-examine, and consequently may find it more difficult to persuade the Federal Court to displace the minister's decision.

The Federal Court's jurisdiction with respect to the administration and enforcement of the ITA was reviewed in *Canada v. Addison & Leyen Ltd.*²¹ and *Canada (National Revenue) v. JP Morgan Asset Management (Canada) Inc.*²² However, these cases involved taxpayers that had been issued an assessment or a reassessment, and

18 Section 18.1(2) of the FC Act. While relief is available to extend the application period, it is generally recommended that the application be filed within the 30-day deadline period.

19 SOR/98-106, as amended.

20 Unless the respondent on the application for judicial review does not file an affidavit.

21 2007 SCC 33.

22 2013 FCA 250.

therefore—unlike the taxpayers in scenario 1, 2, or 5(a)(ii)—definitely had the ability to object to and appeal the assessment/reassessment.²³

In determining whether a taxpayer is properly before the Federal Court, the Federal Court of Appeal in *JP Morgan* reviewed the three grounds for striking out a notice of application before the Federal Court,²⁴ which are that

1. the notice of application fails to state a cognizable administrative-law claim that can be brought in the Federal Court;
2. the Federal Court is barred from dealing with the administrative-law claim by section 18.5 of the FC Act or some other legal principle; and
3. the Federal Court cannot grant the relief sought.

A cognizable administrative-law claim must concern a decision involving the discretion of a federal board, commission, or other tribunal (the minister in the case of an assessment). The Federal Court of Appeal in *JP Morgan* suggested that all claims alleging that the minister abused his or her discretion in making an assessment have been dismissed as not being cognizable since the minister has no discretion in assessing tax. This principle stems from decisions in cases such as *Galway v. Minister of National Revenue*²⁵ and *Ludmer v. Canada*,²⁶ wherein the courts have held that the minister does not have “any discretion whatever in the way in which [he or she] must apply the *Income Tax Act* . . . [and is] required to follow it absolutely.”²⁷

Subsection 247(10) of the ITA, however, is a unique provision in today’s federal income tax legislation. It is the only provision in the ITA in which the correct determination of a taxpayer’s income (and therefore the correct determination of tax) is subject to ministerial discretion. It therefore falls outside the scope of the provisions at issue in cases such as *JP Morgan*, *Ludmer*, and *Galway* because it directly engages the minister’s discretion.²⁸ As a result, if the only requirement considered is that the

23 These decisions resulted from applications commenced in the Federal Court and dealt with whether the notice of application should be struck. They were not written from the perspective of the Tax Court. Accordingly, these cases are not necessarily instructive as to how the Tax Court would deal with a situation where its jurisdiction is at issue in respect of a provision that involves the discretion of the minister in the determination of the taxpayer’s income.

24 *JP Morgan*, supra note 22, at paragraph 66. If a motion to strike fails, the judicial review will proceed before the Federal Court according to rules 306 through 319 of the Federal Courts Rules, supra note 19.

25 [1974] 1 FC 600 (CA).

26 [1995] 2 FC 3 (CA).

27 Ibid., at 17.

28 Since subsection 247(10) gives the minister the discretion to affect the quantum of a taxpayer’s income, tax, and ultimate liability, it departs from the *Galway* principle in the sense that the minister has the ability to deny a downward adjustment, or presumably permit a partial adjustment, even where the minister’s conclusion gives rise to a result that is, technically, an

applicant (the taxpayer) has a cognizable administrative-law claim, the analysis in *JP Morgan* suggests that a taxpayer disputing a denied downward adjustment would be properly before the Federal Court.

The court in *JP Morgan* then went on to consider situations in which application to the Federal Court for judicial review is not available, in particular under section 18.5 of the FC Act where an appeal is available to the Tax Court. The court stated:

The Tax Court has exclusive jurisdiction to review the correctness of assessments by way of appeal to that Court. Sections 165 and 169 of the *Income Tax Act* constitute a complete appeal procedure that allows taxpayers to raise in the Tax Court all issues relating to the correctness of the assessments, *i.e.*, whether the assessment is supported by the facts of the case and the applicable law. . . . Therefore, it is not possible to bring a judicial review in the Federal Court raising the substantive acceptability of an assessment.²⁹

Subsection 247(2) of the ITA deals with the arm's-length price and the quantum of the transfer-pricing adjustment, and therefore concerns the correctness of the computation of a taxpayer's income (and tax). Subsection 247(10), on the other hand, is concerned not only with the correct amount (if any) of a downward adjustment, but also with the opinion of the minister as to whether it is appropriate to make the adjustment. Given that subsection 247(10) is arguably not concerned—or not only concerned—with the correctness of the assessment, the analysis in *JP Morgan* is not determinative as to whether the Tax Court has the exclusive jurisdiction to adjudicate a denied downward transfer-pricing adjustment.

The last aspect that the Federal Court of Appeal considered in *JP Morgan* in determining whether an application for judicial review should be struck is whether the Federal Court could grant the relief sought. The Federal Court of Appeal noted that in the tax context, the Federal Court is not permitted to vary, set aside, or vacate assessments. Such relief may be provided only by the Tax Court. Typically, the only relief that the Federal Court can order—assuming that it is prepared to grant relief at all—when considering a provision that gives the minister discretion (as opposed to an obligation) in respect of an action or a decision, is to refer the matter back to the minister for reconsideration. Given that the relief requested would be in respect of subsection 247(10) of the ITA, not subsection 247(2), the Federal Court could refer the matter to the minister for reconsideration.

The analysis in *JP Morgan* highlights the crux of the issue with downward adjustments: Subsection 247(10) of the ITA allows the minister to exercise his or her discretion to deny a downward adjustment and therefore suggests that review of the denial is within the Federal Court's jurisdiction; but subsection 247(11) mandates

incorrect determination of the taxpayer's income. Accordingly, with respect to settlements, subsection 247(10) may permit the minister to enter into a compromise settlement where the minister considers such result to be "appropriate."

²⁹ *JP Morgan*, supra note 22, at paragraph 82.

that certain sections, including sections 165 and 169, apply to part XVI.1 with such modifications as the circumstances require, suggesting that appeals in respect of subsection 247(10) can lie to the Tax Court. Furthermore, the decision to deny the downward adjustment affects the computation of the taxpayer's income and tax liability, which are matters within the purview of the Tax Court. Finally, there may be situations—such as those in scenarios 3, 4, 5(a)(i), and 5(b) above—where the minister has issued a notice of assessment (or a notice of loss determination) to which the taxpayer has validly filed a notice of objection under section 165, and therefore the taxpayer may appeal to the Tax Court.

THE APPROPRIATE FORUM TO HEAR AN APPEAL OF THE MINISTER'S DECISION

The language of subsection 247(10) of the ITA suggests that it is not concerned—or at least, not exclusively concerned—with the correctness of the quantum of a downward adjustment, but is focused on the circumstances of the downward adjustment request. If granting the request is an exercise of the minister's discretion, then under sections 18(1) and 18.1 of the FC Act and according to *JP Morgan*, a review of the decision is available in the Federal Court. However, there are several arguments that suggest that the review of a denied downward transfer-pricing adjustment should lie with the Tax Court, not the Federal Court. These arguments are grounded in the language used in part XVI.1 of the ITA, the jurisdiction of the Tax Court, and the restrictions on the jurisdiction of the Federal Court.

The Language and Legislative History of Part XVI.1 of the ITA

The first argument highlights the language used by Parliament in drafting part XVI.1 of the ITA and its legislative history. Notably, subsection 247(2) provides that adjustments (upward or downward) must be made where the non-arm's-length transactions differ from those that arm's-length parties would enter into, and subsection 247(11) incorporates the normal objection and appeal procedures in divisions I and J for the purposes of part XVI.1.

The language of subsection 247(2), unlike its predecessor, requires that an adjustment under either paragraph 247(2)(c) or (d) is to be based on “the terms and conditions . . . that would have been made between persons dealing at arm's length,” rather than limiting an adjustment to instances where “an amount greater” than the reasonable amount was charged. Thus, a transfer-pricing adjustment under subsection 247(2) must be based on the arm's-length price, regardless of whether the outcome is an increase in or a decrease to the taxpayer's income. The determination of the arm's-length transfer price is a matter squarely within the exclusive jurisdiction of the Tax Court. Accordingly, the determination of the quantum of a transfer-pricing adjustment that would result in a downward adjustment would be a matter within the jurisdiction of the Tax Court.

Subsection 247(11) provides that the following provisions apply for the purposes of part XVI.1: sections 152, 158, and 162 through 167 (thus including section 165,

the objection provision in division I of part I), and all of division J of part I (which includes section 169, providing for a right of appeal of an assessment to the Tax Court). Other parts of the ITA that specifically incorporate provisions such as those listed in subsection 247(11) use similar language. However, the incorporation of specific provisions by reference is necessary in those other parts of the ITA because they impose a tax distinct from that imposed under part I, and in the absence of the incorporation by reference of the objection and appeal provisions in part I, there would ostensibly be no right to appeal the correctness of the minister's determination of tax under these other parts.³⁰ In contrast, no such incorporation provision is found in part XVI, which includes sections 245 and 246, because no distinct tax, interest, or penalty is imposed under that part. Rather, the tax benefit under section 245 (the general anti-avoidance rule) or section 246 is a benefit related to the determination of tax under other parts of the ITA—either part I, which contains divisions I and J, or other parts that incorporate by reference the objection and appeal provisions in part I.

Given that part XVI.1 contains its own penalty provision (subsection 247(3)), it is arguable that the purpose of subsection 247(11) is limited to ensuring that a taxpayer has the right to appeal the assessment of that penalty. This restrictive view of subsection 247(11), however, ignores its description in the December 1997 technical notes³¹ and the history of its introduction. Although the technical notes are not particularly clear as to the reason for subsection 247(11), they do state that “[p]roposed new subsection 247(11) of the Act *ensures* that the provisions of Part I of the Act relating to . . . appeals apply to proposed new Part XVI.1 of the Act.”³²

The express incorporation of subsection 247(11) by Parliament suggests that an appeal dealing with *any* provision in part XVI.1 of the ITA can be made to the Tax Court, at least in those circumstances in which there is a notice of assessment to which the taxpayer can validly object. Where there is no assessment to which the taxpayer can object, it is questionable whether subsection 247(11) permits the taxpayer to treat the letter denying the downward adjustment as tantamount to a notice of assessment to which the taxpayer can object or appeal. In other words, it is questionable whether the courts would accept a modification to sections 165 and 169, as they apply for the purposes of part XVI.1, to include a reference to the minister's communication of a denied downward adjustment.³³

30 See, for example, subsection 204.3(2).

31 *Supra* note 7.

32 *Ibid.*, at 515 (emphasis added).

33 In *Petratos v. The Queen*, 2013 TCC 240, the Tax Court held that a letter denying the requested adjustment was not an assessment because no tax was assessed. This decision raises the question as to whether sections 165 and 169 can be modified to incorporate a reference to a denied downward adjustment pursuant to subsection 247(11).

In the original draft of the proposed transfer-pricing rules in part XVI.1, subsection 247(11) was not a subsection of section 247, but rather was included as a subsection of proposed section 247.1, which set out certain administrative rules:

247.1 (1) Every taxpayer shall on or before the last day of the second month after the end of a taxation year pay to the Receiver General any penalty to which the taxpayer is liable under this Part for the year.

(2) Where a taxpayer has failed to pay all or any part of a penalty payable under this Part by the taxpayer, the taxpayer shall pay to the Receiver General interest at the prescribed rate on the amount the taxpayer has failed to pay computed from the day on or before which the penalty was required to be paid to the day of payment.

(3) Sections 152, 158, 159, 162 to 167 and Division J of Part I apply to this Part with such modifications as the circumstances require.³⁴

While subsections 247.1(1) and (2) would have applied only to the transfer-pricing penalty in subsection 247(3) and the interest thereon, subsection 247.1(3) was made expressly applicable to all of proposed part XVI.1, and therefore to all of the transfer-pricing rules, and not just to penalties.

Subsection 247.1(3) was further distinguished from subsections 247.1(1) and (2) and the assessment of transfer-pricing penalties by two different effective dates in the proposed coming-into-force provisions. Specifically, those provisions of part XVI.1 that related to the transfer-pricing rules in general, including subsection 247.1(3), were to have more immediate impact, while those applicable only to transfer-pricing penalties, were to have deferred impact:

(2) Subsections 247(1), (2), (6), (7), (8) and (10) *and subsection 247.1(3) of the Act*, as enacted by subsection (1), apply to taxation years and fiscal periods that begin *after 1997*.

(3) Subsections 247(3), (4), (5) and (9) *and subsections 247.1(1) and (2) of the Act*, as enacted by subsection (1), apply with respect to adjustments made under subsection 247(2) of the Act, as enacted by subsection (1), for taxation years or fiscal periods that begin *after 1998* except that

(a) subsections 247(3) to (5) and (9) of the Act, as enacted by subsection (1), do not apply with respect to a transaction completed *before [the] Announcement Date* [September 11, 1997], and

(b) a record or document made or obtained or provided to the Minister of National Revenue by a taxpayer or a partnership before the day that is 60 days after the end of the taxpayer's first taxation year or the partnership's first fiscal period, as the case may be, that *begins after 1998* is deemed for the purpose of subsection 247(4), as enacted by subsection (1), to have been so made, obtained or provided on a timely basis.³⁵

34 Canada, Department of Finance, *Draft Legislation on Transfer Pricing* (Ottawa: Department of Finance, September 1997), section 3(1).

35 *Ibid.*, sections 3(2) and (3) (emphasis added).

Parliament could have drafted subsection 247(11) such that subsection 247(10) was specifically removed from the application of section 165 and division J of the ITA, or it could have limited subsection 247(11) to the assessment of a penalty under subsection 247(3), placing the review of the minister's decision to deny a downward adjustment exclusively within the jurisdiction of the Federal Court. This, however, was not the wording chosen by Parliament, and, indeed, the legislative history of the provision suggests that Parliament intended it to be of broader application.

Last, in considering the language used by Parliament in drafting part XVI.1, the importance of section 18.5 of the FC Act, as discussed further below, is elevated, implying that an appeal of a denied downward adjustment is exclusively within the jurisdiction of the Tax Court.³⁶

The Jurisdiction of the Tax Court

The second argument supporting the jurisdiction of the Tax Court to deal with a denied downward adjustment centres on section 12 of the TCC Act and subsection 152(8) of the ITA.

Section 12 of the TCC Act gives the Tax Court the exclusive original jurisdiction to hear and determine appeals on matters arising under the ITA when an appeal to the Tax Court is specifically provided for in the ITA. This provision was described by the Federal Court of Appeal in *JP Morgan* as Parliament's having "declared the Tax Court's powers concerning assessments to be exclusive."³⁷ The duty of the Tax Court was described by the Federal Court of Appeal in *Canada (Attorney General) v. Buchanan*³⁸ as requiring the Tax Court to arrive at the correct assessment, not to review the correctness or reasonableness of the minister's decision. While the phrase "in the opinion of the minister" in subsection 247(10) may suggest that the Tax Court has no jurisdiction with respect to subsection 247(10), this may be countermanded by the language of subsection 247(2), which focuses on the correctness of the computation of a taxpayer's income (for tax purposes), and on subsection 247(11), which specifically provides for a right of appeal to the Tax Court in respect of part XVI.1. Thus, in accordance with section 12 of the TCC Act, only the Tax Court has the ability to determine the correct transfer price, whether it results in an upward or a downward adjustment to the taxpayer's income.

Furthermore, subsection 152(8) of the ITA provides that an assessment is deemed to be valid and binding, subject to its being varied or vacated on objection to the CRA or on appeal to the Tax Court. Thus, where the CRA undertakes an adjustment pursuant to subsection 247(2) of the ITA and, in so doing, denies a downward adjustment request under subsection 247(10), the assessment issued will be valid and binding, and the only way in which the taxpayer may have it varied or vacated is

36 *Addison & Lyein*, supra note 21. See the discussion below regarding *Redeemer Foundation*, infra note 44 and the accompanying text.

37 *JP Morgan*, supra note 22, at paragraph 24.

38 2002 FCA 231, at paragraph 18.

through the objection and appeals process, as was held by the Federal Court of Appeal in *Optical Recording v. Canada*.³⁹ Accordingly, the appeal of a denied downward adjustment should be reviewed by the Tax Court, at least where the taxpayer can file a notice of objection to a reassessment that reflects the denied downward adjustment.

This argument is supported by the historical jurisprudence, discussed below, concerning the jurisdiction of the Exchequer Court to hear appeals from the exercise of discretionary provisions previously found in the ITA that engaged the minister's discretion with respect to the computation of a taxpayer's income. This jurisprudence is helpful given that the Exchequer Court historically had the jurisdiction of the present-day Federal Court and the Tax Court: that is, the Exchequer Court had both the jurisdiction to entertain actions against the Crown⁴⁰ and exclusive original jurisdiction to hear appeals of matters under the Income War Tax Act⁴¹ ("the IWTA"). Unlike today's ITA, the IWTA included many provisions giving the minister discretion in determining the correct amount of a taxpayer's income, and the Exchequer Court relied on the equivalent of the present-day Tax Court's jurisdiction to review appeals concerning these provisions.

The difficulty with solely relying on section 12 of the TCC Act, to which we return below, is that there are situations—such as those described in scenarios 1, 2, and 5(a)(ii) above—in which a downward adjustment is denied but there is no assessment to which the taxpayer has the statutory right to object under section 165 of the ITA.

The Jurisdiction of the Federal Court and Restrictions on That Jurisdiction

The third argument examines the jurisdiction of the Federal Court and the relief it may grant under the parameters of sections 18, 18.1, and 18.5 of the FC Act. Under section 18(1) of the FC Act, the Federal Court has exclusive jurisdiction to grant certain relief, including declaratory relief.⁴² Accordingly, it has the jurisdiction to hear and determine an application for judicial review and may declare the decision of the minister invalid, set the decision aside, or refer the decision back to the minister with such directions as the court considers appropriate pursuant to section 18.1(3) of the FC Act.

The decisions of the minister under the ITA that are typically reviewed by the Federal Court concern requests for taxpayer relief under subsection 220(3.1) or

39 [1990] FCJ no. 971, at paragraph 22 (CA).

40 Supreme and Exchequer Courts Act, SC 1875, c. 11, section 58. Given that the Exchequer Court was a superior court, it had the inherent power to review administrative actions and ensure that a government body did not exceed its jurisdiction.

41 RSC 1927, c. 97, section 63.

42 See also *Kravetsky v. The Queen*, 1998 CanLII 305 (TCC).

other “taxpayer relief” provisions.⁴³ The decisions of the minister under subsection 220(3.1) deal with relief of interest and penalties, not the correct computation of interest and penalties. As a result, judicial review by the Federal Court is not concerned with the correctness of an assessment or the calculation of income, but rather with the reasonableness of the minister’s decision not to exercise his or her discretion (for example, to provide relief of interest or penalties, to provide an extension to the filing-due date for certain elections, or to waive the requirement to file certain information). In other words, such taxpayer relief provisions do not alter or challenge the correctness of the determination of a taxpayer’s income (or the correct computation of interest or penalties). The Supreme Court of Canada concurred with this description of the Federal Court’s powers in *Redeemer Foundation v. Canada (National Revenue)*.⁴⁴ The Supreme Court found that the Federal Court did not have the ability to vacate assessments, rejecting the Federal Court’s interpretation of its powers under section 18.1(3) of the FC Act. Rather, the Supreme Court found that this ability was the exclusive jurisdiction of the Tax Court, given that subsection 152(8) of the ITA deems an assessment to be valid and binding unless varied or vacated by objection to the CRA or appeal to the Tax Court pursuant to subsection 169(1) of the ITA.

The *Redeemer Foundation* decision applies equally to any suggestion that the Federal Court has an ability to vary an assessment that includes a denied downward adjustment. As described above, a downward adjustment deals with the correct

43 A taxpayer did apply to the Federal Court for judicial review of a decision on a matter with respect to a denied downward adjustment request in *Teletech Canada Inc.*, supra note 11. That case concerned a taxpayer that had sought a downward transfer-pricing adjustment in Canada and a corresponding upward adjustment in the United States. However, having received no response after two years, the taxpayer withdrew the request and instead sought competent authority relief under the MAP of the applicable treaty (the Convention Between Canada and the United States of America with Respect to Taxes on Income and on Capital, signed at Washington, DC on September 26, 1980, as amended by the protocols signed on June 14, 1983, March 28, 1984, March 17, 1995, July 29, 1997, and September 21, 2007). The CRA refused to accept the MAP request, on the basis that no adjustment had been processed at that time. While the United States ultimately agreed to process its upward adjustment, the CRA did not process the corresponding downward adjustment and declined to participate in the MAP process. The taxpayer then sought judicial review of the CRA’s “continuing course of conduct” (*Teletech Canada Inc.*, supra note 11, at paragraph 40) and sought a mandamus order to compel the CRA to submit to binding arbitration under the MAP. Unfortunately, the court dismissed the taxpayer’s application on a technical, and not a substantive, point on the basis that there were specific decisions made by the minister, as opposed to a continuing course of conduct, and the taxpayer should have commenced its application for judicial review within the requisite time frame of those decisions. The Federal Court did state (*ibid.*, at paragraph 61, in respect of the taxpayer’s application to compel the minister to submit to binding arbitration under the MAP) that “Courts will not generally make an order of *mandamus* to compel a decision maker to make a particular decision where the decision-making power is discretionary in nature,” as is the case in respect of article IX of the Canada-US treaty, cited above.

44 2008 SCC 46; rev’g 2005 FC 1361.

transfer price and therefore affects the computation of a taxpayer's income for tax purposes. The computation of income and the assessment of tax thereon arise pursuant to section 152 of the ITA. Should a taxpayer apply for judicial review of a denied downward adjustment request to the Federal Court, the court would not be able to vary the assessment so as to give effect to the downward adjustment. However, it would have the authority to refer the decision back to the minister for reconsideration, in effect requiring the minister to reconsider the assessment.

Finally, section 18.5 of the FC Act expressly limits the Federal Court's powers with respect to sections 18 and 18.1 of the FC Act where an act of Parliament expressly provides for an appeal to the Tax Court. Parliament, in drafting part XVI.1 of the ITA, expressly provided in subsection 247(11) that division J of the ITA applies to that part. Consequently, the Federal Court should not have the jurisdiction to review a downward adjustment request that was denied under subsection 247(10) of the ITA, at least where a right of appeal to the Tax Court exists. In *Walker v. Canada*, the Federal Court of Appeal noted that "[s]ection 18.5 of the [FC] Act should be interpreted, as far as possible, to preclude parallel proceedings in the Federal Court and the Tax Court of Canada in respect of substantially the same underlying issue."⁴⁵ This was more forcefully stated by the Federal Court of Appeal in *JP Morgan*: "Despite the broad powers the Federal Court has under the foregoing provisions, Parliament has forbidden it from dealing with matters that can be appealed to the Tax Court."⁴⁶ Thus, even where a downward adjustment has been denied by the minister and that denial is based exclusively on the circumstances of the taxpayer's request, rather than on the quantum of the adjustment being sought, the appropriate forum to consider the denied downward adjustment should be the Tax Court, at least where the taxpayer has a right of appeal to that court.

HISTORICAL JURISDICTION AND TREATMENT OF DISCRETIONARY PROVISIONS

As mentioned above, there is jurisprudence from the Exchequer Court regarding appeals under the IWTA that concerned provisions that engaged the minister's discretion in determining a taxpayer's income. Prior to the introduction of subsection 247(10) in 1998, there had for some time been no other provision in the ITA under which the determination of an amount relevant to the computation of income was subject to ministerial discretion. Before the 1972 tax reform, there were a number of provisions in the ITA, and previously the IWTA, that permitted the minister, in his or her discretion, to limit or to determine an amount claimed as a deduction by a taxpayer.⁴⁷ The decisions discussed below support the notion that the Tax Court

⁴⁵ 2005 FCA 393, at paragraph 13.

⁴⁶ *JP Morgan*, supra note 22, at paragraph 27.

⁴⁷ Most of the ministerial discretion provisions were removed with the enactment of the Income Tax Act in 1948. The few that remained in that statute were eliminated by 1972. As the Carter

may review a discretionary ministerial decision that affects the computation of a taxpayer's income, since such computation is within the exclusive jurisdiction of the Tax Court.

In *Pioneer Laundry & Dry Cleaners Ltd. v. Minister of National Revenue*,⁴⁸ the taxpayer appealed the minister's decision under paragraph 5(1)(a) of the IWTA, which permitted a deduction for "such reasonable amount as the minister, in his discretion, may allow for depreciation." The taxpayer appealed to the Exchequer Court using the appeal mechanism in section 60 of the IWTA. The court considered whether the minister had exercised his discretion in a reasonable manner. In doing so, the court undertook a review of the legal principles applicable to depreciation and concluded that the minister had appropriately exercised his discretion.

The decision was appealed to the Supreme Court of Canada, which in a 3-2 decision found that the minister had appropriately exercised his discretion.⁴⁹ The dissenting opinion, rendered by Davis J (and concurred in by Duff CJC), discussed the court's jurisdiction to review the minister's decision and the standard applicable in reviewing the minister's decision. With respect to the appeal mechanism, Davis J stated:

[s]ection 60 of the Act [the IWTA] entitles a taxpayer, after receipt of the decision of the Minister upon appeal from an assessment, if dissatisfied therewith, to appeal to the Court. The decision is appealable; but the exercise of the discretion will not be interfered with unless it was manifestly against sound and fundamental principles.⁵⁰

In further discussing the standard of review, Davis J stated:

commission suggested, those sections were "undesirable in principle because they give rise to uncertainty" and should be repealed: Canada, *Report of the Royal Commission on Taxation*, vol. 2 (Ottawa: Queen's Printer, 1966), at 15. See also *ibid.*, vol. 3, at 567-68: "In our opinion ministerial discretionary powers are undesirable except in extreme circumstances. Where such powers exist, taxpayers cannot be assured that they will be judged by the same standard as other taxpayers. If an unfavourable decision is reached by the Minister, the taxpayer's rights of appeal are narrowly limited. Such a decision may have been reached privately and on the basis of evidence not communicated to the taxpayer. To the extent that discretionary powers are granted, there is a departure from the rule of law. For these reasons we think that ministerial discretion should be used in legislation only in unusual circumstances." See also *ibid.*, vol. 5, at 126-28.

48 [1938] Ex. CR 18.

49 [1939] SCR 1. The reasons of the majority were divided. Hudson J (with Crockett J concurring) noted that the provision did not outline "the principle or basis on which the depreciation allowance is to be ascertained" and that the statute did not limit the field for operation of the minister's discretion. Accordingly, given that the minister had exercised his discretion, he had done so appropriately. Kerwin J simply concluded that since the minister had exercised his discretion without disregarding any statutory provision, there was no ground upon which to challenge his determination. See *ibid.*, at 8-11.

50 *Ibid.*, at 5.

[W]hile there is no statutory limitation upon the appellate jurisdiction, normally the Court would not interfere with the exercise of a discretion by the Minister except on grounds of law.⁵¹

In this case, Davis J found there to be an error of law in the minister's decision—specifically, that the minister had failed to consider that the taxpayer was a separate legal entity from the company in liquidation from which the taxpayer acquired the depreciable property (even though both companies had the same shareholders)—and therefore he would have allowed the appeal.

The taxpayer appealed to the Judicial Committee of the Privy Council, which agreed with Davis J's dissenting opinion in the Supreme Court. While the Privy Council found that the minister's decision is “purely administrative and final,” it confirmed that “a right of appeal is conferred on a dissatisfied taxpayer, . . . [but] the Court would not interfere with the decision, unless . . . it was manifestly against sound and fundamental principles.”⁵² Since the Privy Council agreed with the error of law found by Davis J, the decision was remitted to the minister for reconsideration.

In *Pure Spring Co. Ltd. v. Minister of National Revenue*,⁵³ the taxpayer appealed the minister's decision to deny the taxpayer's deduction of an individual's salary under subsection 6(2) of the IWTA. This discretionary provision permitted the minister to

disallow any expense which he in his discretion may determine to be in excess of what is reasonable or normal for the business carried on by the taxpayer, or which was incurred in respect of any transaction or operation which in his opinion has unduly or artificially reduced the income.

The Exchequer Court analyzed the prior jurisprudence to determine whether or not it had the jurisdiction to review the minister's discretionary decision, which the taxpayer appealed under the appeal mechanism of the IWTA. The court agreed with

51 Ibid., at 8.

52 [1939] 4 DLR 481, at 485 (PC). According to Thorson P in *Pure Spring Co. Ltd. v. Minister of National Revenue*, [1947] 1 DLR 502 (Ex. Ct.), at 559, “what is meant [by this phrase] is that if the purported exercise of discretion is manifestly against sound and fundamental principles it is not the exercise of discretion contemplated by the Act [the IWTA]. It is, therefore, not accurate to describe the Court's action in referring the matter back to the Minister on the ground that he has not applied proper legal principles as an interference with his discretion, for it is no such thing; the action is consequent on the Court's finding that, in applying improper legal principles, the Minister has not actually exercised the discretion vested in him at all.” That particular test may now be superseded by the *Dunsmuir* “reasonableness” test, which is the current standard for review normally applicable to the exercise of discretion: *Dunsmuir v. New Brunswick*, 2008 SCC 9. The reasonableness test in *Dunsmuir* provides that the court must examine the decision-making process to ensure that it contains a rational justification for the decision, and is transparent and intelligible, and that the decision itself falls “within a range of possible, acceptable outcomes which are defensible in respect of the facts and law” (ibid., at paragraph 47).

53 *Pure Spring*, supra note 52.

the prior jurisprudence that the appeal mechanism of the IWTA permitted the court to review the minister's decisions. Even though the appeal to the Exchequer Court was through the appeal mechanism in the IWTA and not on an application for certiorari or mandamus, it did not alter the nature of the court's review or the principles to be applied in reviewing the minister's decision.⁵⁴ The court also held that where it was found that the minister had not exercised his discretion properly, the court could only send the matter back to the minister for reconsideration "stripped of such wrong principles."⁵⁵

This jurisprudence suggests that a taxpayer could appeal a discretionary decision of the minister to the Exchequer Court utilizing the appeal mechanism in the IWTA, and not on the basis of certiorari or mandamus. As well, the Exchequer Court found that it had the jurisdiction, upon receipt of the appeal, to review the minister's decision on the basis of the standard of review then applicable. However, the court did not have the ability to substitute its decision for that of the minister where the court concluded that the minister had not appropriately exercised his discretion. Rather, the court in such circumstances could only refer the matter back to the minister for reconsideration.

THE TAX COURT'S JURISDICTION UNDER SUBSECTION 247(11) IN RESPECT OF SUBSECTION 247(10)

The principles established in the jurisprudence from the Exchequer Court should be applicable to the Tax Court's jurisdiction under subsection 247(11) as it applies to subsection 247(10), although the standard of review would be today's standard. Given that the Tax Court, like the Exchequer Court before it, has the exclusive jurisdiction to hear appeals on matters that arise under the ITA when appeals to the Tax Court are provided for in the ITA, the Tax Court should have, under subsection 247(11), the jurisdiction to review the exercise of the minister's discretion

54 For the Tax Court to do more—for example, to vacate or vary the minister's decision to deny a downward adjustment request—such powers would have to be explicitly conferred by the ITA. For example, in *Nicholson Ltd. v. Minister of National Revenue*, [1945] 4 DLR 683 (Ex. Ct.) (in which the taxpayer appealed the minister's discretionary decision to disallow most of the bonuses paid to executives under subsection 6(2) of the IWTA), the Exchequer Court referred to the decision of the Supreme Court of New South Wales in *Dobinson v. Federal Commissioner of Taxation* (1935), 3 ATD 150, in which the court found that it could substitute its own opinion for that of the commissioner on the basis of the language in section 51B of the Income Tax Assessment Act (Commonwealth of Australia), 1922-1933. Section 51B provided for a distinct right of appeal from "any opinion, decision or determination of the Commissioner." The Exchequer Court in *Nicholson* held (*supra*, at paragraph 45) that before it could "try *de novo* the facts that were before the Minister . . . and substitute its own opinion as to the amount of [the] excessive expense to be disallowed, if any [under subsection 6(2) of the IWTA], there would have to be specific statutory authority enabling it to do so, similar in effect to that given by section 51B of the Australian Act."

55 *Pure Spring*, *supra* note 52, at 531.

under subsection 247(10), at least in circumstances where the taxpayer can appeal an assessment that reflects the minister's decision. If a taxpayer can appeal to the Tax Court a decision of the minister under subsection 247(10), the Tax Court must adhere to principles of administrative law when reviewing the exercise of the minister's discretion and apply the appropriate standard of review.⁵⁶ It can interfere with the minister's decision only if the decision is unreasonable, as that standard is now interpreted in accordance with the *Dunsmuir* "reasonableness" test.⁵⁷ The relief that the Tax Court can provide is not broader than that of the Federal Court. The court may not replace the minister's decision with its own; rather, if it considers the decision unreasonable, it may refer the matter back to the minister for reconsideration. Accordingly, in reviewing a denied downward adjustment request, the Tax Court could review the decision to ensure both that the amount of the downward adjustment request by the taxpayer is correct and that the minister has exercised his or her discretion appropriately (that is, the minister's decision-making process contains a rational justification that is transparent and intelligible, and the decision itself falls within a range of possible, acceptable outcomes that are defensible in respect of the facts and the law).

An overarching problem, of course, is that no appeal can lie to the Tax Court if the taxpayer has no ability file a notice of objection, as may be the case in a number of the scenarios provided at the outset of this article. In our view, it is not appropriate that the Tax Court have jurisdiction in some circumstances (where the denied downward adjustment is reflected in an assessment to which the taxpayer has filed a notice of objection) but not in others (where the denial does not result in an assessment). It is also not appropriate that the jurisdiction to deal with denied downward transfer-pricing adjustments should be divided between the Tax Court and the Federal Court, depending on whether such an assessment and objection exist. Finally, it would not be appropriate if the Tax Court's jurisdiction were limited to a determination of the correctness of the quantum of a downward transfer-pricing adjustment requested by the taxpayer, and the taxpayer would have to separately seek judicial review in the Federal Court if the minister refused to process a reassessment to implement the Tax Court's determination of the quantum based on subsection 247(10).

56 As set out in *Dunsmuir*, there are two standards for judicial review, reasonableness and correctness (supra note 52, at paragraphs 45 and 51-64). The language in subsection 247(10), particularly "in the opinion of the Minister . . . it would be appropriate that the adjustment be made," suggests that the standard of review of the minister's decision would be reasonableness.

57 See supra note 52. There is a trilogy of cases recently heard by the Supreme Court of Canada that may result in reconsideration of the standard of review for discretionary decisions set out in *Dunsmuir*. The appeals were heard on December 4-6, 2018: *National Football League, et al. v. Attorney General of Canada*, SCC file no. 37897; *Bell Canada, et al. v. Attorney General of Canada*, SCC file no. 37896; and *Minister of Citizenship and Immigration v. Alexander Vavilov*, SCC file no. 37748. Judgment was reserved in all three cases.

The lack of an appropriate dispute mechanism for denied downward adjustments was highlighted in a 2008 report by the Transfer Pricing Subcommittee of the Advisory Panel on Canada's System of International Taxation.⁵⁸ Specifically, the subcommittee recommended that "[s]ubsection 247(10) should be amended to provide recourse when a request for downward adjustment is either not acted upon or refused."⁵⁹

One could certainly argue that recourse is currently available in all cases of a denied downward adjustment, but that recourse is limited to an application to the Federal Court for judicial review. For the reasons outlined above, we suggest that the Tax Court is the more appropriate court to consider the denial of a downward adjustment and that a taxpayer ought to have the ability to appeal to the Tax Court in all cases where a downward adjustment request has been denied.

ENSURING THE TAX COURT'S JURISDICTION REGARDING SUBSECTION 247(10)

To ensure that the Tax Court has jurisdiction to hear an appeal in all circumstances in which a downward adjustment is denied, we recommend that subsection 247(11) be amended to include language that would compel the minister to issue an assessment where the minister denies a taxpayer's request for a downward adjustment. For example, subsection 247(11) could be amended to add a new paragraph, paragraph 247(11)(a), as follows (with existing subsection 247(11) becoming paragraph 247(11)(b)):

Where a person has made a request under subsection 247(2) (other than an adjustment that results in or increases a transfer pricing capital adjustment or a transfer pricing income adjustment of the person for a taxation year), the Minister shall consider such request with all due dispatch, and if the Minister has under subsection 247(10) denied the person's request in whole or in part, the Minister shall assess the amount of tax, if any, payable by the person under this Act and send a notice of assessment or a notice of determination of loss, as the case may be, to the person; and

Such a provision, combined with the text of current subsection 247(11) (renumbered as paragraph 247(11)(b)), would ensure that the taxpayer in all circumstances,

58 Transfer Pricing Subcommittee of the Advisory Panel on Canada's System of International Taxation, *The Administration of Canada's Transfer Pricing Rules: Issues and Recommendations* (Ottawa: Department of Finance, August 2008) (www.fin.gc.ca/access/tt-it/apcsit-gercfi/pdf/RR1%20-%20TP%20Subcommittee%20-%20en%20-%20final%20-%20090113.pdf).

59 Ibid., at 15. The subcommittee provided suggested wording for the amendment, *ibid.*, at note 7. The amendment would essentially give the Tax Court jurisdiction to deal with denied downward transfer-pricing adjustments. We offer a similar, but more streamlined, solution in the conclusion of this article. The subcommittee also recommended, *ibid.*, at 15, that "it should be considered whether to remove the discretion from subsection 247(10)." Consideration of that recommendation is beyond the scope of this article.

including scenarios 1, 2, and 5(a)(ii) described above, can file a notice of objection (and a notice of appeal) to the assessment that reflects the denied downward adjustment request. Thus, all taxpayers would be afforded the same rights of objection and appeal from a denied downward adjustment.⁶⁰

Until such an amendment is made, the Tax Court's jurisdiction to deal with all denied downward transfer-pricing adjustments may be called into question. Even in those situations in which it appears that the taxpayer can object to and appeal an assessment that does not include a requested downward adjustment, until the courts have pronounced themselves on the matter, it would be prudent for the taxpayer to file an application for judicial review in the Federal Court within 30 days of the decision and request that the application be stayed while the taxpayer appeals the assessment to the Tax Court. Following this course of action, the taxpayer can ensure that it has preserved all rights of appeal, at least until the Tax Court determines that it has the jurisdiction to grant relief in respect of a denied downward adjustment under subsection 247(10).

60 We also recommend that specific officials in the Appeals Branch of the CRA be given delegated authority under subsection 220(2.01) to exercise the minister's discretion under subsection 247(10), so that the Appeals Branch has the authority to consider the objection to a denied downward adjustment. We suggest that such officials should include the assistant director of appeals at the tax services offices and the deputy assistant commissioner of appeals at headquarters. These individuals hold positions similar to the CRA audit officials who currently have delegated authority under subsection 247(10).

An Empirical Analysis of the Displacement Effect of TFSAs on RRSPs

Leslie Berger, Jonathan Farrar, and Lu Zhang*

PRÉCIS

En instaurant le compte d'épargne libre d'impôt (CELI) en 2009, le gouvernement du Canada souhaitait offrir un autre véhicule d'épargne en plus des régimes enregistrés d'épargne-retraite (REER). Cependant, il existe peu de données empiriques concernant l'effet de l'épargne dans les CELI sur l'épargne dans les REER. Pour étudier cet aspect, nous avons effectué une analyse empirique à l'aide des données de la Banque de données administratives longitudinales de Statistique Canada, qui contient les cotisations annuelles aux CELI et aux REER d'un échantillon de 20 pour cent de tous les déclarants canadiens. Notre analyse nous amène à constater un effet de déplacement : toute augmentation de 1 pour cent d'une cotisation à un CELI réduit approximativement de 0,4 pour cent la cotisation à un REER. Nos résultats ont des répercussions sur la capacité des Canadiens à autofinancer leur retraite, ainsi que sur la capacité du gouvernement canadien de générer des recettes fiscales dans l'avenir.

ABSTRACT

The tax-free savings account (TFSA), introduced in 2009, was intended by the Canadian government to provide an alternative catchment for savings in addition to registered retirement savings plans (RRSPs). However, little empirical evidence exists regarding the impact of saving in TFSAs on saving in RRSPs. To investigate this issue, we conduct empirical analysis, using data from Statistics Canada's Longitudinal Administrative Databank, which contains annual TFSA and RRSP contributions for a sample of 20 percent of all Canadian taxfilers. We find evidence of a displacement effect of TFSAs on RRSPs: every 1 percent increase in a TFSA contribution reduces an RRSP contribution by approximately 0.4 percent. Our findings have implications for Canadians' ability to self-fund their retirement, as well as for the Canadian government's ability to generate future tax revenues.

KEYWORDS: TAX-FREE SAVINGS ACCOUNT ■ REGISTERED RETIREMENT SAVINGS PLAN ■ TFSA ■ RRSP ■ DISPLACEMENT

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INTRODUCTION

The registered retirement savings plan (RRSP) and tax-free savings account (TFSA) are the predominant tax-preferred savings accounts available for Canadians' personal savings.¹ The RRSP is an example of a tax-deferred savings plan. Contributions to an RRSP are made with pre-tax cash, and, in general, withdrawals are fully taxable.² In contrast, the TFSA is an example of a tax-prepaid savings plan. Contributions to a TFSA are made with after-tax cash, and there are no tax consequences when an amount is contributed or withdrawn. In both plans, income earned in the plan is not taxed (although, in the case of an RRSP, such income is taxed in the year of withdrawal).

The RRSP, introduced in 1957, was intended to provide Canadian workers who lacked access to an employer-funded pension plan a similar opportunity to save for retirement as that available to Canadian workers participating in such plans. The TFSA was introduced in 2009, at a time of declining savings in Canadian households and an impending retirement boom, factors that would add pressure to social security programs (such as old age security) and constrain the ability of future governments to provide publicly funded retirement programs (such as the Canada Pension Plan). The TFSA also provides a saving incentive for Canadians earning low and moderate incomes (for whom contributions to an RRSP might be subject to higher tax rates at the time of withdrawal relative to the time of contribution), and for high income earners who were constrained by RRSP contribution limits.³

The Canadian government's stated purpose in introducing the TFSA was to "complement existing registered savings plans" and the RRSP in particular.⁴ Such a measure had been under consideration for some time. For example, in 2005, an economist with the federal government commented that a tax-prepaid savings plan

1 Others are the deferred profit-sharing plan (DPSP), pooled registered pension plan (PRPP), registered pension plan (RPP), specified pension plan (SPP), registered education savings plan (RESP), and registered disability savings plan (RDSP).

2 Exceptions are RRSP withdrawals for the home buyers' plan (HBP) and lifelong learning plan (LLP).

3 See Jonathan R. Kesselman and Finn Poschmann, "Expanding the Recognition of Personal Savings in the Canadian Tax System" (2001) 49:1 *Canadian Tax Journal* 40-101.

4 Canada, Department of Finance, 2008 Budget, Budget Plan, February 26, 2008, at 277 (<https://budget.gc.ca/2008/pdf/plan-eng.pdf>).

would “supplement existing federal measures that encourage personal savings” and would be “a measure to supplement retirement income.”⁵ The federal government, in its 2003 federal budget, also remarked that a tax-prepaid savings plan “could be a useful and appropriate mechanism to improve the tax treatment of savings and to provide additional savings opportunities for Canadians.”⁶ However, the impact of the introduction of the TFSA on RRSP contributions is an empirically underexplored issue. That is, did TFSA contributions represent new savings, or did they displace savings that would otherwise have been held in RRSPs? The purpose of the research reported in this article is to empirically investigate this question.

Using data from Statistics Canada’s Longitudinal Administrative Databank (LAD), a data set that contains the annual TFSA and RRSP contributions for a sample of 20 percent of Canadian taxfilers from 2009 through 2015, we find that a significant displacement effect occurred between the RRSP and the TFSA, such that a 1 percent increase in TFSA contributions reduced RRSP contributions by approximately 0.4 percent. This displacement effect is observed consistently across different demographic groups. In general, Canadians appear to have diverted their savings away from RRSPs and into TFSAs since the introduction of the TFSA in 2009.

The displacement between the RRSP and the TFSA is problematic for at least two reasons. First, Canadians may not be accumulating enough long-term savings to allow for a comfortable retirement. A recent report on the retirement savings of Canadians found that only 47 percent of those aged 55 to 64 have accrued pension benefits, and that “[t]he vast majority of these Canadians retiring without an employer pension plan have totally inadequate retirement savings.”⁷ Furthermore, “[o]nly a small minority (roughly 15-20 per cent) of middle-income Canadians retiring without an employer pension plan have saved anywhere near enough for retirement.”⁸ Unlike the RRSP, the TFSA does not impose restrictions on early withdrawals. If Canadians are diverting savings away from RRSPs in favour of shorter-term savings in TFSAs, the deficiency in long-term savings will only increase in severity, especially for middle-income and low-income individuals, who constitute the majority of the Canadian population. Second, the Canadian government relies on deferred RRSP withdrawals as an important source of future tax revenues, especially as workers in the baby boomer generation retire and begin to draw on their RRSPs. To the extent

5 Marc LeBlanc, *Tax Pre-Paid Savings Plans* (Ottawa: Parliamentary Information and Research Service, Library of Parliament, Economics Division, July 27, 2005), at 1-14. See also Kesselman and Poschmann, *supra* note 3.

6 Canada, Department of Finance, 2003 Budget, Budget Plan 2003, February 18, 2003, at 140.

7 Richard Shillington, *An Analysis of the Economic Circumstances of Canadian Seniors* (Ottawa: Broadbent Institute, February 2016), at 3.

8 Ibid. See also Bob Baldwin, *Assessing the Retirement Income Prospects of Canada’s Future Elderly: A Review of Five Studies*, C.D. Howe Institute Commentary no. 456 (Toronto: C.D. Howe Institute, September 2016), who concludes that a decline in the standard of living during retirement is “largely a middle- and upper-income earner problem, concentrated among the youngest age group and those not participating in a workplace pension plan” (*ibid.*, at 1).

that Canadians' RRSP savings are displaced by TFSA savings, the Canadian government faces a looming shortfall of future tax revenues, since TFSA investment income is tax-free and tax revenues from RRSP withdrawals will be less than expected.⁹

The remainder of the article proceeds as follows. In the next section, we review relevant public finance literature to situate our research, and develop our hypothesis. Then we discuss our methodology and sample description. Next, we present the results of our analysis. The article concludes with a discussion of the implications of our research.

BACKGROUND LITERATURE AND HYPOTHESIS DEVELOPMENT

Several recent studies compare RRSP and TFSA usage in the Canadian context. Kesselman¹⁰ compares the features of the TFSA and the RRSP, and conducts a comparative analysis of TFSA usage by income and age. He finds a steep decline of TFSA maximization rates from 2009 to 2014, especially among modest- to low-income individuals and young individuals, and suggests that TFSA contributions are likely to be savings diverted from other sources such as taxable savings and RRSPs. Messacar¹¹ investigates aggregate RRSP contributions among taxfilers aged 25 to 54 around the time that the TFSA was introduced and finds that RRSP contributions declined from \$30.6 billion in 2009 to \$22.5 billion in 2013. In contrast, TFSA contributions during this time period increased from \$9 billion to \$15.9 billion.

Lavecchia¹² and Zaman¹³ investigate TFSA usage, using data from the Survey of Financial Security (SFS). Both studies find that TFSAs are more popular among older, highly educated, and higher net worth families. Using a subsample of families with children, Lavecchia further finds that higher TFSA balances displace taxable savings in fixed-income assets but do not significantly affect RRSP balances.

It is noteworthy that the above studies use different data sources. Kesselman uses TFSA statistics published by the Canada Revenue Agency. The SFS data used in

9 Kevin Milligan, "Policy Forum: The Tax-Free Savings Account—Introduction and Simulations of Potential Revenue Costs" (2012) 60:2 *Canadian Tax Journal* 355-60.

10 Jonathan Kesselman, "Tax-Free Savings Accounts: Expanding, Restricting, or Refining?" (2015) 63:4 *Canadian Tax Journal* 905-45.

11 Derek Messacar, "Trends in RRSP Contributions and Pre-Retirement Withdrawals, 2000 to 2013," *Economic Insights*, February 13, 2017, 1-9 (also published as Statistics Canada catalogue no. 11-626-X, no. 064, February 13, 2017) (www150.statcan.gc.ca/n1/pub/11-626-x/11-626-x2016064-eng.pdf).

12 Adam M. Lavecchia, *Tax-Free Savings Accounts: Who Uses Them and How?* Working Paper no. 1802E (Ottawa: University of Ottawa, Department of Economics, January 2018) (https://socialsciences.uottawa.ca/economics/sites/socialsciences.uottawa.ca/economics/files/1802e_1.pdf).

13 Ashraf Al Zaman, "The Distributional Impacts of Canada's Tax-Free Savings Accounts" (2017) 43:4 *Canadian Public Policy* 331-49.

Lavecchia's and Zaman's studies are derived from self-reported responses to a Statistics Canada survey. The LAD data used in Messacar's report are collected from the federal personal income tax forms of 20 percent of Canadian taxpayers. Unlike the SFS, which contains the year-end balances of RRSPs and TFSAs for selected years at the household level, the LAD data used by Messacar and in our study provide the amounts of RRSP and TFSA contributions by individual taxpayers for every year of the study period (in our study, 2009–2015). The large sample size and accurate contribution data provided by the LAD are suitable for examining the displacement between TFSA and RRSP contributions.

Outside Canada, the preponderance of public finance literature pertaining to potential displacement effects between savings accounts is within the US context.¹⁴ The United States has a pair of tax-favoured savings plans akin to Canada's RRSP and TFSA, namely, the individual retirement account (IRA) and the Roth IRA, respectively.¹⁵ Some US researchers have examined the extent to which taxpayers have converted a traditional IRA to a Roth IRA;¹⁶ others have suggested strategies for taxpayers to use in choosing between traditional IRAs and Roth IRAs based on factors such as current and future income tax rates and the investment time horizon.¹⁷ Several studies have

14 See, for example, the US studies cited in notes 15 through 18, *infra*. In the UK context, see Maureen Donnelly and Allister Young, "Policy Forum: Tax-Free Savings Accounts—A Cautionary Tale from the UK Experience" (2012) 60:2 *Canadian Tax Journal* 361–74; and United Kingdom, HM Revenue and Customs, *Individual Attitudes to Saving: Effect of ISAs on People's Saving Behaviour: Research into Attitudes and Motivations for Saving in ISAs* (London: HM Revenue and Customs, 2007) (<https://webarchive.nationalarchives.gov.uk/20140207061343/http://www.hmrc.gov.uk/research/working-paper-isa.pdf>). In the Denmark context, see Raj Chetty, John N. Friedman, Søren Leth-Petersen, Torben Heien Nielsen, and Tore Olsen, "Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark" (2014) 129:3 *Quarterly Journal of Economics* 1141–1219 (<https://doi.org/10.1093/qje/qju013>).

15 The major difference between the Canadian and US tax-favoured savings plans is that any contributions to a TFSA do not reduce the amount of available contributions to an RRSP, whereas any contributions to a Roth IRA reduce the amount of available contributions to an IRA.

16 See, for example, Sarah Holden and Steven Bass, *The IRA Investor Profile: Traditional IRA Investors' Activity, 2007–2014*, ICI Research Report (Washington, DC: Investment Company Institute, August 2016) (www.ici.org/pdf/rpt_16_ira_traditional.pdf).

17 See, for example, Leonard E. Burman, William G. Gale, and David Weiner, "The Taxation of Retirement Saving: Choosing Between Front-Loaded and Back-Loaded Options" (2001) 54:3 *National Tax Journal* 689–702 ([dx.doi.org/10.17310/ntj.2001.3.17](https://doi.org/10.17310/ntj.2001.3.17)); Julia M. Camp, David S. Hulse, and Cynthia Vines, "The Effect of the Form of Tax Incentives on Individuals' Savings Decisions" (2008) 18:1 *Journal of Business and Behavioral Sciences* 123–47; Warren B. Hsung, "Determinants of the Choice Between Roth and Deductible IRAs" (2007) 29:1 *Journal of the American Taxation Association* 27–42 (<https://doi.org/10.2308/jata.2007.29.1.27>); and Andrew D. Cuccia, Marcus M. Doxey, and Shane R. Stinson, *The Relative Effects of Economic and Non-Economic Factors on Taxpayers' Preferences Between Front-Loaded and Back-Loaded Retirement Savings Plans*, CRR WP 2017–7 (Chestnut Hill, MA: Boston College, Center for Retirement Research, July 2017).

examined whether employees who contribute to an employer-sponsored retirement savings plan (a 401(k)) are likely to additionally save in individual plans (such as IRAs and Roth IRAs); however, this stream of research has produced inconclusive results.¹⁸ Moreover, these studies have not examined how taxpayers' net IRA contributions were affected, if at all, when the Roth IRA was introduced in 1998.

As the above literature shows, there is limited empirical evidence on whether or the extent to which tax-prepaid savings increase or displace tax-deferred savings, and any such evidence that does exist is inconclusive. Our study aims to fill this gap by conducting a comprehensive study of the displacement effect of TFSAs on RRSPs using a comprehensive data set of Canadians taxpayers.

Life-cycle consumption theory models of saving decisions hypothesize that individuals will maximize the utility of savings over their lifetime.¹⁹ That is, individuals will save early in their lives so that they can accumulate assets for consumption in their retirement period. The tax incentive provided by RRSPs encourages Canadians to save for future consumption. When an additional type of tax-preferred savings plan (such as the TFSA) is introduced, individuals have to first decide whether they will contribute to this new savings plan. If they decide that they will, they then must decide whether the contribution will be funded by reducing their consumption or by reallocating pre-existing savings from other savings plans (such as the RRSP). On the one hand, by contributing to the new savings plan, individuals could save more tax (and thereby secure greater future consumption), making consumption today a less attractive option. In this case, individuals would reduce their consumption and contribute to TFSAs without affecting their contributions to RRSPs. On the other hand, if individuals would like to maintain the same level of total tax-preferred savings to achieve their optimal consumption, and if they are indifferent about the tax implications of RRSPs versus TFSAs, those individuals who chose to contribute to TFSAs would divert their savings away from RRSPs and into TFSAs.

Moreover, if both possibilities apply simultaneously, we would expect a partial displacement effect of TFSAs on RRSPs to occur.²⁰ That is, in general, individuals will neither reduce their consumption to be able to contribute the maximum allowable amount to their TFSAs, nor apportion all of their savings away from RRSPs and

18 See John Beshears, James J. Choi, David Laibson, and Brigitte C. Madrian, "Does Front-Loading Taxation Increase Savings? Evidence from Roth 401(k) Introductions" (2017) 151:1 *Journal of Public Economics* 84-95. See also B. Douglas Bernheim, "Taxation and Saving," in Alan J. Auerbach and Martin Feldstein, eds., *Handbook of Public Economics*, vol. 3 (Amsterdam: Elsevier Science, 2002), 1173-1249; and John N. Friedman, "Tax Policy for Retirement Savings," in Alan J. Auerbach and Kent Smetters, eds., *The Economics of Tax Policy* (Oxford: Oxford University Press, 2017), chapter 10, for a review of this literature.

19 See Franco Modigliani, "The Life-Cycle Hypothesis of Saving Twenty Years Later," in M. Parkin and A.R. Nobay, eds., *Contemporary Issues in Economics* (Manchester: Manchester University Press, 1975), 2-35.

20 Martin Feldstein, "Social Security and Saving: The Extended Life Cycle Theory" (1976) 66:2 *American Economic Review* 77-86, discusses why both effects should occur simultaneously.

into TFSAs.²¹ Thus, we would predict that savings in TFSAs displace savings in RRSPs, but not completely. As a result, total savings in TFSAs and RRSPs combined would be greater than total savings in RRSPs alone, but year-over-year total savings in RRSPs would decline. Our hypothesis is as follows:

Hypothesis: *Savings in TFSAs partially displace savings in RRSPs.*

METHODOLOGY AND SAMPLE DESCRIPTION

We obtained a panel of individual taxfilers' data from the Statistics Canada's LAD.²² This data set provides annual RRSP and TFSA contributions and withdrawals, along with annual taxable incomes and demographic characteristics such as age, gender, family size, and province of residence, of 20 percent of all Canadians who filed a federal tax return each year. Our sample period starts in 2009 and ends in 2015; 2009 is the year when the TFSA was introduced, and 2015 is the most recent year with available LAD data.

Table 1, panel A, lists the annual participation rates—that is, the percentage of taxfilers in the LAD who made contributions to an RRSP and/or a TFSA—in each year from 2009 to 2015. The accompanying graph (figure 1) shows a steady decline in the percentage of taxfilers who made net RRSP contributions, from 26 percent in 2009 to 22 percent in 2015. As well, the graph shows a steady increase in the percentage of taxfilers who made net TFSA contributions, from 16 percent in 2009 to 27 percent in 2015, surpassing the RRSP participation rate in 2013. Despite the growing popularity of the TFSA, 60 percent of the taxfilers in the data set did not contribute to either an RRSP or a TFSA by 2015.

Panel B of table 1 reports the average participation rates of the RRSP and TFSA by income. The sample taxfilers are divided into four income quartiles based on their taxable income in each year, where Q1 denotes the lowest income quartile and Q4 denotes the highest income quartile. The TFSA appears to be more popular than the RRSP among individuals in the bottom income quartile: the participation rate is 11 percent for the TFSA and only 3 percent for the RRSP in this income group. This finding is in line with the Canadian government's intention for the TFSA to provide a saving incentive for low- to moderate-income Canadians. Participation rates in both accounts increase with income. The RRSP participation rate rises from 3 percent in the bottom income quartile (Q1) to 44 percent in the top income quartile (Q4). The average TFSA participation rate exhibits less of an increase, from 11 percent (Q1) to 23 percent (Q4). Eighty percent of individuals in the bottom income quartile

21 See Derek Messacar, "Crowd-Out, Education, and Employer Contributions to Workplace Pensions: Evidence from Canadian Tax Records" (2018) 100:4 *Review of Economics and Statistics* 648-63, who finds a displacement effect of RPP contributions on other forms of savings, including RRSPs.

22 We used data set #4107. Approval was received to access this data from Statistics Canada's Research Data Centre (RDC). All data reported in this article have been approved for release by the RDC. The data set contains no identifying information of any Canadian taxfiler.

TABLE 1 Participation Rates for RRSPs and TFSAs, 2009-2015 (Percent)

Panel A Participation rates by year				
Year	RRSP	TFSA	Both	Neither
2009	26	16	7	64
2010	26	18	7	64
2011	25	20	8	63
2012	24	22	8	62
2013	23	24	8	62
2014	23	25	9	61
2015	22	27	9	60
Average.....	27	22	8	62

Panel B Participation rates by income group				
Income quartile	RRSP	TFSA	Both	Neither
Q1	3	11	1	80
Q2	14	17	4	64
Q3	29	20	8	47
Q4	44	23	13	35

Panel C Participation rates by age group				
Age group	RRSP	TFSA	Both	Neither
Under 25	7	14	2	77
25-29	21	17	6	61
30-34	27	15	7	56
35-39	28	14	6	53
40-44	27	13	6	53
45-49	28	14	7	53
50-54	30	17	8	52
55-59	29	20	9	50
60-64	22	24	8	51
65-70	10	26	4	56

RRSP = registered retirement savings plan; TFSA = tax-free savings account.

Note: This table lists the percentage of individuals in the Longitudinal Administrative Databank sample contributing to either an RRSP or a TFSA, both an RRSP and a TFSA, and neither, by year.

do not contribute to either an RRSP or a TFSA. This number drops to 35 percent in the top income quartile. These findings suggest that the top earners claim the most tax benefits from the TFSA and the RRSP.

Panel C of table 1 reports the average participation rates by age. Participation in the RRSP exhibits an inverted U-shape across the 10 age groups: it increases from 7 percent in the under 25 age group, peaks at 30 percent in the 50-54 age group, and declines to 10 percent in the 65-70 age group. In contrast, participation in the

FIGURE 1 RRSP and TFSA Participation Rates, 2009-2015

RRSP = registered retirement savings plan; TFSA = tax-free savings account.

TFSA increases with age, from 14 percent in the under 25 group to 26 percent in the 65-70 age group. Individuals in both the youngest and the oldest age groups used the TFSA more than the RRSP, suggesting that the TFSA better caters to young people with more distant retirement saving needs and to seniors approaching ineligibility to make RRSP contributions.

Table 2 reports the percentages of taxfilers in the sample who maximized their contributions to RRSPs and TFSAs. We allow a \$500 cushion; therefore, the maximization rates reflect taxfilers whose ending RRSP and TFSA contribution room in a given year is less than \$500. Panel A shows that the percentage of taxfilers who maximized their contributions to RRSPs declined slightly, from 3 percent in 2009 to 2 percent in 2015. In contrast, the percentage of taxfilers who maximized their TFSA contributions declined more markedly, from 10 percent in 2009 to 2 percent in 2015. The growing unused TFSA contribution room suggests insufficient justification to further raise the TFSA contribution limit. Panels B and C of table 2 compare the maximization rates across the income quartiles and age groups, respectively. A higher proportion of individuals maximized the contribution limits of the RRSP and TFSA in the higher income and older age groups. These findings support Kesselman's argument that the TFSA most benefits individuals with financial assets and the means to shift savings from taxable accounts to tax-free accounts, and that the ability for the TFSA to create new savings for the average Canadian is limited.²³

23 Supra note 10.

TABLE 2 RRSP and TFSA Maximization Rates, 2009-2015 (Percent)

Panel A Maximization rates for the full sample		
Year	RRSP	TFSA
2009	3	10
2010	3	8
2011	3	6
2012	2	5
2013	2	4
2014	2	4
2015	2	2
Average	2	6
Panel B Maximization rates by income group		
Income quartile	RRSP	TFSA
Q1	0	3
Q2	1	5
Q3	2	7
Q4	5	8
Panel C Maximization rates by age group		
Age group	RRSP	TFSA
Under 25	1	1
25-29	1	3
30-34	1	2
35-39	1	3
40-44	2	3
45-49	2	4
50-54	3	6
55-59	4	8
60-64	4	11
65-70	3	14

RRSP = registered retirement savings plan; TFSA = tax-free savings account.

Note: This table lists the maximization rates of RRSPs and TFSAs in each year from 2009 to 2015. RRSP (TFSA) maximization is defined as the contribution room of RRSP (TFSA) in a year that is less than \$500. In each year, the contributors are taxfilers in the Longitudinal Administrative Databank who are between ages 18 and 70, within the 1% to 99% income percentile, and who have made a net RRSP and/or TFSA contribution in that year.

To examine the relationship in savings between the RRSP and the TFSA at the individual level, we focus our subsequent analysis on taxfilers who were “contributors” in 2009 through 2015. That is, for each year, we restrict our sample to taxfilers who made a positive net contribution to an RRSP and/or a TFSA in that year, since our goal is to investigate taxpayers’ *saving* patterns using the two tax-preferred savings accounts. Thus, taxfilers who used neither an RRSP nor a TFSA in a given year from

2009 to 2015 are excluded from further analysis, as are taxfilers who made a net withdrawal from either an RRSP or a TFSA.²⁴ The net contribution of a taxfiler in each year is defined as the difference between the amount contributed and the amount withdrawn (if any) in that year. We further restrict our sample to taxfilers in the age group of 18 to 70 because an individual must be 18 years old to own a TFSA and an individual can no longer make an RRSP contribution after age 71. We exclude individuals in the top and bottom 1 percent brackets of total income to avoid biased results from individuals in these extreme income groups.²⁵

Table 3 reports average net RRSP and TFSA contributions as well as the number of contributors in each year from 2009 to 2015. The number of taxfilers exceeds 1 million in each year, and the overall sample contains over 2.3 million unique taxfilers. The average net RRSP contribution declines every year from \$2,100 in 2009 to \$1,600 in 2015, whereas the average net TFSA contribution increases every year from \$1,700 in 2009 to \$3,600 in 2015. The average net TFSA contribution surpasses the average net RRSP contribution in 2011. The parallel graph (figure 2) illustrates these patterns. The decline in average RRSP contributions and the increase in average TFSA contributions year over year are consistent with Messacar's findings about the aggregate RRSP and TFSA contributions.²⁶

Table 4 describes other characteristics of our sample. An average taxfiler in our sample made net RRSP contributions of \$2,100 per year and net TFSA contributions of \$2,600 per year. The average sample income of \$43,100 is comparable with the \$42,500 average income from Statistics Canada's Canadian Income Survey over the same time period.²⁷ The median income of \$43,200 is higher than the \$31,400 median from the Canadian Income Survey, suggesting a larger number of high-income individuals among the RRSP/TFSA contributors than in the Canadian population. The contributors had a median age of 47 years (a mean age of 45.9 years), were 56 percent female and 52 percent married individuals, and had an average family size of 2.64 persons. Compared with the 2011 census, where the Canadian population had a median age of 41 years, were 51 percent female and

24 It is possible for a taxfiler to be in a net savings position if he or she withdraws funds from an RRSP (TFSA) but contributes more than the amount of the withdrawal to a TFSA (RRSP) in a given year. In untabulated results, we find that including these individuals in the sample (using inverse hyperbolic sine transformation of the dollar variables) does not change our inference about the results.

25 The term "sample" in this article refers to taxfilers aged 18 to 70 who made net contributions to a TFSA and/or an RRSP, and who were not within the top or bottom 1 percent of income earners.

26 Messacar, in his descriptive analysis, *supra* note 11, uses taxfilers aged 25 to 54.

27 Statistics Canada table 11-10-0238-01, "Distribution of Market, Total and After-Tax Income of Individuals, Canada, Provinces and Selected Census Metropolitan Areas" (www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1110023801). The average and median are calculated with the total income of all Canadians in the period 2009-2015.

TABLE 3 Mean RRSP and TFSA Net Contributions Among Contributors, 2009-2015

Year	RRSP contribution (\$)	TFSA contribution (\$)	No. of contributors
2009	2,100	1,700	1,069,205
2010	2,100	2,100	1,067,780
2011	1,900	2,300	1,078,705
2012	1,900	2,300	1,071,735
2013	1,800	2,600	1,080,035
2014	1,700	2,800	1,086,655
2015	1,600	3,600	1,118,340

RRSP = registered retirement savings plan; TFSA = tax-free savings account.

Note: This table lists the average RRSP and TFSA net contribution by year and the number of contributors from 2009 to 2015. In each year, the contributors are taxfilers in the Longitudinal Administrative Databank who are between ages 18 and 70, within the 1% to 99% income percentile, and who have made a net RRSP and/or TFSA contribution in that year.

FIGURE 2 Mean RRSP and TFSA Contributions Among Contributors, 2009-2015

RRSP = registered retirement savings plan; TFSA = tax-free savings account.

TABLE 4 Descriptive Statistics

	Mean	Std. dev.	P25	P50	P75
RRSP variables (\$)					
Net contribution	2,100	2,844	0	1,000	3,000
Contribution limit	35,800	31,982	10,400	27,300	52,400
TFSA variables (\$)					
Net contribution	2,600	4,527	0	70	5,000
Contribution limit	17,900	11,471	7,400	15,000	25,500
RPP contribution (\$)	750	1,569	0	0	370
Total income (\$)	43,100	18,119	29,000	43,200	57,400
Age	45.9	13.79	34	47	57
Female	0.56	0.5	0	1	1
Married	0.52	0.5	0	1	1
Family size	2.64	1.23	2	2	4

RPP = registered pension plan; RRSP = registered retirement savings plan; TFSA = tax-free savings account.

Note: This table describes the key variables used for the subsequent regression analysis. The sample include taxfilers in the Longitudinal Administrative Databank (LAD) who are between ages 18 and 70, within the 1st and 99th income percentile, and who made RRSP and/or TFSA contributions in a given year from 2009 to 2015. All the dollar variables are rounded and weighted using the population weighting variable provided by the LAD. “P25,” “P50,” and “P75” denote the 25th, 50th, and 75th percentiles, respectively, of the variables.

46 percent married individuals, and had an average family size of 2.5, our sample has a slightly higher proportion of females, a comparable family size, and a slightly higher average age.²⁸

To determine empirically whether there is a significant displacement effect of TFSAs on RRSP savings, we use the following regression equation as our main specification:

$$RRSPNET_{i,t} = \alpha + \beta TFSA NET_{i,t} + \gamma Controls_{i,t} + Year_t + Province_i + \varepsilon_{i,t}. \quad (1)$$

In this equation, $RRSPNET_{i,t}$ denotes the net amount of the RRSP contribution of individual i in year t . $TFSA NET_{i,t}$ is the net amount of the TFSA contribution made by the same individual i in year t . The partial displacement hypothesis will be supported if the β coefficient on $TFSA NET_{i,t}$ is significant and negative, and more than -1 but less than 0 .²⁹

28 Statistics Canada, Census Profile, 2011 Census, (Code 01), Statistics Canada catalogue no. 98-316-XWE, released October 24, 2012 (www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E).

29 The coefficient on the TFSA variable should be interpreted as a correlation between TFSAs and RRSPs. Our results do not provide any inference regarding the direction of causality between TFSAs and RRSPs. In other words, we do not test whether TFSAs cause the reduction in contributions to RRSPs or RRSPs cause the reduction in contributions to TFSAs.

$Controls_{i,t}$ denotes the vector of the control variables, which includes demographic characteristics that have been found to be related to people's saving behaviour, namely, income, age, gender, and marital status.³⁰ *Income Q4 (Q1)* denotes the highest (lowest) income quartile based on the total taxable income of individual taxfilers in each year. *Income Q1* is dropped in the regressions to avoid multicollinearity. We divide the sample taxfilers into 10 age groups of under 25, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, and 65-70. The age group indicators are included to control for the potential non-linear effect of age on retirement savings. *Female* is a dummy variable that equals 1 for female and 0 for male. *Married* is a dummy variable that equals 1 if an individual is married and 0 otherwise.

We also control for registered pension plan (RPP) contributions (*RPP CTR*), indicative of pre-existing pension savings through an employer pension, since empirical research suggests that the presence of employer-provided pensions affects saving behaviour.³¹ The annual RRSP contribution limit (*RRSP LMT*) and the cumulative TFSA contribution limit (*TFSA LMT*) are included in the regressions since individuals who contribute close to the maximum amount in one of the two accounts may divert funds into the other.³² Year, province, and family-size fixed effects are included in the regression to control for unobservable fixed effects over time, across provinces, and across different family sizes. We apply a log transformation for all the dollar variables to reduce the skewness in the raw variables.

30 See, for instance, Esther Duflo, William Gale, Jeffrey Liebman, Peter Orszag, and Emmanuel Saez, "Saving Incentives for Low- and Middle-Income Families: Evidence from a Field Experiment with H&R Block" (2006) 121:4 *Quarterly Journal of Economics* 1311-46; Nicole Votolato Montgomery, Lisa R. Szykman, and Julie Agnew, *Temporal Distance to Retirement and Communication Framing: Enhancing Retirement Financial Decision Making*, Financial Security Project at Boston College FSP 2011-4 (Chestnut Hill, MA: Boston College, November 2011); Annamaria Lusardi and Olivia S. Mitchell, *Financial Literacy and Planning: Implications for Retirement Wellbeing*, NBER Working Paper no. 17078 (Cambridge, MA: National Bureau of Economic Research, May 2011); Beshears et al., supra note 18; Rob Alessie, Stefan Hochguertel, and Arthur van Soest, "Non-Take-Up of Tax-Favored Savings Plans: Evidence from Dutch Employees" (2006) 27:4 *Journal of Economic Psychology* 483-501; and David Card and Michael Ransom, "Pension Plan Characteristics and Framing Effects in Employee Savings Behavior" (2011) 93:1 *Review of Economics and Statistics* 228-43.

31 See Mariacristina Rossi, "Examining the Interaction Between Saving and Contributions to Personal Pension Plans: Evidence from the BHPS" (2009) 71:2 *Oxford Bulletin of Economics and Statistics* 253-71; and Card and Ransom, supra note 30. An individual's RRSP contribution room is reduced by his or her pension adjustment, so it is important to control for RPP contributions, since individuals with RPP contributions may have less ability to contribute to RRSPs than individuals without RPP contributions.

32 Annual RRSP contribution limits are included in the LAD. We use the following equation to calculate the cumulative TFSA contribution limit:

$$\text{TFSA contribution limit}_{i,t} = \text{cumulative legal TFSA contribution limit}_t - \text{cumulative TFSA contributions from 2009 to year } t - 1_{i,t} + \text{cumulative TFSA withdrawals from 2009 to year } t - 1_{i,t},$$

where i denotes individual in the sample and t denotes the year. The legal TFSA contribution limit was \$5,000 in 2009-2012, \$5,500 in 2013-2014, and \$10,000 in 2015.

RESULTS

Table 5 presents the pooled OLS regression baseline results examining the displacement effect between RRSPs and TFSAs. In column 1, where the regression controls for year, province, and family-size fixed effects only, *TFSA NET* exhibits a negative and significant coefficient. Column 2 further controls for income, age, RPP contributions, and RRSP and TFSA contribution limits, and shows a consistent negative and significant coefficient for *TFSA NET*.

On the basis of the estimated coefficient in column 2 of table 5, a 1 percent increase in net TFSA contributions would reduce the net RRSP contributions by 0.402 percent. In dollar terms, using the average net TFSA contribution of \$2,600 and average net RRSP contribution of \$2,100, a \$26 increase (1 percent) in TFSA contributions would reduce RRSP contributions by \$8.44. Thus, our baseline results suggest a partial displacement effect between the TFSA and the RRSP.

We next investigate whether the baseline results are driven by the unobservable heterogeneous saving preferences among different subsamples of individuals.³³ To give an extreme example, if a significant number of the sample individuals with a strong preference for the TFSA or the RRSP contribute to their preferred account only and the remainder of the sample individuals are indifferent as between the TFSA and the RRSP, the observed negative coefficient of the TFSA variable may only reflect the contrasting saving patterns among the subsample individuals with strong preferences for the TFSA or the RRSP. We conduct multiple robustness checks to address this concern.

First, we add individual fixed effects in the regressions to control for time-invariant individual saving preferences. The coefficient of *TFSA NET* in the individual fixed-effect model now estimates the association between TFSA contributions and RRSP contributions over time among individuals. Columns 3 and 4 of table 5 nevertheless show a significant and negative coefficient for *TFSA NET*. The displacement effect remains statistically and economically significant: the regression in column 4 suggests that a 1 percent increase in the contribution to a TFSA crowds out the contribution to an RRSP by 0.191 percent for the same individual. The time-invariant variables such as age group and gender are omitted in the individual fixed-effect regressions.

Second, we use our sample taxfilers' RRSP saving pattern in the pre-TFSA years (2003–2008) as a proxy for their retirement saving preferences, and test whether the baseline results are driven by the prior preference toward or against RRSPs among the sample taxfilers. Specifically, we classify our sample into four categories: those

33 For early discussions about individuals with “a taste for savings,” see Philip Cagan, *The Effect of Pension Plans on Aggregate Savings: Evidence from a Sample Survey*, Occasional Paper no. 95 (New York: National Bureau of Economic Research, 1965); and George Katona, *Private Pensions and Individual Saving* (Ann Arbor, MI: University of Michigan, Institute for Social Research, Survey Research Center, 1965). The authors argue that their finding of higher saving rates among individuals with employer pensions could be explained by people with a “taste for saving” choosing to work for employers that offer pension plans.

TABLE 5 Displacement Between RRSP and TFSA, Baseline Regression Results

Independent variables	Regressions			
	(1)	(2)	(3)	(4)
<i>TFSA NET</i>	-0.487***	-0.402***	-0.204***	-0.191***
<i>RPP CTR</i>		-0.026***		0.030***
<i>RRSP LMT</i>		0.169***		0.490***
<i>TFSA LMT</i>		-0.465***		0.178***
<i>Income Q2</i>		1.290***		0.811***
<i>Income Q3</i>		2.360***		1.602***
<i>Income Q4</i>		3.311***		2.354***
<i>Age 25-29</i>		0.530***		
<i>Age 30-34</i>		0.684***		
<i>Age 35-39</i>		0.745***		
<i>Age 40-44</i>		0.861***		
<i>Age 45-49</i>		1.016***		
<i>Age 50-54</i>		1.215***		
<i>Age 55-59</i>		1.287***		
<i>Age 60-64</i>		0.771***		
<i>Age 65-70</i>		-0.432***		
<i>Female</i>		0.151***		
<i>Married</i>		0.012**		0.072***
Fixed effects ^a	Y, P, F	Y, P, F	Y, P, F, I	Y, P, F, I
<i>N</i>	6,913,485	6,913,485	6,913,485	6,913,485
Adjusted <i>R</i> ²	0.308	0.440	0.069	0.167

Notes: The dependent variable is *RRSP NET* in all regressions. Regressions (1) and (2) use pooled OLS regressions with province, year, and family-size fixed effects. Regressions (3) and (4) also include individual fixed effects, where rank-type variables including gender and age-group dummies are excluded. In all regressions, standard errors are clustered by individual.

*, **, and *** denote significant at the 10%, 5%, and 1% level, respectively.

Definition of variables:

RRSP NET is the natural log of (net RRSP contributions + 1).

TFSA NET is the natural log of (net TFSA contributions + 1).

RPP CTR is the natural log of (RPP contributions + 1).

RRSP LMT is the natural log of (RRSP contributions + 1).

TFSA LMT is the natural log of (TFSA contribution limit + 1), where the TFSA contribution limit equals the cumulative annual contribution limit since 2009 plus cumulative TFSA contributions of the individual since 2009 minus cumulative TFSA withdrawals of the individual since 2009.

Income Q2, Q3, and Q4 are indicator variables that equal 1 if an individual's total income is ranked in the 2nd, 3rd, and 4th quartiles in a given year, respectively, and equal 0 otherwise. Total income is the amount reported on line 150 of the T1 tax form.

Age group variables are indicator variables that equal 1 if an individual's age is in a given age group and equal 0 otherwise.

Female is an indicator variable that equals 1 if an individual is female and equals 0 otherwise.

Married is an indicator variable that equals 1 if an individual is married and equals 0 otherwise.

a Y = year; P = province; F = family size; I = individual.

who made a net RRSP contribution in all six years from 2003 through 2008 (“continuous” contributors); those who made a net RRSP contribution in three, four, or five of the six years (“frequent” contributors); those who made a net RRSP contribution in one or two of the six years (“occasional” contributors); and those who did not make a net RRSP contribution in any of the six years (“non”-contributors). If our baseline results were driven by the difference in preferences for RRSPs across the groups, the within-group variation in the displacement between RRSP and TFSA would be insignificant. However, the results in table 6 do not support this possibility. We find a significant displacement effect in all four groups based on individuals’ prior RRSP contribution patterns. Interestingly, the magnitude of the displacement effect varies across the four groups. The effect is strongest among the “non”-contributors, suggesting that the TFSA reflects most closely their saving preference relative to the RRSP. A 1 percent increase in TFSA contributions on average crowds out 0.566 percent of RRSP contributions among the “non”-contributors. On the other end of the savings spectrum, the “continuous” contributors experience only a modest displacement effect after the introduction of the TFSA: a 1 percent increase in TFSA contributions on average diverts 0.11 percent of RRSP savings. Individuals who already have a habit of saving appear to benefit more from the TFSA than those who do not.

Third, we investigate the displacement effect among individuals with different income levels and in different age groups, respectively. Column 1 of table 7 adds the interaction terms between the income quartile variables and *TFSA NET* in the regression. We find a significant displacement effect across all four income groups, suggesting that the baseline results are not driven by the cross-group difference in the preference for the RRSP or the TFSA. The displacement is strongest in the bottom income quartile (Q1). A 1 percent increase in TFSA contributions on average reduces RRSP contributions by 0.525 percent. In contrast, the reduction in RRSP contribution is only 0.305 percent (0.525 percent – 0.220 percent) in the top income quartile (Q4). This finding is consistent with low-income individuals substituting more savings toward TFSAs, since they benefit less from RRSP tax deductions than do high-income individuals. This finding is also consistent with Kesselman’s finding that TFSAs benefit high-income individuals by sheltering more tax-preferred savings, part of which could be reallocated from their taxable savings.³⁴

Column 2 of table 7 adds interaction terms between the age groups and *TFSA NET* in the baseline regression. Again, the displacement effect remains significant across all age groups. We further observe a non-linear association between age and the displacement effect: individuals in the age groups of under 25, 60-64, and 65-70 exhibit the strongest displacement effect, and the effect is modest among the individuals between age 25 and 59. The TFSA appeals to the younger age demographic, who tend to earn relatively modest incomes. The tax benefits of saving in the RRSP is thus limited for this age and income demographic. The TFSA is also

34 Supra note 10.

TABLE 6 Displacement Between RRSP and TFSA, by Pre-2009 RRSP Contribution Patterns

Independent variables ^b	RRSP contribution patterns in 2003–2008 ^a			
	Continuous	Frequent	Occasional	Non
<i>TFSA NET</i>	–0.110***	–0.258***	–0.394***	–0.566***
<i>RPP CTR</i>	–0.039***	–0.031***	–0.037***	–0.037***
<i>RRSP LMT</i>	0.175***	0.225***	0.175***	0.077***
<i>TFSA LMT</i>	–0.106***	–0.067***	–0.125***	–0.347***
<i>Income Q2</i>	1.409***	1.205***	1.071***	0.808***
<i>Income Q3</i>	2.160***	1.835***	1.732***	1.713***
<i>Income Q4</i>	2.873***	2.651***	2.554***	2.609***
<i>Age 25–29</i>	–0.344	–0.287***	–0.144***	0.311***
<i>Age 30–34</i>	–0.319	–0.455***	–0.432***	0.099***
<i>Age 35–39</i>	–0.248	–0.549***	–0.618***	–0.102***
<i>Age 40–44</i>	–0.134	–0.462***	–0.558***	–0.123***
<i>Age 45–49</i>	0.041	–0.309***	–0.513***	–0.125***
<i>Age 50–54</i>	0.226	–0.156***	–0.479***	–0.087***
<i>Age 55–59</i>	0.261	–0.187***	–0.548***	–0.087***
<i>Age 60–64</i>	–0.171	–0.800***	–1.205***	–0.396***
<i>Age 65–70</i>	–1.166***	–1.963***	–2.292***	–0.968***
<i>Female</i>	0.084***	0.085***	0.083***	0.150***
<i>Married</i>	–0.021**	–0.002	–0.002	0.049***
Fixed effects ^c	Y, P, F	Y, P, F	Y, P, F	Y, P, F
N	1,388,355	1,654,920	1,246,820	1,936,690
Adjusted R ²	0.206	0.314	0.405	0.487

Notes:

The dependent variable is *RRSP NET* in all regressions.

*, **, and *** denote significant at the 10%, 5%, and 1% level, respectively.

a Continuous: taxfilers contributed to an RRSP in all six years (2003–2008). Frequent: taxfilers contributed to an RRSP in three, four, or five of the years 2003 through 2008. Occasional: taxfilers contributed to an RRSP in one or two of the years 2003 through 2008. Non: taxfilers did not contribute to an RRSP in any of years 2003 through 2008.

b Variable definitions are listed in table 5, “Notes.”

c Y = year; P = province; F = family size.

attractive for seniors because unlike the RRSP, which excludes contributions from individuals over age 71, the TFSA has no upper age limit for making contributions or mandatory withdrawals.

Last, we evaluate the impact of TFSA contribution limit increases on the displacement between RRSPs and TFSAs. The annual TFSA contribution limit increased from \$5,000 to \$5,500 in 2013 and increased again to \$10,000 in 2015. If increases in the TFSA contribution limit allowed individuals to transfer more planned RRSP contributions to their TFSA, the displacement effect would become more pronounced over time. On the other hand, if increases in limits encouraged people to save more or shelter more taxable savings, the displacement effect would remain stable or

TABLE 7 Displacement Between RRSP and TFSA, Income and Age Effect

Independent variables ^a	Income effect (1)	Age effect (2)
<i>TFSA NET</i>	-0.525***	-0.491***
<i>TFSA NET*Income Q2</i>	-0.001	
<i>TFSA NET*Income Q3</i> ^b	0.100***	
<i>TFSA NET*Income Q4</i> ^b	0.220***	
<i>TFSA NET*Age 25-29</i>		0.068***
<i>TFSA NET*Age 30-34</i>		0.123***
<i>TFSA NET*Age 35-39</i>		0.142***
<i>TFSA NET*Age 40-44</i>		0.146***
<i>TFSA NET*Age 45-49</i>		0.149***
<i>TFSA NET*Age 50-54</i>		0.151***
<i>TFSA NET*Age 55-59</i>		0.117***
<i>TFSA NET*Age 60-64</i>		-0.006***
<i>TFSA NET*Age 65-70</i>		-0.130***
<i>RPP CTR</i>	-0.025***	-0.029***
<i>RRSP LMT</i>	0.172***	0.156***
<i>TFSA LMT</i>	-0.453***	-0.499***
<i>Income Q2</i>	1.123***	1.281***
<i>Income Q3</i>	1.690***	2.362***
<i>Income Q4</i>	2.220***	3.315***
<i>Age 25-29</i>	0.470***	0.150***
<i>Age 30-34</i>	0.632***	0.110***
<i>Age 35-39</i>	0.710***	0.126***
<i>Age 40-44</i>	0.834***	0.231***
<i>Age 45-49</i>	0.988***	0.368***
<i>Age 50-54</i>	1.181***	0.536***
<i>Age 55-59</i>	1.250***	0.706***
<i>Age 60-64</i>	0.742***	0.787***
<i>Age 65-70</i>	-0.403***	0.569***
<i>Female</i>	0.135***	0.155***
<i>Married</i>	0.023***	0.009**
Fixed effects ^c	Y, P, F	Y, P, F
N	6,913,485	6,913,485
Adjusted R ²	0.449	0.447

Notes:

The dependent variable is *RRSP NET* in the regressions.

*, **, and *** denote significant at the 10% , 5%, and 1% level, respectively.

a The control variables reported in table 4 are included in the regressions. Variable definitions are listed in table 5, "Notes."

b The coefficients for *TFSA NET*Income Q3* and *TFSA NET*Income Q4* are positive, but nonetheless support a crowd-out effect. These positive coefficients suggest that the displacement effect in *Income Q3* and *Q4* are less negative than *Q1* (the base group).

The net effect of TFSA contributions on RRSP contributions in *Income Q3* is calculated as $-0.525 + 0.1 = -0.425$, and for *Income Q4*, $-0.525 + 0.220 = -0.305$.

c Y = year; P = province; F = family size.

decrease over time. Table 8 reports the regression results by year. The coefficient of *TFSA NET* is significant and negative for each year from 2009 to 2015. Furthermore, the magnitude of the coefficient increases every year, suggesting that TFSAs increasingly crowd out savings in RRSPs over time. The displacement effect is the most pronounced in 2015, suggesting that the one-time spike to the TFSA contribution limit in 2015 had little impact on creating new tax-preferred savings.

ROBUSTNESS TESTS

We next examine whether our main finding is robust in relation to the definitions of the key dependent and independent variables, alternative control variables, demographic factors, and an alternative regression method.

First, we test whether our finding is robust in relation to alternative definitions of the RRSP and TFSA variables. Because the log transformation requires the net contributions to be non-negative, individuals with negative RRSP or TFSA contributions but with positive total contributions (that is, net savers) are excluded from the above analysis. We provide three alternative definitions of the RRSP and TFSA variables to also include net savers with negative contributions in an RRSP or a TFSA. First, we define *TFSA (RRSP) dummy*, which is set to 1 if the TFSA (RRSP) net contribution is positive and is set to 0 otherwise. Negative contributions are coded as 0 on the basis of this definition.³⁵ Second, $\text{Sinh}^{-1}(\text{TFSA})$ and $\text{Sinh}^{-1}(\text{RRSP})$ are defined as the inverse hyperbolic sine transformation of the TFSA and RRSP net contributions, respectively.³⁶ The inverse hyperbolic sine transformed variables are highly correlated with the log transformed ones but do not restrict non-negative values. Third, we define *TFSA/Income* and *RRSP/Income* as the percentages of TFSA and RRSP contributions in an individual's total income, respectively. Negative contributions are coded as 0. Table 9 reports the regression results using the three alternative variable definitions. We find consistent negative coefficients of the TFSA variable across all specifications. Accordingly, our inferences about the displacement between RRSP and TFSA contributions are not subject to the log transformation of the RRSP and TFSA variables.

Second, we control for the presence of investment income as the proxy for individuals' taxable investments. Because the introduction of the TFSA allows individuals to shelter more of their investments from taxes, "new" saving in TFSAs may be redirected at taxable investments rather than RRSP contributions. We therefore expect less of a displacement effect among individuals with investment income. We define investment income as the sum of taxable dividends, capital gains, rental income, and interest.

35 In order to run the logit regression on the binary RRSP variable, individuals with net total withdrawals are also included in this specification.

36 The inverse hyperbolic sine transformation is defined as $\text{Sinh}^{-1}(X) = \ln(X + (X^2 + 1)^{1/2})$.

TABLE 8 Displacement Between RRSP and TFSA, Regressions by Year

Independent variables ^a	Year					
	2009	2010	2011	2012	2013	2014
<i>TFSA NET</i>	-0.352***	-0.375***	-0.393***	-0.414***	-0.424***	-0.428***
<i>RPP CTR</i>	-0.029***	-0.025***	-0.022***	-0.025***	-0.025***	-0.026***
<i>RRSP LMT</i>	0.187***	0.183***	0.176***	0.172***	0.161***	0.157***
<i>TFSA LMT</i>		-0.526***	-0.435***	-0.443***	-0.524***	-0.459***
<i>Income Q2</i>	1.434***	1.398***	1.351***	1.281***	1.262***	1.190***
<i>Income Q3</i>	2.391***	2.380***	2.382***	2.369***	2.376***	2.335***
<i>Income Q4</i>	3.234***	3.268***	3.305***	3.309***	3.358***	3.360***
<i>Age 25-29</i>	0.584***	0.621***	0.628***	0.555***	0.512***	0.458***
<i>Age 30-34</i>	0.634***	0.736***	0.752***	0.713***	0.690***	0.649***
<i>Age 35-39</i>	0.668***	0.761***	0.809***	0.760***	0.735***	0.720***
<i>Age 40-44</i>	0.755***	0.897***	0.913***	0.875***	0.866***	0.840***
<i>Age 45-49</i>	0.913***	1.044***	1.086***	1.023***	1.027***	0.985***
<i>Age 50-54</i>	1.089***	1.231***	1.277***	1.238***	1.233***	1.204***
<i>Age 55-59</i>	1.130***	1.294***	1.338***	1.299***	1.307***	1.284***
<i>Age 60-64</i>	0.509***	0.696***	0.784***	0.800***	0.814***	0.828***
<i>Age 65-70</i>	-0.709***	-0.505***	-0.408***	-0.384***	-0.411***	-0.381***
<i>Female</i>	0.128***	0.132***	0.146***	0.167***	0.158***	0.152***
<i>Married</i>	0.001	0.012	0.018*	0.024***	0.010	0.014
Fixed effects ^b	Y, P, F	Y, P, F	Y, P, F	Y, P, F	Y, P, F	Y, P, F
N	1,031,670	996,125	988,125	970,355	968,785	966,170
Adjusted R ²	0.425	0.431	0.436	0.443	0.438	0.433
						0.425

Notes:

The dependent variable is *RRSP NET* in all regressions.

*, **, and *** denote significant at the 10%, 5%, and 1% level, respectively.

a Variable definitions are listed in table 5, "Notes."

b Y = year; P = province; F = family size.

TABLE 9 Alternative Definitions of the RRSP and TFSA Variables

Independent variables ^a	Alternative definitions		
	<i>RRSP dummy</i>	<i>Sinb⁻¹(RRSP)</i>	<i>RRSP/Income</i>
<i>TFSA dummy</i> ^b	-0.518***		
<i>Sinb⁻¹(TFSA)</i> ^b		-0.423***	
<i>TFSA/Income</i> ^b			-0.047***
<i>RPP CTR.</i>	0.002***	-0.023***	-0.345***
<i>RRSP LMT.</i>	0.070***	0.173***	-0.007***
<i>TFSA LMT.</i>	-0.082***	-0.425***	-0.004***
<i>Income Q2</i>	0.650***	1.400***	0.005***
<i>Income Q3</i>	1.042***	2.543***	0.008***
<i>Income Q4</i>	1.329***	3.557***	0.016***
<i>Age 25-29</i>	0.169***	0.483***	0.014***
<i>Age 30-34</i>	0.152***	0.559***	0.017***
<i>Age 35-39</i>	0.059***	0.565***	0.020***
<i>Age 40-44</i>	0.019***	0.674***	0.025***
<i>Age 45-49</i>	0.086***	0.865***	0.032***
<i>Age 50-54</i>	0.168***	1.099***	0.038***
<i>Age 55-59</i>	0.122***	1.156***	0.040***
<i>Age 60-64</i>	-0.171***	0.489***	0.030***
<i>Age 65-70</i>	-0.675***	-0.880***	0.006***
<i>Female</i>	0.110***	0.148***	-0.001***
<i>Married</i>	0.058***	0.021***	0.001***
Fixed effects ^c	Y, P, F	Y, P, F	Y, P, F
N	9,776,540	7,240,230	7,240,230
Pseudo/adjusted R ²	0.166	0.430	0.098

Note: *, **, and *** denote significant at the 10%, 5%, and 1% level, respectively.

a Variable definitions are listed in table 5, “Notes.”

b *TFSA dummy* is an indicator variable that equals 1 if an individual contributes a positive net amount to TFSAs and equals 0 otherwise. *Sinb⁻¹(TFSA)* is the reverse hyperbolic sine transformation of TFSA net contributions. *TFSA/Income* is the percentage of TFSA net contributions in an individual’s annual total income. The RRSP dependent variable in each regression is transformed following the same rule of the corresponding TFSA variable.

c Y = year; P = province; F = family size.

Column 1 of table 10 includes a positive investment income dummy variable as well as its interaction with *TFSA NET* in the regression. The displacement effect remains significant after controlling for investment income (*InvestIncome* > 0). The positive coefficient of the interaction term suggests less displacement among individuals with positive investment income. Column 2 of table 10 repeats the same exercise using the positive change in investment income as a proxy for the “unexpected” investment income. The rationale is that people may not frequently change their saving plans but would be motivated to do so when their investment income and the associated taxes were higher than expected. We find a consistent displacement effect

TABLE 10 Controlling for Investment Income

Independent variables ^b	Investment income ^a	
	Positive investment income indicator (1)	Positive change indicator (2)
<i>TFSA NET</i>	-0.435***	-0.420***
<i>TFSA NET*InvestIncome</i> >0	0.041***	
<i>InvestIncome</i> >0	0.463***	
<i>TFSA NET*ΔInvestIncome</i> >0		0.016***
<i>ΔInvestIncome</i> >0		0.340***
<i>RPP CTR.</i>	-0.023***	-0.026***
<i>RRSP LMT.</i>	0.182***	0.159***
<i>TFSA LMT.</i>	-0.308***	-0.433***
<i>Income Q2</i>	1.261***	1.270***
<i>Income Q3</i>	2.301***	2.319***
<i>Income Q4</i>	3.210***	3.236***
<i>Age 25-29</i>	0.488***	0.560***
<i>Age 30-34</i>	0.616***	0.705***
<i>Age 35-39</i>	0.661***	0.755***
<i>Age 40-44</i>	0.757***	0.867***
<i>Age 45-49</i>	0.888***	1.012***
<i>Age 50-54</i>	1.056***	1.198***
<i>Age 55-59</i>	1.096***	1.259***
<i>Age 60-64</i>	0.552***	0.712***
<i>Age 65-70</i>	-0.669***	-0.542***
<i>Female</i>	0.137***	0.145***
<i>Married</i>	0.005	0.004
Fixed effects ^c	Y, P, F	Y, P, F
N	6,913,485	5,366,510
Adjusted R ²	0.446	0.427

Notes:

The dependent variable is *RRSP NET* in the regressions.

*, **, and *** denote significant at the 10%, 5%, and 1% level, respectively.

a *InvestIncome*>0 is an indicator variable that equals 1 if an individual reports positive investment income in a year and equals 0 otherwise. *ΔInvestIncome*>0 is an indicator variable that equals 1 if an individual reports positive change in investment income in a given year compared with the prior year and equals 0 otherwise. *InvestIncome* is the sum of taxable dividends (line 120 of the T1 tax form), taxable capital gains (line 127), net rental income (line 160), and interest and other investment income (line 121).

b Variable definitions are listed in table 5, "Notes."

c Y = year; P = province; F = family size.

among individuals with or without positive changes in investment income, although the effect is weaker in the former group.³⁷

Third, we test whether the displacement effect holds for gender, marital status, different family sizes, self-employment status, enrolment in an RPP, and geographic location.³⁸ The results are robust across all of the demographic groups. Excluding individuals who maximize their contributions to RRSPs and/or TFSAs also does not change our inference, suggesting that the explanation for the results is not that individuals who reach the contribution limit of one account use the other as an alternative.³⁹ Finally, we repeat the above analysis using individual fixed-effect regressions and find consistent results.

IMPLICATIONS AND CONCLUSIONS

In this study, we set out to determine empirically whether TFSAs displaced savings in RRSPs. Utilizing Statistics Canada's LAD, we investigate this issue using a large sample of Canadian taxfilers who made a net contribution to an RRSP and/or a TFSA from 2009 to 2015. We find strong evidence of a partial displacement effect. Once the TFSA was introduced, taxpayers had the opportunity to contribute to a TFSA as well as an RRSP. They chose to contribute to TFSAs without simultaneously maintaining or increasing their RRSP contributions. Our baseline results indicate that every 1 percent increase in a TFSA contribution reduces an RRSP contribution by approximately 0.4 percent.

Our displacement effect results are robust regardless of the following factors: RRSP contribution behaviour prior to 2009, income, age, gender, marital status, family size, province or territory of residence, self-employment status, whether taxfilers contributed to an employer pension or maximized their contributions to RRSPs and/or TFSAs, and whether taxfilers had passive (investment) income. Collectively, our results do not appear to be attributable to savings preferences of particular groups of taxfilers. Furthermore, the magnitude of the substitution effect increases every year over the sample period, during which the TFSA contribution limit was raised twice (in 2013 and 2015). We find that increases in TFSA limits had a limited effect on creating new savings. As unused TFSA contribution room

37 In untabulated results, we replace the investment income dummy variables with the continuous variables and find robust results. These findings further suggest that TFSAs are used by individuals with taxable investment income to shelter more tax-preferred savings.

38 In the LAD, a self-employed taxfiler is identified by the flag SEISWI. A "self-employed" taxfiler in the sample would have a non-zero amount (income or loss) from farming, from professional activities, from commissions as a salesperson, or from business activities. A "self-employed" taxpayer could also have employment income. The Northwest Territories, Yukon Territory, and Nunavut were grouped together for the purposes of this analysis.

39 We define maximum contributors to RRSPs (TFSAs) as individuals with less than \$500 of contribution room left after making the RRSP (TFSA) contribution in each year. Using \$100 or \$1,000 as the alternative threshold does not change the results.

accumulated over time, the percentage of taxfilers who maximized their TFSA contributions declined from 10 percent in 2009 to 2 percent in 2015.

Our results do not indicate complete displacement, since the magnitude of an increase in TFSA contributions is not matched by a corresponding decrease in RRSP contributions. Nevertheless, if the TFSA also replaces savings in taxable accounts or other forms of wealth accumulation, at least partially, the government may not achieve its goal of increasing total savings by offering the TFSA as a tax-preferred savings vehicle.⁴⁰

The stronger displacement effect that we find among young Canadians and the increasing displacement effect over time is concerning from a future tax revenue perspective: because the net annual amounts being contributed to RRSPs are declining, tax revenues will be lower than expected when funds held in RRSPs are withdrawn. This trend may suggest that Canadians are saving less for retirement, even if they are increasing their savings in TFSAs relative to RRSPs. Two factors may contribute to this saving behaviour: the TFSA can be used for short-term and intermediate saving needs, and it is not tax-prohibitive to make a TFSA withdrawal, since withdrawals are not taxable income.

Our research supports the aggregate findings of Messacar, who documented a Canada-wide declining trend of RRSP contributions against an upward trend in TFSA contributions.⁴¹ Our research also contributes to the wider tax and economics literature on tax-favoured savings plans, and specifically the interplay between tax-deferred savings plans and tax-prepaid savings plans, by documenting a partial displacement or crowd-out effect in the Canadian context. We encourage further research, perhaps using a behavioural economics focus, to better understand why this displacement could have occurred and to suggest policy changes that would better integrate the existing tax-preferred saving plans.⁴²

40 Kesselman, *supra* note 10, finds that the use of TFSAs is motivated by tax minimization because taxable assets have been shifted into TFSAs with a minimal increase in savings.

41 *Supra* note 11.

42 See, for instance, Card and Ransom, *supra* note 30, discussing framing effects, and Richard H. Thaler, "Anomalies: Saving, Fungibility, and Mental Accounts" (1990) 4:1 *Journal of Economic Perspectives* 193-205, for a discussion of mental accounting (<https://doi.org/10.1257/jep.4.1.193>).

Policy Forum: Structural Deficits and Long-Term Fiscal Consequences for the Federal Government—Some Observations and Advice

Francis Fong and Fred O’Riordan*

PRÉCIS

Cet article examine les variations dans la nature et la taille des déficits publics au Canada. Dans ce contexte, les auteurs font une distinction entre les « déficits conjoncturels » à court terme et les « déficits structurels » à long terme. Ils soutiennent qu’au-delà de la question de la viabilité budgétaire, les jugements concernant la pertinence des déficits fédéraux devraient tenir compte du niveau global d’endettement public et privé dans l’économie. Les auteurs présentent ensuite plusieurs propositions pour améliorer l’analyse du risque budgétaire et la gestion du déficit au fédéral. Ils concluent que bien qu’on puisse juger de la valeur d’un déficit donné selon que les dépenses excédentaires servent à financer la consommation courante ou à investir dans la croissance économique future, il est inapproprié d’avoir des déficits structurels prolongés sans plan de rétablissement de l’équilibre budgétaire avant 2040, comme le prévoit la politique budgétaire fédérale actuelle.

ABSTRACT

This article examines the changing nature and size of public deficits in Canada. In this context, the authors draw a distinction between short-term “cyclical deficits” and long-term “structural deficits.” They argue that beyond the issue of fiscal sustainability, judgments concerning the appropriateness of federal deficits should take into consideration the overall level of public and private debt in the economy. The authors then set out several proposals to improve fiscal risk analysis and deficit management at the federal level. They conclude that while the merits of a given deficit might be judged by whether the excess spending is used to fund current consumption or to invest in future economic growth, sustained structural deficits with no plan to return to balance before 2040, as projected under current federal fiscal policy, are inappropriate.

KEYWORDS: DEFICITS ■ FISCAL PLANNING ■ DEBT ■ RISK ■ RISK MANAGEMENT ■ BUDGETING

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INTRODUCTION

Opinions as to whether Canadians ought to worry about the federal government's current fiscal health can vary widely, even among experts. Some are concerned with persistent deficits and the size of the public debt, while others are more sanguine.¹ Additionally, views on intergenerational equity and political ideology relating to the size of government often enter into people's positions on debt burdens.² Even the government's underlying financial statements and accounting practices can cause arguments, muddy the waters, and create further confusion rather than clarity.³

In this article, we begin by considering the nature and size of public deficits in Canada and overall debt in the economy, both of which we feel are relevant to this debate and essential to a full understanding of the issues at play. We then consider risk factors that have a bearing on future economic growth and the need for fiscal prudence in order to have the capacity to deal with these risks as and when required.

We make two main arguments. The first is that total debt (public debt at all levels of government and private debt) should be used to assess the federal government's fiscal health. The second is that there should be a broader risk assessment process in budgeting to ensure that all cyclical and structural risks are properly taken into account. We conclude with some suggestions on how to manage these risks.

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- 1 In this context, we make a distinction between "structural deficits" and "cyclical deficits." Cyclical deficits are related to the business cycle and current economic conditions. They may occur when there is a recession or a downturn in the economy, which causes unemployment to rise and national income, output, and tax revenue to fall while government spending increases to stimulate aggregate demand through the operation of so-called automatic stabilizers. Cyclical deficits (as the term suggests) are temporary in duration. Structural deficits are persistent and are unrelated to the cyclical state of the economy. They relate to government spending that is at a higher level than can be sustained at current taxation rates and levels of revenue generation. They can occur even when the economy is operating at or near full employment.
 - 2 See, for example, Sean Speer, *Commentary: Deficits, Debt, and the Right Path for Fiscal Policy: A Framework for Smaller Government* (Ottawa: Macdonald-Laurier Institute, February 2019) (http://macdonaldlaurier.ca/files/pdf/MLICommentary_Feb2019_Speer_FWeb.pdf); and Olivier Blanchard, "Public Debt and Low Interest Rates," presidential address delivered at the 2019 American Economic Association (AEA), annual meeting, January 4, 2019 (www.aeaweb.org/aea/2019conference/program/pdf/14020_paper_etZgfbDr.pdf).
 - 3 For a good discussion of accounting practices and components of public debt, see Dominique Lapointe, "Untangling Public Debt in Canada," *IFSD*, April 23, 2018 (www.ifsd.ca/en/blog/last-page-blog/untangling-public-debt).

FEDERAL DEBT AND DEFICITS

According to the Department of Finance's fiscal reference tables, the gross federal debt has increased by more than 70 percent in just 10 years, from \$581 billion at the end of the 2007-8 fiscal year to more than \$1 trillion as of the 2017-18 fiscal year.⁴ Meanwhile, Finance's own projections show that the government expects to run persistent deficits until around 2040, given presumed rates of both revenue and expenditure growth, suggesting that it will continue to add more debt load for the foreseeable future.⁵

These statistics paint a negative picture of long-term fiscal health in absolute terms. However, most observers point out that the Canadian economy is quite strong and consider the level of debt in relation to it—that is, in relative terms. Viewed from that perspective, the gross ratio of debt to gross domestic product (GDP) ratio hit 89.7 percent in 2017—down from 91.1 percent in 2016, but up by nearly 25 percentage points from 66.8 percent in 2007. The federal government's own preferred metric of net debt (total liabilities minus financial assets) to GDP sat at just 27.8 percent as of 2017 on a national accounts basis—a small fraction of the gross debt-to-GDP ratio and by far the lowest among our international peers.⁶

The closest competitor in the Group of Seven, for example, is Germany, whose own net debt sits at 45.1 percent of GDP, while the United States is at 82.3 percent and Japan is at a whopping 153.0 percent.⁷ In projections extending out to 2040, the Department of Finance bravely forecasts that the net-debt-to-GDP ratio will approach zero over its long-term forecast horizon.⁸

As for recent federal deficits, while persistent, they also pale in comparison with those of most of our peers, particularly the United States. The Congressional Budget Office recently projected deficits over the next 10 years that are a full order of magnitude larger than Canada's on a percentage of GDP basis.⁹

Viewed holistically then, these statistics pose a challenge for ordinary Canadians to judge. When there is disagreement even among experts over whether they point to a problem, how are non-experts expected to judge them?

4 Canada, Department of Finance, "Fiscal Reference Tables" (published annually) (www.fin.gc.ca/frt-trf/index-eng.asp).

5 Projections referenced were completed by the Department of Finance prior to the tabling of the 2019 budget. See Canada, Department of Finance, *Update of Long-Term Economic and Fiscal Projections 2018* (Ottawa: Department of Finance, 2018) (www.fin.gc.ca/pub/ltefp-peblt/2018/report-rapport-eng.asp).

6 Although this net-debt-to-GDP ratio, or so-called fiscal anchor, is a valid risk indicator, it should not be relied on as the sole measure to chart risk. Its inherent flaw is that it changes only slowly in reaction to economic circumstances that can change quickly.

7 Authors' calculations. See Department of Finance, "Fiscal Reference Tables," *supra* note 4.

8 See the Finance 2018 *Update*, *supra* note 5.

9 United States, Congressional Budget Office, "The Budget and Economic Outlook: 2019 to 2029" (www.cbo.gov/publication/54918).

THE CASE FOR CONSIDERING ECONOMY-WIDE DEBT

Further complicating things, federal debt is but a single component of a much larger composite that we argue needs to be considered. As shown in figure 1, Canada has the highest percentage of subnational government spending in relation to total government spending among 34 member countries of the Organisation for Economic Co-operation and Development (OECD). In 2014, Canada's provincial, territorial, and municipal governments collectively accounted for 77.6 percent of total government spending. That compares with an OECD average of just 31.9 percent and an average of 47.9 percent in the United States.

This variation is largely driven by differences in how constitutional responsibilities, as well as related program spending, are allocated between national and subnational governments. Canada is a highly decentralized federation. The operation and direct funding of major programs such as education and health care are the primary jurisdiction of the provinces. The federal government provides fiscal support for some programs through the Canada health and social transfer and, to a lesser degree, equalization payments. Compare this with the United States, where the federal government is directly responsible for programs such as Medicare and Medicaid, and where higher education institutions are jointly funded by both federal and state governments.

One common denominator in all of these countries, including Canada, is that it is taxpayers who ultimately bear the responsibility for government debt and to whom it is largely irrelevant how that debt is distributed across various levels of government. For this reason, total government debt should be taken into consideration by the federal government even for its own fiscal planning purposes.

According to Statistics Canada data, shown in figure 2, the federal government recorded a \$343 billion increase in gross liabilities between 2001 and 2017 on a national accounts basis. However, adding provincial gross liabilities more than triples that increase to \$1.1 trillion. Meanwhile, adding provincial financial assets and debt raises the net-debt-to-GDP ratio from 31.3 percent to 61.3 percent, according to the Department of Finance's fiscal reference tables (figure 3).¹⁰

In other words, an increasing share of the fiscal burden faced by taxpayers is emanating from the provinces—a trend that is unlikely to reverse in the foreseeable future. Like most countries, Canada faces rising health-care costs owing to an aging population and a growing demand for skills training from a labour force that is feeling the impact of increasing automation, technological change, and global

10 The net-debt-to-GDP figures quoted here differ slightly from those quoted above owing to differing accounting conventions. The Department of Finance uses a public accounts basis whereas, in order to be comparable with other jurisdictions, Statistics Canada data indicating a net-debt-to-GDP ratio of 27.8 percent are aggregated on a national accounts basis.

FIGURE 1 Subnational Government Spending as a Percentage of Total Government Spending, Selected OECD Countries, 2014

Source: Organisation for Economic Co-operation and Development, *OECD Regions at a Glance 2016* (Paris: OECD, 2016) (https://doi.org/10.1787/reg_glance-2016-en).

FIGURE 2 Federal and Provincial Gross Liabilities, 2001-2017

Note: Calculated on a national accounts basis.

Source: Canada, Department of Finance, “Fiscal Reference Tables October 2018” (www.fin.gc.ca/ftr-trf/2018/ftr-trf-18-eng.asp).

FIGURE 3 Combined Federal and Provincial Net-Debt-to-GDP Ratio, 1990-2017

GDP = gross domestic product.

Note: Calculated on a national accounts basis.

Source: Canada, Department of Finance, “Fiscal Reference Tables October 2018” (www.fin.gc.ca/frt-trf/2018/frt-trf-18-eng.asp).

competition. To accommodate these changes, there is a role for both federal and provincial governments; consequently, their aggregate fiscal health matters.¹¹

One also needs to consider that in addition to the liabilities recorded on the balance sheet, the federal government has significant contingent liabilities related to its Crown corporations. Through its explicit backing of the mortgage insurance market, it is directly exposed to a sizable portion of private-sector debt. The federal government guarantees 100 percent of the outstanding mortgages insured by the Canada Mortgage and Housing Corporation (CMHC) and 90 percent of mortgages insured by Canada’s two private-sector insurers, Genworth Canada and Canada Guaranty. Both CMHC and Genworth report publicly, and filings show a combined insurance-in-force of \$961 billion, with a total net exposure to the federal government to the tune of \$910 billion.¹² Canada Guaranty is 100 percent privately

11 According to a study by the Parliamentary Budget Officer, current fiscal policy is sustainable at the federal level, but it is not sustainable for the subnational government sector as a whole: Office of the Parliamentary Budget Officer, *Fiscal Sustainability Report 2018* (Ottawa: PBO, September 27, 2018), at 25 (www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2018/FSR%20Sept%202018/FSR_2018_25SEP2018_EN_2.pdf). Fiscal sustainability may be defined as the state where government debt does not rise over time as a share of the economy.

12 Genworth MI Canada, “Third Quarter 2018 Earnings Report—Financial Supplement” (<http://investor.genworthmicanada.ca/English/financials-and-filings/quarterly-reports-archive/>).

owned and therefore does not report insurance-in-force. But even a relatively conservative guess puts the federal government's total exposure to mortgage debt at well above \$1 trillion. This also does not include the \$118.3 billion in mortgage-backed securities that CMHC also explicitly guarantees.

According to the International Monetary Fund's global debt database,¹³ total economy-wide debt has grown by 113.1 percentage points of GDP since 1990, facilitated largely by a structural decline in interest rates since the 1980s. Of that increase, 46.6 percentage points originate from the household sector, roughly three-quarters of which consists of the mortgage debt referenced above. This concentration of mortgage debt has obviously given rise to the elevated level of home prices we see today in Canada's largest metropolitan centres. Furthermore, despite households getting the lion's share of the attention in the media, a larger share of the increase in economy-wide debt actually comes from the non-financial business sector, which added 51.3 percentage points to the aggregate. By comparison, meanwhile, all levels of government combined added just 15.2 percentage points to the increase (figure 4).

This reinforces the concern raised earlier: how much financial capacity do taxpayers have to bail out the government if necessary when their debt burden is even higher in relative terms? This household indebtedness is reflected in a significant increase and upward trend over time in the Canadian household debt-to-income ratio (figure 5).

Regardless of how one feels about the sustainability of *government* debt in isolation, a greater concern is the risk posed by the sum of public and private debt in the aggregate. Should any kind of economic shock, internal or external, push the economy into recession, a sharp increase in the unemployment rate or in interest rates could result in the debt picture unravelling. A disorderly unwinding could then be characterized by a mounting of defaults and loan losses at financial institutions. A tightening in credit conditions would likely follow, further exacerbating defaults and loan losses, thus risking a snowball effect similar to the 2008-9 financial crisis experienced in the United States.

Implications for the federal government are twofold. Should the shock be significant enough to drive a sharp correction in housing imbalances through widespread defaults among mortgagors, losses could overwhelm the capital buffers of the three mortgage insurers, crystallizing the mortgage exposure discussed above. More likely, however, is the scenario in which loan losses do not necessarily overwhelm private-sector capital buffers, but rather magnify the economic decline caused by whatever shock happens to hit the economy. The deeper the recession,

default.aspx); and Canada Mortgage and Housing Corporation, "Third Quarter 2018 Financial Results—Mortgage Loan Insurance Business Supplement (www.cmhc-schl.gc.ca/en/about-cmhc/corporate-reporting/quarterly-financial-reports).

13 International Monetary Fund, "Global Debt Database" (www.imf.org/external/datamapper/datasets/GDD).

FIGURE 4 Canadian Economy-Wide Debt as a Percentage of GDP, by Sector, 1990-2017

GDP = gross domestic product.

Source: International Monetary Fund, “Global Debt Database” (www.imf.org/external/datamapper/datasets/GDD).

FIGURE 5 Canadian Household Debt-to-Income Ratio, 1990-2018

Source: Statistics Canada (www.statcan.gc.ca/eng/start).

the more necessary it becomes for the federal government to step in with fiscal levers to offset the decline in domestic demand—a task that would obviously require sufficient fiscal capacity to achieve that result.

PROPOSALS TO IMPROVE FISCAL RISK ANALYSIS AND DEFICIT MANAGEMENT

In the context of the annual budget process, by convention since 1994 the federal government has consulted private-sector economists and relied on the average of private-sector economic projections to introduce an element of objectivity and independence into its own economic and fiscal outlooks. This is a good practice that we fully support.

The government overlays its own risk assessment, including both upside and downside risks. In the 2018 budget, the stated upside risks included possible stronger-than-expected growth in the global economy; household spending and business investment that “could continue to surprise”; and oil prices that might be “higher than expected in the medium term.”¹⁴ The downside risks included “uncertainty regarding the outcome of North American Free Trade Agreement negotiations”; financial conditions that “could tighten faster than anticipated . . . [leading to] higher interest rates”; and “high [Canadian] household debt.”¹⁵

The government revisits this risk assessment in its annual fall economic statement. In the most recent statement, issued in November 2018, the government noted that on the upside, household spending and business investment in Canada “could be stronger than expected.”¹⁶ On the downside,

for the global economy, there is a risk that the U.S. economy could overheat in light of significant fiscal stimulus at a time when the economy is already performing above capacity. This could induce the Federal Reserve to increase interest rates faster than markets expect, potentially stifling economic activity in the U.S., with negative implications for an open, trading economy like Canada.¹⁷

In addition,

the shift toward greater economic protectionism . . . could ramp up further . . . [creating] an additional headwind to global trade flows and investment, which could spill over into Canada.¹⁸

14 Canada, Department of Finance, 2018 Budget, Budget Plan, February 27, 2018, at 301 (www.budget.gc.ca/2018/docs/plan/budget-2018-en.pdf).

15 Ibid.

16 See Canada, Department of Finance, Economic Statement, November 21, 2018, at 15 (www.budget.gc.ca/fes-eea/2018/docs/statement-enonce/fes-eea-2018-eng.pdf).

17 Ibid.

18 Ibid., at 16.

In retrospect, and admittedly with the benefit of hindsight, not only do the stated downside risks in these two exercises appear incomplete, but the upside risks appear to be overstated while the downside risks appear to be understated.

Among the risks directly or indirectly affecting the Canadian economy that are missing or understated are the following:

- trade tensions between the United States and China;
- low prices for Western Canadian Select crude oil and bitumen, leading to production restrictions and lost export revenues and royalties;
- US tariffs of 25 percent on Canadian steel imports and 10 percent on aluminum imports announced on May 31, 2018 and retaliatory surtax countermeasures imposed by Canada on imports of US steel, aluminum, and other products on July 1, 2018;
- a serious deterioration in Canada-China diplomatic and trade relations;
- a risk that the ratified trade agreement between the United States, Mexico, and Canada will not be approved by the US Congress;
- uncertainty concerning Brexit and its impact on Canada's trade agreement with the European Union and on trade with the United Kingdom;
- continued chronic weakness in Canadian non-residential fixed business investment;
- interprovincial trade barriers; and
- uncertainty around regulatory rules and indigenous rights governing large resource development projects.

Collectively, these risks represent a clear and present danger to the Canadian economy's downstream health prospects.

We feel that the government should provide a more comprehensive analysis of risk factors in the budget process. In so doing, it could perhaps cede some control over this assessment to private-sector economists, as it does in formulating its economic and fiscal outlook on the basis of their economic projections. We are nearing the end of a long period of economic expansion. To prepare for that inevitable moment and its consequences, the federal government needs to exercise fiscal prudence and probity now in order to preserve as much fiscal capacity as possible for use at that time.

We offer the following advice on good deficit management in order to avoid, or at least minimize, the magnitude and duration of unnecessary structural deficits.

There are obviously two dimensions of fiscal policy—the spending side and the taxing side—and both require discipline and proper management. At the operational level of government, we are strong advocates for adequately resourced and effective program evaluation functions in those departments and agencies that administer large expenditure programs, and for appropriate policy guidance and oversight in central agencies, including Finance and the Treasury Board.

This advice does not just apply to direct spending programs; it applies equally to so-called tax expenditure programs. Both types of programs should be periodically

evaluated to ensure that they are meeting their stated objectives at reasonable cost. If they are not, they should be revised or cancelled. Canada currently has almost 200 individual tax expenditure measures totalling hundreds of billions of dollars, as reported annually by the Department of Finance.¹⁹ They represent forgone tax revenues that reduce the size of the tax base, and they cover a wide range of credits and deductions, from the basic personal amount to income-sheltering savings plans, deductions for union dues, and volunteer firefighter tax credits. All have, at their root, some laudable social or economic goal, but in the aggregate they add considerable complexity to Canada's tax system.

The evaluations of these tax expenditure programs would be best done in the context of a broader, more comprehensive policy review of the entire Canadian tax system. Such a review is long overdue for a number of reasons (a discussion of which is outside the ambit of this article).²⁰ We feel that, if the government were to commission an independent review done by tax professionals, and implement its recommendations, the result could be a system that would be revenue-neutral in impact yet more efficient, internationally competitive, certain in terms of revenue generation, and simpler and cheaper in terms of compliance and administration costs.

The federal government should also consider establishing and funding an independent, arm's-length economic advisory council to provide non-partisan advice on fiscal policy. This advisory body should be authorized to research and publish reports on selected issues of its own choosing as well as topics that the government might wish to refer to it. The council would not have any direct authority over fiscal policy, but would draw moral authority and suasion from its publications in much the same way as the Parliamentary Budget Officer does with its reports and published statements.²¹

19 See Department of Finance, *Report on Federal Tax Expenditures: Concepts, Estimates and Evaluations* (Ottawa: Department of Finance, 2018) (www.fin.gc.ca/taxexp-depfisc/2018/taxexp-depfisc18-eng.pdf).

20 For a summary, see Fred O'Riordan, "Policy Forum: Why Canada Needs a Comprehensive Tax Review" (2018) 66:2 *Canadian Tax Journal* 351-62. See also Trevin Stratton, *50 Years of Cutting and Pasting: Modernizing Canada's Tax System* (Ottawa: Canadian Chamber of Commerce, February 2019) (www.chamber.ca/publications/reports/); and Chartered Professional Accountants of Canada, *Canada's Tax System: What's So Wrong and Why It Matters* (Toronto: CPA Canada, December 2018) (www.cpacanada.ca/en/the-cpa-profession/about-cpa-canada/key-activities/public-policy-government-relations/policy-advocacy/cpa-canada-tax-review-initiative/canadas-tax-system).

21 Examples of such advisory councils include the Economic Council of Canada, a federal Crown corporation created by an act of Parliament in 1963 but disbanded in 1983 for largely partisan political reasons; and the Council of Economic Advisors in the United States, an agency within the Executive Office of the President charged with offering "objective economic advice on the formulation of both domestic and international economic policy." See United States, the White House, "Council of Economic Advisers" (www.whitehouse.gov/cea/).

Some observers might go a step further and recommend that such a council have at least some direct authority over fiscal policy—specifically, policy decisions on deficit spending (that is, not how public funds are spent, but rather how and when they are raised).²² However, most observers, including us, would see this as a step too far, since it would undercut the proper authority of elected governments to exercise their discretion over fiscal policy.²³

Nor do we feel that there should be strict limitations against budgetary deficits in general. We do not endorse the imposition of rigid legislative restrictions on deficit financing, as was attempted by the law that was passed in the final year of the Harper government but quickly unwound in the first year of the Trudeau government.²⁴ The short life of that legislation nicely demonstrates that judgments about appropriate levels of deficits and debt are often strongly influenced by political ideology rather than neutral and objective economic analysis.²⁵

CONCLUSIONS

When does deficit financing make sense? There is no golden rule; however, there is a strong consensus that cyclical deficits are appropriate when there is a sufficiently serious downturn in the economy that pump priming by the government is needed to stimulate aggregate demand and restore full employment, but deficits should be avoided in good times when this assistance is no longer needed.

22 Decisions over deficit financing would depend solely on current and forecast economic conditions and circumstances. Downturns and external shocks would trigger a loosening of fiscal policy, whereas fuller employment and stronger aggregate demand in the macro economy would trigger a tightening. Fiscal policy levers would become more closely aligned in support of other automatic stabilizers in the economy.

23 However, it is interesting to note that when it comes to monetary policy, including decisions on interest rates and the money supply, Canadians have no apparent concerns regarding the Bank of Canada's independent authority over day-to-day operations and decision making, in which the government can intervene only exceptionally through written directives. Similarly, Canada's public debt is managed jointly by the Department of Finance and the Bank of Canada. See Aimeric Atsin, "Federal Deficit and Public Debt in Canada: Are We Aware of the Implications for the Medium-Term Outlook?" *IFSD*, February 26, 2019 (<https://ifsd.ca/en/blog/last-page-blog/deficit-public-debt>). See also Joseph Heath, "Policy Forum: From Independent Tax Commission to Independent Tax Authority" (2018) 66:2 *Canadian Tax Journal* 387-99, arguing the case for an independent tax authority.

24 The Federal Balanced Budget Act, SC 2015, c. 36, s. 41, received royal assent on June 23, 2015 and was repealed on June 22, 2016 by SC 2016, c. 7, s. 79. The implementation of this legislation was proposed in the Conservative government's final budget in 2015, and its repeal was proposed in the Liberal government's first budget in 2016. See Canada, Department of Finance, 2015 Budget, Budget Plan, April 21, 2015, at 342-43, and 2016 Budget, Budget Plan, March 22, 2016, at 53.

25 There is some empirical evidence that certain balanced budget and debt rules implemented at the provincial level have been effective. See Stephen Tapp, "The Use and Effectiveness of Fiscal Rules in Canadian Provinces" (2013) 39:1 *Canadian Public Policy* 45-70 (www.utpjournals.press/doi/abs/10.3138/CP.39.1.45).

Can structural deficits ever be justified when the economy is operating at or near full capacity? A fair answer is that it depends on what the net spending in excess of revenues is used for. In terms of an intergenerational equity criterion, for example, deficit financing is far easier to justify for investments that directly contribute to future economic growth than for current consumption.

Even that seemingly simple distinction can lead to honest disagreements about what constitutes investment versus current consumption. Consider the Canada child benefit program—an indexed federal expenditure of well over \$20 billion annually and rising.²⁶ On the face of it, this is a social program that falls into the latter camp. But a strong case could be made that it provides an opportunity for stay-at-home child-care providers (predominantly female) to enter the labour force, thereby increasing the female participation rate in the market economy and increasing national income. So the program could legitimately be seen as an investment. The same argument could be made for a national day-care program, and similar thinking was behind the federal government’s decision to introduce a new employment insurance parental sharing benefit in the 2018 budget, with additional weeks of “use it or lose it” benefits when parents agree to share parental leave.²⁷

One thing is clear in our minds: a fiscal policy that anticipates chronic structural deficits, with no plan to return to balance before 2040 (as is the case currently), is inappropriate. The federal government ran a deficit every fiscal year from 1969-70 to 1996-97.²⁸ The consequences were serious in terms of the accumulated debt-servicing costs and the belt-tightening steps needed to reduce them. Although real interest rates are much lower now, so is anticipated growth in real GDP. It does not seem fiscally responsible or prudent to risk going down that same path again.

26 See 2016 Budget, *supra* note 24, at 57-64.

27 See 2018 Budget, *supra* note 14, at 45-49.

28 See Canada, Department of Finance, “Fiscal Reference Tables October 2018,” at 9, table 1 (www.fin.gc.ca/frt-trf/2018/frt-trf-18-eng.pdf).

FINANCES OF THE NATION

TAXATION OF TOP INCOMES IN CANADA—RECENT DEVELOPMENTS IN RATES AND REDISTRIBUTION

Michael Smart*

The “Finances of the Nation” feature presents annual surveys of provincial and territorial budgets and data-driven analyses of taxation and public expenditures in Canada. This series is a successor to the annual monograph titled Finances of the Nation (and, previously, The National Finances), published from 1954 to 2013 by the Canadian Tax Foundation.

The key data sets prepared for the Finances of the Nation project are available for download at <https://financesofthenation.ca>.

In this article, Michael Smart presents evidence on the evolution of top tax rates and tax progressivity since 1982. While top tax rates have recently increased substantially, the impact of these changes on redistribution through the tax system has been rather small to date. Smart suggests some possible explanations for this finding.

KEYWORDS: TAX RATES ■ TAX REVENUES ■ REDISTRIBUTION ■ EQUALITY

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INTRODUCTION

“Practical men,” wrote Keynes, “who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist.”¹ Well, the world moves faster now. In the age of Twitter, the economist no longer needs to be “defunct” to influence policy. Far from it.

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1 John Maynard Keynes, *The General Theory of Employment, Interest and Money* (Cambridge, UK: Cambridge University Press, 1936), at 383.

Consider top income taxation. In the early 2000s, some influential economists began to document the remarkable rise in the income share of the top 1 percent in some western countries, and to analyze its implications for tax policy.² By 2008, “We are the 99 percent” became a rallying cry for the Occupy movement, and governments around the world began to respond with new taxes on the income and wealth of the rich. In Canada, seven provinces and the federal government have introduced new top brackets since 2010, with higher marginal tax rates and in many cases substantially higher income thresholds than were previously the norm.

In this brief article, I present evidence on tax rates and the degree of tax progressivity in the Canadian system since 1982. While new top brackets and new higher top marginal rates are headline-grabbing, their impact on redistribution through the tax system has been rather small to date. As I show below, the share of income taxes paid by the top 1 percent of taxpayers has risen substantially over the past 30 years. But this reflects rising inequality more than the effects of taxes per se. According to the data, the average effective tax rate applying to top incomes remained unchanged in the years following the recent increases in provincial tax rates—before rising slightly with the increase in the top federal rate in 2016. Measured by a standard index used in the economic literature, the overall progressivity of the Canadian income tax system also remained essentially unchanged throughout this period.

Thus, the impact of recent tax changes on redistribution has been small. I suggest a few candidate explanations for this finding: the new bracket thresholds are too high; the rate increases are too small; or the opportunities for high-income tax avoidance are too great. In all, top tax rates would have a greater impact on progressivity if they applied at lower thresholds than currently—say, at incomes around \$125,000. I conclude with a brief discussion of future opportunities for reforming the taxation of top incomes.

TOP-BRACKET TAXATION OVER TIME

Figure 1 shows the evolution of top marginal tax rates among provinces since 1988.³ The pattern is clear. Top rates in Canada had fallen with the tax reforms of 1981 and 1987, but then started to rise again in the 1990s, largely because of increases in federal surtaxes during an era of deficit fighting under the Mulroney and Chrétien governments, including a high-income surtax that applied to the top 2 percent of taxpayers. The early 1990s also saw increases in some provincial tax rates. By the end of the decade, the tide had turned again toward tax flattening. Federal surtaxes were abolished in 1999 and 2000. As well, the 2000 tax year saw the introduction of the “tax on income” system, which allowed provincial governments under tax

2 For example, Thomas Piketty and Emmanuel Saez, “Income Inequality in the United States, 1913–1998” (2003) 118:1 *Quarterly Journal of Economics* 1–41 (<https://doi.org/10.1162/00335530360535135>).

3 Figure 1 is based on data from Kevin Milligan, “Canadian Tax and Credit Simulator: CTaCS,” version 2019-1 (<http://faculty.arts.ubc.ca/kmilligan/ctacs/>).

FIGURE 1 Combined Federal-Provincial Top Marginal Tax Rates, 1987-2019

collection agreements to levy taxes as a function of taxable income rather than as a percentage of basic federal tax. This new provincial flexibility led to a major tax-flattening reform in Alberta in 2000, followed by less dramatic reductions in top rates in other provinces. With these changes, the weighted average top marginal rate fell to 44.8 percent in 2001, compared to 51.3 percent in 1998.

The latest episode of top-rate increases also originated at the provincial level, with a new top-bracket rate instituted by Nova Scotia in 2010, followed by Ontario in 2012 and other provinces subsequently, and with the new federal top bracket first applying for the 2016 tax year. The current top marginal rates and top-bracket thresholds are reported in table 1. Since 2009, new top brackets have been created in seven provinces. The average of top rates, weighted by provincial shares of top-income taxpayers, is now 19.3 percent, up from 16.2 percent in 2009. Coupled with the 4 percentage point rise in the federal top rate in 2016, this represented a substantial rise in combined top tax rates. As a result of these changes, the combined federal-provincial average top marginal tax rate has increased by 7 percentage points since 2009. More relevant for taxpayers' decisions is probably the take-home rate (1 minus the marginal tax rate), which has decreased by 12.5 percent on average since 2009.

Although top rates have increased, there have also been marked increases in the threshold income at which these rates apply—which, as we will see, tend to blunt the impact of the rate increases. The weighted average of provincial top-bracket thresholds is now over \$210,000, compared to just over \$125,000 in 2009. The federal top-bracket threshold has increased commensurately.

TABLE 1 Top Marginal Tax Rates and Bracket Thresholds, 2019

Province	Tax rate (%)	Bracket threshold (\$)	Change in tax rate since 2009 (%)
Newfoundland and Labrador	18.3	175,100	2.8
Prince Edward Island	18.4	101,200	0.0
Nova Scotia	21.0	150,100	1.8
New Brunswick	20.3	157,900	3.3
Quebec	25.7	107,700	1.7
Ontario	20.5	224,500	3.1
Manitoba	17.4	70,700	0.0
Saskatchewan	14.5	129,300	−0.5
Alberta	15.0	315,000	5.0
British Columbia	16.8	154,000	2.1
Federal	33.0	210,500	4.0

Note: Data are rounded to nearest \$100.

Just how significant are those increases, given that prices and nominal incomes are also increasing over time? Figure 2 shows the evolution of the federal top-bracket threshold from 1982 to 2016 (the latest year for which taxable income data are available).⁴ To render the nominal thresholds comparable over time, I have deflated them to 2016 dollars using an index of the growth in the 99th percentile of taxpayer incomes in each year up to 2016. Thus, in 2016, the federal top bracket started at \$200,000, which was about 81 percent of the 99th percentile income, whereas in 1982 the top bracket started at \$58,100, which was also about 81 percent of the then prevailing 99th percentile. In this sense, the top bracket meant roughly the same thing to taxpayers in 1981 as it does today. However, figure 2 shows that the top bracket was lower in relative terms in the intervening period. We can distinguish three different reasons for the fall in the top threshold over the period:

1. After 1985, tax brackets were no longer fully indexed to inflation. As nominal incomes rose with rising inflation, many more taxpayers were brought into the top bracket. In effect, this was a “stealth” tax increase on middle-bracket taxpayers, which increased real tax revenues without any legislated change in rates—and which had substantial, if perhaps unintended, consequences for tax progressivity.
2. In 1987, a major tax-flattening reform was enacted, replacing 10 brackets with just 3 and reducing the top threshold substantially.
3. In 2000, the top threshold was increased by legislation, and full indexation was restored. This brought the threshold back to around 60 percent of the 99th percentile income (\$150,000 in terms of the 2016 income distribution), where it roughly remained until the 2016 changes.

4 Top income shares appear anomalous for 1994 and so have been omitted from the data used in this article.

FIGURE 2 Federal Top-Bracket Threshold, 1982-2016, Real 2016 Dollars

IMPLICATIONS FOR TAX PROGRESSIVITY

Marginal tax rates are important for economists studying the effects of taxation on the economy, but they are comparatively unimportant for taxpayers' welfare, because they apply only to income reported above the relevant bracket threshold. What really matters to taxpayers is their total tax burden, not the marginal tax rate paid on the last dollar of taxable income reported. In turn, what really matters to economists assessing redistribution through the tax system is how total tax burdens vary with taxpayers' individual incomes.

To study redistribution, consider instead the average tax rate—that is, an individual's total tax burden expressed as a percentage of his or her total income. Economists generally define a tax system as progressive if the average tax rate increases with income, and regressive if the opposite is true. (If the average tax rate does not vary with income, the tax system is proportional.) While this is merely a definition, and value-free in principle, it clearly embodies the ethical notion that individuals' ability to pay taxes increases with increasing their income. This conclusion might, for example, be derived from the utilitarian perspective on social welfare, under the restriction that the marginal social benefit of individual income decreases as income rises.

Progressivity is fundamentally a local concept, in that average tax rates might be increasing at some income levels and decreasing at others. Actual tax systems may be more or less progressive—or even regressive—over different ranges of incomes and for different types of taxpayers. This has led to a search of aggregate measures of the degree of redistribution of taxes over the full range of incomes, to which I turn below.

Table 2 shows the average effective tax rate paid across the 2016 distribution of income, aggregated from individual tax returns and available through Statistics

TABLE 2 Effective Tax Rates and Concentration Curves for Income and Taxes, 2016

Income group	Average income	Effective tax rate	Cumulative share of income	Cumulative share of taxes
	<i>dollars</i>		<i>percent</i>	
P0-10	3,631	0.1	0.7	0.0
P10-20	12,351	0.2	3.3	0.0
P20-30	18,634	1.0	7.1	0.3
P30-40	24,267	3.4	12.0	1.3
P40-50	31,625	7.0	18.5	4.1
P50-60	39,659	9.9	26.6	9.0
P60-70	48,673	12.4	36.5	16.6
P70-80	61,398	15.1	49.0	28.3
P80-90	80,965	18.0	65.5	46.5
P90-99	130,957	22.6	89.6	79.9
P99-99.9	376,595	30.7	96.5	92.9
P99.9-99.99	1,293,950	32.6	98.9	97.7
P99.99+	5,561,356	32.9	100.0	100.0

Sources: Statistics Canada, “Federal and Provincial Individual Effective Tax Rates,” table 11-10-0054, and “High Income Tax Filers in Canada,” table 11-10-0055, and author’s calculations.

Canada.⁵ This measures total federal and provincial income taxes as a share of income, but excludes payroll taxes.⁶ The available data are for vingtiles (five percentile bins) of income, plus information on the top 1 percent. To get more detail on the distribution of taxes paid at the top of the distribution, I augment the data with information from Statistics Canada’s High Income Tax Filers database,⁷ which reports income and tax shares for the top 1, 0.1, and 0.01 percent of the distribution. While the measurement concepts in the two data sources are somewhat different, the totals appear to be very close where the data overlap. Merging the two data sources, it is possible to show the distribution of income and taxes in four groups of progressively higher incomes and smaller size within the top decile.

5 Average effective tax rate is defined as total income tax payments divided by total income in each vingtile (5 percent group) of the income distribution. The data are from Statistics Canada, “Federal and Provincial Individual Effective Tax Rates,” table 11-10-0054, which is in turn derived from microdata in the Longitudinal Administrative Databank (LAD), a confidential microdata sample of individual tax returns maintained at Statistics Canada. The vingtile data are here aggregated to deciles in table 2 for concision. In constructing indexes of progressivity below, I use vingtiles, not deciles.

6 Payroll taxes might be regarded as less progressive than income taxes.

7 Statistics Canada, “High Income Tax Filers in Canada,” table 11-10-0055. The definition of income in this data source is “total income with capital gains,” which appears to be close to “modified total income” from the vingtile-level data. Note that this income measure exceeds line 236, “net income” on the T1 return largely by the inclusion of 100 percent of realized capital gains and of certain tax-exempt income sources.

By and large, the Canadian personal income tax system is progressive. As shown in table 2, average income tax rates increase with income across deciles. Taxfilers⁸ in the bottom 30 percent of the distribution pay average tax rates of less than 1 percent, reflecting the impact of the income exemption through the personal amount and of non-refundable tax credits that bring basic federal tax to zero in most cases.⁹ Average tax rates rise through middle incomes, reaching 24 percent on average in the top decile and 31 percent on average in the top 1 percent. There is little average rate progression within the top 1 percent, since the top-bracket thresholds in most provinces and federally remain below that income level.

Table 2 also shows the cumulative share of taxes paid and income received by each income group, which gives a broader measure of progressivity. Thus, for example, the bottom 99 percent of taxfilers received 89.6 percent of total income in 2014, but paid only 79.9 percent of income taxes. Equivalently, the top 1 percent paid 20.1 percent of total income taxes while receiving 10.4 percent of total income.

When depicted graphically over all quantiles of income, these cumulative shares are known as the concentration curves for income and taxes, which are shown in figure 3 for the 2016 data. The concentration curve for income (the solid line in figure 3) is better known as the Lorenz curve, a standard depiction of income inequality. If all individual incomes were equal, the Lorenz curve would be the 45-degree line of perfect equality. The Gini coefficient, a standard index of income inequality, is measured as the area between the Lorenz curve and the 45-degree line (multiplied by 2, so that it takes on values between 0 and 1). A Gini coefficient of 0 indicates complete equality, whereas a Gini of 1 would indicate a condition of extreme inequality, in which all income accrued to the very richest individual.

In figure 3, the tax concentration curve (the dashed line) lies everywhere below the income concentration curve, because lower-income taxfilers pay a lower-than-proportional share of taxes. The area between the income and tax concentration curves can therefore be regarded as a numerical measure of the degree of tax progressivity. This measure (again multiplied by 2, so that values lie between 0 and 1 for a progressive tax) is known as the Kakwani index of tax progressivity.¹⁰ (The Kakwani index can also be thought of as the difference in areas above the two concentration curves, so that it can also be equivalently measured as the difference

8 When speaking of the full distribution of tax payments, the term “taxfiler” is preferred to “taxpayer,” recognizing that a high proportion of low-income individuals pay zero or negative income tax, after deducting refundable and non-refundable tax credits.

9 Under the federal government’s current accounting conventions, payments received under the Canada child tax benefit and its successor programs are treated as government spending rather than tax reductions. If these payments were instead netted from tax payments as in past practice, average tax rates reported for the bottom half of the income distribution would be substantially lower.

10 Nanak C. Kakwani, “Measurement of Tax Progressivity: An International Comparison” (1977) 87:345 *Economic Journal* 71-80 (<https://doi.org/10.2307/2231833>).

FIGURE 3 Tax and Income Concentration Curves, Canada, 2016

between the Gini coefficient for taxes and the Gini coefficient for incomes.) The Kakwani index for 2016, implied by the data in figure 2, is 23.8 percent, indicating a relatively high degree of redistribution through taxes relative to international norms.¹¹

PROGRESSIVITY OVER TIME

How has progressivity changed over time, particularly at the top? Figure 4 depicts the share of total income taxes paid by the top 1 percent of taxfilers, together with their corresponding share of total income including capital gains. As shown in figure 4, the share of income taxes paid by top taxfilers rose beginning in 1989 with the introduction of the high-income surtax, and peaked in 2000, when top 1 percent taxfilers received 12.7 percent of incomes and paid 21.9 percent of all income taxes. The top share of taxes then began to decrease, following the abolition of surtaxes in 1999 and 2000.

11 See, for example, Gerlinde Verbist and Francesco Figari, “The Redistributive Effect and Progressivity of Taxes Revisited: An International Comparison Across the European Union” (2014) 70:3 *FinanzArchiv* 405-29.

FIGURE 4 Tax and Income Shares and Average Tax Rates of Top 1 Percent Taxpayers, 1982-2016

However, the top income share rose simultaneously with the increase in top tax share, albeit less dramatically. (In a progressive tax system, increases in income tend to lead to increases in average tax rates of taxpayers, and thus more-than-proportionate increases in tax liabilities, exactly as observed in figure 4.) By 2014,¹² the top 1 percent's share of income was 11.6 percent and of taxes was 20.5 percent, providing a rough measure of the extent of tax progressivity at the top. The top percentile's average effective tax rate actually declined following its peak in the late 1990s. In this sense, much of the variation in the top tax share over time reflects changes in income, rather than tax policy choices *per se*.

It is useful to have a measure of changes in tax progressivity over time that reflect the effects of policy changes alone, and not the effects of changing inequality. The Kakwani index cannot be used to compare progressivity over time: as income inequality grows, the share of tax paid by top quantiles rises, moving the two concentration curves apart in figure 3 and increasing the index value, even in the absence of any tax policy changes. To deal with this, we need a version of the index that is invariant to changes in the underlying distribution of income.

One way to achieve this with the available data is to simulate the distribution of tax payments that would have been observed in each year by multiplying the observed average effective tax rates for each income group and year by a fixed average income

12 Tax and income distribution data are currently available up to 2016, but here I disregard the 2015 and 2016 tax years, where reported incomes of high-income taxpayers were likely influenced by the federal top rate increase, which was announced in 2015 and which probably led to intertemporal shifting of incomes—for example, through capital gains realizations.

in each bin. This gives a measure, albeit a somewhat crude one, of how the distribution of tax payments would have changed over time, given the changes in tax policy, if the distribution of individual incomes had remained constant. I have constructed simulated tax concentration curves using the observed effective tax rates for the vintile income bins (plus the four quantiles within the top 1 percent). The area between this function and the actual 2014 income concentration curve therefore gives a simulated Kakwani index of tax progressivity that captures differences in tax policy over time, but not differences in actual incomes.

Figure 5 shows the evolution of the Kakwani index of tax progressivity since 1997 for the simulated tax distribution. The results are perhaps surprising. By this measure, tax progressivity has remained relatively stable since 2009 despite the new brackets and higher top marginal rates. Indeed, the index declined slightly through most of the period, before rising somewhat in 2016. In contrast, the index of progressivity did increase quite substantially between 1992 and 1996, when the federal high-income surtax was in place, and between 2004 and 2009, when top tax rates were relatively stable, but there were decreases in marginal tax rates on middle tax brackets and real increases in the thresholds at which higher tax rates applied. This led to a decrease in average tax rates for taxpayers around median income, relative to the top decile, shifting a higher share of taxes to the top taxpayers and increasing progressivity.¹³ Regardless, tax progressivity has not changed much, despite the increases in top tax rates.

As discussed above, the Kakwani index is just one metric of average rate progressivity throughout the income distribution, and, like the Gini index of inequality, it puts a high weight on incomes in the middle of the distribution, perhaps disproportionately so relative to top incomes. The Suits index is an alternative measure of progressivity that reweights the distances between concentration curves in figure 3, putting a higher weight on top incomes.¹⁴ But the Suits index applied to our data shows essentially the same pattern as depicted in figure 5 for the Kakwani index. Again, the reason is that average tax rates on the top percentile of incomes have not changed much in Canada, while tax rates just below the top have actually declined.

WHY HAVE NEW TOP RATES HAD SUCH LITTLE EFFECT?

The foregoing discussion tells us that although top marginal tax rates have increased since 2009, as yet there has been little impact on redistribution. What can account

13 The data used in these calculations are derived from a 20 percent sample of tax returns that is included in Statistics Canada's Longitudinal Administrative Databank. In this sense, the index numbers reported are statistical estimates of underlying population parameters, but I do not have sufficient data to compute standard errors of those estimates. The reported differences in the index of tax progressivity over time are, however, small, and the changes discussed here might not be statistically significant.

14 See John P. Formby, Terry G. Seaks, and W. James Smith, "On the Measurement and Trend of Inequality: A Reconsideration" (1989) 79:1 *American Economic Review* 256-64.

FIGURE 5 Kakwani Index of Tax Progressivity, 1992-2016

for this? While the discussion here is preliminary and a bit speculative, one may suggest a couple of candidate explanations.

The first candidate explanation is that top-bracket thresholds are simply too high for top marginal rates to have much impact on redistribution. As noted above, the new federal top-bracket threshold has been set close to the 99th percentile of the distribution of taxable income (and higher in some provinces).¹⁵ Marginal tax rates apply only to taxable income above the threshold, and income is unequally distributed even within the top bracket, with disproportionately more taxpayers reporting incomes close to the threshold than there are at higher incomes in the bracket. Thus, an increase in the marginal tax rate in the top bracket raises comparatively little revenue from most taxpayers in the bracket, and its impact on average tax rate progression is small. That is indeed what the data show. The average tax rate of taxpayers in the top 1 percent remained roughly stable as provincial top rates increased between 2009 and 2015, before rising slightly with the new federal top bracket in 2016 (see figure 4). This suggests that if new top tax rates are to have much impact on tax revenues or tax progressivity, the bracket threshold should be lower than it is today. For example, reducing the federal top threshold from \$210,500 to around \$125,000 would bring the top 5 percent of taxpayers into the bracket, thereby raising more revenue and increasing progressivity.

The second candidate explanation is tax-avoidance responses. High-income taxpayers may change behaviour in various ways to offset the impact of rate increases, such as shifting income into lightly taxed forms such as dividends and capital gains or into corporate form, availing themselves of more tax deductions and credits, or moving income or tax residence out of the jurisdiction entirely. If tax-avoidance

15 Ontario and Alberta currently have thresholds above the federal level. New Brunswick and Ontario briefly experimented with even higher thresholds in recent years.

responses are large, reported incomes fall so much as marginal tax rates rise that tax revenue may actually fall. It is even possible that an increase in the top marginal tax rate causes the average tax rate in the bracket to fall, as a result of shifting income into lightly taxed forms. In this sense, tax-avoidance responses undermine the potential for redistribution through high marginal tax rates at the top.

So just how large are avoidance responses? An expansive literature in economics over the past 20 years has sought to estimate the elasticity of taxable income (ETI)—that is, the percentage reduction in average reported income resulting from a 1 percent decrease in the taxpayer's take-home share (1 minus the marginal tax rate). The range of estimates in the literature¹⁶ is fairly wide, varying across jurisdictions and taxpayer income levels, as well as depending on specifics of the statistical methodologies used by researchers. Examining the links between changes in top income shares and top marginal tax rates in the provinces during the 1988-2011 period, Milligan and Smart estimated the ETI to be approximately 0.7 for Canada.¹⁷ This estimate comes from differences in tax rates among provinces, and so may reflect taxpayers' ability to shift income interprovincially in Canada—for example, through the use of trusts. A federal tax rate increase that is common to all provinces might therefore be associated with a smaller ETI.¹⁸ However, many studies of high-income taxpayers in Canada and other countries have found tax responsiveness of similar magnitude.¹⁹

In subsequent work, Milligan and Smart used the estimated ETI to simulate the potential revenue gains from increases in provincial top marginal tax rates, starting from the actual tax rates and provincial distributions of taxable income prevailing in 2011.²⁰ They found that a 5 percentage point increase in top rates (close to what actually occurred in most provinces by 2016) would actually result in net revenue losses to federal and provincial treasuries, in all provinces except Alberta. In other words, avoidance responses are sufficiently large, and top marginal tax rates sufficiently high in Canada, that further tax rate increases would not increase

16 For an excellent survey, see Emmanuel Saez, Joel Slemrod, and Seth H. Giertz, "The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review" (2012) 50:1 *Journal of Economic Literature* 3-50 (<https://doi.org/10.1257/jel.50.1.3>).

17 Kevin Milligan and Michael Smart, "Taxation and Top Incomes in Canada" (2015) 48:2 *Canadian Journal of Economics* 655-81 (<https://doi.org/10.1111/caje.12139>).

18 See Kevin Milligan and Michael Smart, "An Estimable Model of Income Redistribution in a Federation: Musgrave Meets Oates" (2019) 11:1 *American Economic Journal: Economic Policy* 406-34 (<https://doi.org/10.1257/pol.20160600>).

19 For example, 0.84 is the average of top income elasticities in research surveyed in Raj Chetty, "Bounds on Elasticities with Optimization Frictions: A Synthesis of Micro and Macro Evidence on Labor Supply" (2012) 80:3 *Econometrica* 969-1018 (<https://doi.org/10.3982/ECTA9043>).

20 K. Milligan and M. Smart, "Provincial Taxation of High Incomes: The Effects on Progressivity and Tax Revenue," in David A. Green, W. Craig Riddell, and France St-Hilaire, eds., *Income Inequality: The Canadian Story* (Montreal: Institute for Research on Public Policy, 2015), 479-507.

revenue, unless more were done to limit tax-avoidance responses. While Milligan and Smart did not study impacts on average rate progressivity *per se*, it is clear that the potential in Canada for redistribution through rate increases on the top 1 percent is limited at best.

CONCLUDING REMARKS

In this brief article, I have described the evolution of top income tax rates in Canada since 1982, and examined implications for the progressivity of the tax system. The new top brackets and higher top marginal rates enacted by Ottawa and many provinces since 2009 have had only minor impacts on tax revenue and redistribution through the tax system. More important for progressivity were earlier reforms, which affected taxes for a far larger share of the population.

Ongoing policy debates in the United States and Canada have focused on reforms that would impose much higher marginal tax rates on income, but only at much higher bracket thresholds. A recent proposal for a 70 percent marginal rate on incomes over \$10 million was framed in US policy circles, but it appears to have some resonance for Canadians as well. The analysis in this article suggests several reasons for caution here. Such a high bracket threshold would severely limit the impact of the reform (less than 0.01 percent of Canadians reported incomes over \$3 million in 2016), and tax-avoidance responses would almost certainly outweigh the direct effects of such a tax increase on revenues. The data clearly show that, to increase tax progressivity, it is necessary to target rate increases at lower thresholds of top income, or to address preferential tax rates on capital income and avoidance opportunities available to top taxpayers.

INTERNATIONAL TAX PLANNING

Co-Editors: Ken Battenham and Ian Bradley*

THE STOP-LOSS RULES AND CORPORATE REORGANIZATIONS—INTERPRETIVE CHALLENGES

*Ian Bradley and Jonathan Bright***

Tax rules often present interpretive challenges. One such challenge involves the stop-loss rules, which can suspend the recognition of a loss realized on a transfer of shares between affiliated persons. Continuity rules prevent a suspended loss from being released as a result of certain corporate reorganizations. One continuity rule applies to mergers and combinations, while others apply to certain types of windups. The Canada Revenue Agency recently issued a broad interpretation of the former rule, arguing that in this context a “merger or combination” can include a winding up—even if the woundup corporation has multiple shareholders. In this article, the principles of statutory interpretation are applied to the relevant provisions, to determine their true meaning. This analysis indicates that the continuity rule for mergers and combinations does not apply to windups.

KEYWORDS: STOP-LOSS RULES ■ REORGANIZATION ■ WINDUPS ■ MERGERS ■ STATUTORY INTERPRETATION

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PERSONAL TAX PLANNING

Co-Editors: Brian J. Anderson,* Jim MacGowan,** Sonia Gandhi,** and Dino Infanti***

GILTI—INTRODUCTION TO GILTI AND ITS APPLICATION TO US SHAREHOLDERS OF CANADIAN CORPORATIONS

*Michael Pereira, Pinaki Gandhi, and Hena Park*****

The new global intangible low-taxed income (GILTI) regime, introduced as part of the 2017 US tax reform, attributes income of certain foreign corporations in excess of an arbitrary 10 percent return to intangible assets and subjects such income to US tax on a current basis for certain US individual shareholders. This article explains how US citizens resident in Canada who are subject to the GILTI rules may effectively manage the adverse implications of the regime by utilizing an election under section 962 of the Internal Revenue Code. The election allows individual shareholders to be taxed at the US domestic corporate tax rate of 21 percent (instead of a maximum personal tax rate of 37 percent), claim a deduction for 50 percent of the GILTI inclusion, and claim foreign tax credits for a portion of Canadian corporate taxes paid. With this election, a combined corporate and personal global tax liability may remain mostly consistent with the pre-GILTI era. On the other hand, if the GILTI exposure is not appropriately managed, the result is significantly different.

With proper advice and reporting, for some US shareholders, the GILTI provisions may be a case of “much ado about nothing.” However, for US shareholders of corporations that pay the small business rate, there is a small tax cost to the GILTI inclusion for maintaining the benefit of deferral. For all US shareholders of Canadian corporations, there are still some unaddressed issues that add complexity and uncertainty to the preparation of those individuals’ US income tax returns.

KEYWORDS: US ■ TAX REFORM ■ GILTI ■ SHAREHOLDERS ■ CFC ■ FOREIGN TAX CREDITS

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PLANIFICATION FISCALE PERSONNELLE

Co-rédacteurs de chronique : Brian J. Anderson*, Jim MacGowan**,
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GILTI — INTRODUCTION AU GILTI ET À SON APPLICATION AUX ACTIONNAIRES AMÉRICAINS DE SOCIÉTÉS CANADIENNES

*Michael Pereira, Pinaki Gandhi et Hena Park*****

Le nouveau régime du revenu mondial à faible taux d'imposition tiré de biens incorporels (*global intangible low-taxed income* [GILTI]), instauré dans le cadre de la réforme fiscale américaine de 2017, attribue le revenu de certaines sociétés étrangères excédant un rendement arbitraire de 10 pour cent aux biens incorporels et assujettit ce revenu à l'impôt américain à payer par certains particuliers actionnaires américains dans l'année où le revenu est gagné. Le présent article explique comment les citoyens américains qui résident au Canada et sont assujettis aux règles sur le GILTI peuvent contrer les effets négatifs du régime au moyen du choix visé à l'article 962 de l'*Internal Revenue Code*. Le choix permet aux particuliers actionnaires d'être imposés au taux d'imposition américain des sociétés de 21 pour cent (au lieu du taux d'imposition maximal des particuliers de 37 pour cent), de demander une déduction de 50 pour cent de l'inclusion du GILTI et de demander des crédits pour impôt étranger pour une partie des impôts canadiens des sociétés qui ont été payés. Grâce à ce choix, l'impôt mondial combiné des sociétés et des particuliers à payer peut demeurer essentiellement le même qu'avant l'adoption du GILTI. Par contre, une gestion moins efficace de l'exposition au GILTI peut donner un résultat très différent.

Avec de bons conseils et informations, les dispositions relatives au GILTI pourront représenter, pour certains actionnaires américains, « beaucoup de bruit pour rien ». Cependant, pour les actionnaires américains des sociétés qui paient le taux d'imposition

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des petites entreprises, il y a un petit coût fiscal à l'inclusion du GILTI pour conserver l'avantage du report. Pour tous les actionnaires américains de sociétés canadiennes, il reste des questions qui n'ont pas été abordées et qui ajoutent complexité et incertitude à la préparation des déclarations de revenus américaines de ces particuliers.

MOTS CLÉS : ÉTATS-UNIS ■ RÉFORME FISCALE ■ GILTI ■ ACTIONNAIRES ■ SEC ■ CRÉDITS POUR IMPÔT ÉTRANGER

SELECTED US TAX DEVELOPMENTS

Co-Editors: Peter A. Glicklich* and Michael J. Miller**

AVOIDING THE “COMMERCIAL ACTIVITY” TRAPS FOR FOREIGN SOVEREIGNS INVESTING IN US REAL ESTATE

*Michael J. Miller***

US tax laws include a favourable exemption for certain types of US income earned by foreign sovereigns and their controlled entities. Unfortunately, however, there are a number of traps relating to the conduct of commercial activities. The applicable rules are not always intuitive, or even rational, so careful planning is needed.

KEYWORDS: FOREIGN INVESTORS ■ REAL PROPERTY ■ US ■ TAXATION ■ SOVEREIGNS

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CURRENT TAX READING

Co-Editors: Robin Boadway, Kim Brooks, Jinyan Li, and
Alan Macnaughton*

Alexandre Laurin, *Unhappy Returns: A Preliminary Estimate of Taxpayer Responsiveness to the 2016 Top Tax Rate Hike*, C.D. Howe Institute E-Brief
(Toronto: C.D. Howe Institute, September 27, 2018), 8 pages

Beginning in 2016, the federal government created a new tax bracket that starts at \$200,000, and it increased tax rates in that bracket from 29 percent to 33 percent. Laurin investigates how much additional tax revenue was raised by that tax change.

The results of such an enquiry will depend on how the tax base at high-income levels responded to the tax increase. The high-income tax base in 2016 might have fallen if taxpayers had responded to the tax change by changing the timing of their (mainly dividend) income to 2015 in anticipation of the tax increase, or if they had changed their behaviour—for example, by choosing to earn less income. To the extent that the tax base falls, the revenue gain to the federal government from the increase in the tax rate is compromised. The tax revenues of the provinces, whose tax rates have not changed, unambiguously fall with the tax base.

Laurin provides a rough first estimate of these effects that is based on preliminary statistics released by the Canada Revenue Agency (CRA). His method of analysis is to compare the change in the tax base that occurred in the top income group with the change in the tax base that occurred in the next income group down. The latter change reflects economic factors other than the tax rate change. Reported income in the top bracket differed in two respects from that of the next income group down. First, the top tax base temporarily increased in 2015, then significantly declined in 2016. Laurin attributes this temporary increase to one-off forestalling—that is, moving some income up to 2015 that would otherwise have been reported in 2016. He estimates that this forestalling effect increased the income tax base by \$20.6 billion in 2015, of which \$13.7 billion was unwound in 2016. When forestalled income is removed from the data, there remains a reduction in taxable income of \$5.7 billion, attributable to behavioural change. This translates into a short-run elasticity of taxable income of about 0.56, which is comparable to estimates in the literature.

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Laurin calculates that, as a result of these behavioural responses, the increase in the top tax rate yielded only one-third of the federal income tax revenues that would have been raised in the absence of this increase. He estimates the increase in tax revenue, when one-off forestalling is left out, to be \$1.2 billion, about \$0.8 billion less than budgeted. In addition, provincial tax revenues are estimated to have fallen by about \$1.3 billion owing to the behavioural response, a loss that outweighs the gain in federal revenues.

Laurin suggests some policy responses. One would be to devote more resources to tax enforcement in order to reduce the behavioural response. A second would be to reduce the federal tax rate so that the combined federal-provincial rate does not exceed 50 percent. A third would be to double the income threshold at which the top tax rate applies. He estimates that this would cost the federal government \$500 million (in the short run) but would, by expanding the base, increase provincial revenues by \$700 million. Of course, all of these proposals presume that provincial tax rates do not respond to the federal changes.

R.B.

B. Cecilia Garcia-Medina and Jean-François Wen, "Income Instability and Fiscal Progression" (2018) 51:2 *Canadian Journal of Economics* 419-51

Employment and earnings are becoming more volatile as temporary work and self-employment become more common. Some of the uncertainty that this causes can, in principle, be addressed by employment insurance, but most workers that face fluctuating incomes are not eligible for such insurance, either because self-employment rules them out or because they are unable to meet the qualifying criteria. One policy that implicitly provides insurance to these workers is the progressive income tax and transfer system. This innovative paper by Garcia-Medina and Wen provides a quantitative evaluation of the changes in the income volatility of working-age households between 1993 and 2008, and the extent to which these changes were attenuated by the income tax system.

Income volatility is measured by the variance of the logarithm of transitory incomes for family incomes both pre-fisc (before income taxes and transfers) and post-fisc (after taxes and transfers). The ratio of post-fisc to pre-fisc variances, which is called "the stabilization ratio," indicates the extent to which the tax-transfer system mitigates transitory income volatility. Data used to obtain transitory incomes come from the longitudinal panel data reported in the Survey of Labour and Income Dynamics. Calculations are done for the entire working-age population, as well as for four subsets of the population differentiated according to the levels of education of the family head: (1) less than high school, (2) high school, (3) college, and (4) university. For each of these population groups, the variance of incomes is decomposed into permanent and transitory components through the use of well-known statistical procedures. The variance of the permanent components represents a measure of inequality, while the variance of the transitory components indicates volatility.

In the pre-fisc situation, the transitory income variance for the full population is roughly constant over time, and it is, on average, about 18 percent of total income variance. The variance of the permanent component increases by about 20 percent over the period, a result that reflects the growing inequality of market incomes. Similar patterns are found for the four education subgroups, but both permanent and temporary income variances tend to be higher for less-educated groups.

The stabilization ratios for the full population—that is, the ratio of post-fisc to pre-fisc variances of temporary income—rise over the period, from about 0.57 to 0.70. This means that, at the end of the period, only 30 percent of the pre-fisc income volatility was absorbed by the tax-transfer system, down from 43 percent at the beginning of the period. This reflects a reduction in tax progressivity, as discussed below. Broadly similar patterns apply for education subgroups. The stabilization ratio tends to be higher for more-educated households than for less-educated households. Thus, although less-educated families face more income volatility, less of this volatility is absorbed by the tax-transfer system.

To interpret these results in terms of income tax progressivity, Garcia-Medina and Wen derive a novel result. They take from the literature the notion of residual-income progressivity (RP), which is defined as the elasticity of post-fisc income with respect to pre-fisc income. This elasticity will be less for more progressive tax systems. RP can also be expressed as the ratio of $1 - \text{MTR}$ to $1 - \text{ATR}$, where MTR is the marginal income tax rate and ATR is the average tax rate. The authors show that if RP is constant across income levels, its squared value is exactly equal to the stabilization ratio of variances. They present some empirical analysis to show that RP-squared is, statistically, virtually the same as the stabilization ratio.

For the population as a whole, RP-squared rises over time, showing that tax progressivity is decreasing. The increase in RP-squared is largely driven by increases in $1 - \text{MTR}$ —that is, decreases in the marginal tax rate that result from a flattening of the rate structure. Similar patterns apply for different education subgroups. The values of RP-squared increase for all groups, and they are higher for groups that have more education. Values of $1 - \text{MTR}$ also increase over time for all groups, and they are higher for more-educated families. $1 - \text{ATR}$ is relatively unchanged for all groups.

In summary, the main finding is that the ratio of transitory variances—the stabilization ratio—increased over the period, especially after the 1998–2001 period, when major income tax reforms occurred and when provincial social assistance rates were relatively low. At the same time, the tax-transfer system absorbs relatively more of the instability of less-educated families. Garcia-Medina and Wen do not pursue the policy implications of these findings, but one such implication, presumably, is that a return to general income averaging is worth investigating.

R.B.

Erich Hartmann, Jordann Thirgood, and Andrew Thies, *A Fair Fiscal Deal: Towards a More Principled Allocation of Federal Transfers*, Mowat Research no. 166 (Toronto: University of Toronto, Munk School of Global Affairs and Public Policy, Mowat Centre, July 2018), 25 pages

The federal tax-transfer system as a whole (including intergovernmental transfers), if it is considered in terms of a zero-sum exercise, is bound to have gainers and losers. The gainers and losers may be classified by income class, or, in the Canadian federal context, by provinces. Since different provinces are populated by different income distributions, higher-income provinces are likely to be losers, or (to use a less charged term) net contributors. In this report from the Mowat Centre, the question addressed by Hartmann, Thirgood, and Thies is whether the extent of the net contribution by Ontario residents as a whole is fair. The authors do not dispute that Ontario should be a net contributor to the federal tax-transfer system, but they argue that in the case of the major transfers to individuals and provincial governments, the design of the transfer system violates some basic fairness principles and that this works to Ontario's significant disadvantage.

To set the stage, Hartmann et al. calculate Ontario's net fiscal contribution for each of the 10 years from 2007 to 2016, along with the cumulative net contributions by each of the other provinces over the same period. This involves toting up (1) all federal tax revenues collected by each province, and (2) all federal transfers to each province and to the individuals who reside in each province. The difference is the net contribution. Ontario's annual net contribution ranges from \$6.5 billion to \$13 billion, and the cumulative 10-year total is \$96.3 billion. This contribution is second only to that of Alberta, whose cumulative 10-year contribution is \$228.6 billion. British Columbia and Saskatchewan were the only other net contributors. All other provinces were net beneficiaries, with Quebec by far the largest at \$116.7 billion—although Quebec's benefit was lower than the others in per capita terms. Oddly enough, Ontario was an equalization recipient for most of the period, while Newfoundland and Labrador was a net recipient despite being ineligible for equalization for much of the period.

Hartmann et al. focus their remaining attention on the treatment of Ontario, and they argue, on the basis of some principled allocation methods that they propose, that this province contributed excessively compared with others. Their principles focus entirely on federal spending, and they presumably accept that the revenue-raising side is fair. They suggest that federal spending should be allocated among provinces (1) in a clear and transparent way; (2) fairly, no matter where the recipients live; (3) in accordance with the policy objectives of the transfer; and (4) predictably, though with flexibility. Depending on the transfer scheme involved, shares could be (1) equal per capita, (2) based on the size of a target population, (3) need-based, or (4) merit-based.

The authors use these principles to assess five major federal transfer programs that make up almost 70 percent of federal spending: equalization, social transfers (Canada Health Transfer/Canada Social Transfer [CHT/CST]), other transfers to provinces, employment insurance (EI), and old age security (OAS). Of these five, two

are reckoned to be principled: CHT/CST and OAS. CHT/CST transfers are equal per capita, and the authors argue that this is reasonable, given that these social transfers are intended mainly to close a vertical fiscal gap between the revenue-raising and expenditure responsibilities of the provinces, and are not intended to address horizontal imbalances. (Given the fact that equal per capita transfers to the provinces financed by federal general revenues are in fact equalizing, one might quibble with this argument.) OAS transfers to the elderly are deemed to be fair on the grounds that they are intended to be needs-based transfers and are allocated on that basis.

The other three federal transfer programs are judged to be unprincipled and to work to the detriment of Ontario. Equalization is based only on revenue capacity and not on expenditure need. Given the relatively high wage level in Ontario, the cost of providing public services in that province is well above average and ought to be recognized in a principled equalization system. On the basis of a literal reading of the equalization commitment in section 36 of the Constitution,¹ one might reasonably argue that both expenditure needs and revenue capacities ought to be equalized. However, such a measure was ruled out as being too complicated and non-transparent by the report of the Expert Panel on Equalization and Territorial Formula Financing to the Department of Finance—the report upon which the current system is based.

Other transfers to the provinces consist of a variety of specific-purpose transfers to which it is hard to attribute a particular principle. Hartmann et al. use equal per capita transfers as a proxy principle, and they find that Ontario falls below the national per capita average in every year but one. They cite Labour Market Development agreements as an example of other transfers, and they argue that a reasonable criterion is to allocate such transfers on a per-client basis (that is, on the basis of the number of unemployed). They calculate that although Ontario has about 38 percent of the nation's population, it receives only 30 percent of funds under these agreements.

Finally, Hartmann et al. turn to EI. They argue that a principled allocation of EI benefits would be based on the number of unemployed in each province. Because of varying eligibility rules across the country and differences in regional employment patterns (for example, full-time versus part-time), Ontario's share of EI benefits falls far short of its share of unemployed. They calculate that if Ontario's unemployed received EI benefits on a per-client basis, the province would have received \$11.8 billion more during the 2016-2017 period than it received.

By increasing the fairness of equalization, EI and other transfers would reduce Ontario's net contribution significantly without eliminating it. The notion of an ideal allocation of transfers is well worth proposing and defending, though widespread consensus on what constitutes fair principles is unlikely. Hartmann et al. have staked a reasonable first claim.

R.B.

1 Constitution Act, 1982, being schedule B to the Canada Act 1982 (UK), 1982, c. 11.

Bridget J. Crawford and Anthony C. Infanti, eds., *Feminist Judgments: Rewritten Tax Opinions* (New York: Cambridge University Press, 2017), 329 pages

Feminist academics and practitioners have been rewriting judicial decisions at a fervent pace over the last 15 years. The first set of feminist rewrites (six judgments) was published in 2006 in the *Canadian Journal of Women and the Law*.² Academics in other countries followed suit, and collections of judgments have been released in the United Kingdom,³ Australia,⁴ the United States,⁵ Ireland,⁶ and New Zealand,⁷ with feminists in other countries planning to add to this accumulating literature.

One might not have predicted that tax judgments would be the subject of feminist rewriting, yet that is precisely the project in Crawford and Infanti's spectacularly edited collection. The book features 11 rewritten American tax decisions—six Supreme Court decisions, one federal circuit court opinion, and four Tax Court opinions. The subject matter of the cases ranges from medical expense deductions, to tax-filing status, to Indian rights. This book may not be required reading for a practitioner who faces a daunting slate of technical amendments and new Canadian tax decisions. However, if you can find a quiet moment, you will find that the book offers some higher-order insights into the writing of tax law judgments.

The parameters for rewriting the judgments were strict. The authors had to rely on precedents and authorities available at the time that the initial decision was rendered. The earliest decision in the set was rendered in 1903, the most recent in 2013.⁸ The contributors could write majority opinions (seven contributors did), dissents (two contributors did), or concurrences (one contributor did). The 11th author wrote a judgment that was in part a dissent and in part a concurrence. The length of the judgments was limited to 10,000 words.

In addition to the 11 decisions, *Feminist Judgments* includes a commentary on each. Each commentary, which precedes the case to which it relates, establishes valuable context for the judgment that follows. Each author was charged with explaining the original court decision, identifying how the rewritten judgment

2 (2006) 18:1 *Canadian Journal of Women and the Law* 1-376.

3 Rosemary Hunter, Clare McGlynn, and Erika Rackley, eds., *Feminist Judgments: From Theory to Practice* (West Sussex, UK: Hart, 2010).

4 Heather Douglas, Francesca Bartlett, Trish Luker, and Rosemary Hunter, eds., *Australian Feminist Judgments: Righting and Rewriting Law* (West Sussex, UK: Hart, 2014).

5 Kathryn M. Stanchi, Linda L. Berger, and Bridget J. Crawford, eds., *Feminist Judgments: Rewritten Opinions of the United States Supreme Court* (New York: Cambridge University Press, 2016).

6 Máiréad Enright, Julie McCandless, and Aoife O'Donoghue, eds., *Northern/Irish Feminist Judgments: Judges' Troubles and the Gendered Politics of Identity* (West Sussex, UK: Hart, 2017).

7 Elisabeth McDonald, Rhonda Powell, Mamari Stephens, and Rosemary Hunter, eds., *Feminist Judgments of Aotearoa New Zealand* (West Sussex, UK: Hart, 2017).

8 *United States v. Rickert*, 188 US 432 (1903) and *United States v. Windsor*, 570 US 744 (2013).

varies from it, and articulating how the feminist approach might have led to a different result.

The collection also includes a substantial contribution from Kathleen Lahey that is not a judgment. In this chapter, Lahey compares Canadian and American approaches to gender in constitutional and tax law. She underscores the importance of the Convention on the Elimination of All Forms of Discrimination Against Women⁹ and of our Charter¹⁰ as major factors in the differences between the Canadian and US approaches. She reviews the decisions of our Supreme Court in *Symes* and *Thibaudeau*,¹¹ contrasting their progressive spirit with the American aversion to affirmative action. Finally, she situates the book in the context of broader international initiatives that might assist in moving countries toward greater gender equality in the design of tax laws.

Ultimately, the editors of the collection note that the book's judgments and commentary suggest three conclusions:

First, tax law is political. Second, statutes are just as subject to interpretation as constitutional provisions. And third, incorporating feminist methods or theories into the interpretive process of judicial decision-making can lead to results that may (or may not) vary from a decision that does not incorporate that perspective.¹²

K.B.

Vito Tanzi, *The Ecology of Tax Systems: Factors that Shape the Demand and Supply of Taxes* (Cheltenham, UK: Edward Elgar, 2018), 175 pages

Vito Tanzi has made a legacy contribution to a variety of international organizations, including the World Bank, the United Nations, and the International Fiscal Association (where he served for many years as the director of the Fiscal Affairs Department). The 12 chapters in this book are derived from some of his previous papers. The central claim of the book is that tax scholars and policy makers undervalue the supply-side influencers of tax design. He refers to these influencers as the “ecology of taxation.” They include (1) the changing views of the economic role of government, (2) the structures of economies, (3) international relations, (4) technology, and (5) economic fluctuations and bubbles.

The book makes for fascinating reading. Among other attributes, it offers a summary glance at how dramatically the world has changed since many of our major tax systems were designed and implemented. Tanzi asks us to think about the consequences of changes such as the relaxation (and re-tightening?) of foreign trade

9 The Convention on the Elimination of All Forms of Discrimination Against Women was adopted by the United Nations General Assembly on December 18, 1979, and entered into force as an international treaty on September 3, 1981.

10 Canadian Charter of Rights and Freedoms, part I of the Constitution Act, 1982, *supra* note 1.

11 *Symes v. Canada*, [1993] 4 SCR 695 and *Thibaudeau v. Canada*, [1995] 2 SCR 627.

12 *Feminist Judgments*, at 20.

restrictions; the increasing derivation of personal income from the sale of labour to large enterprises; the concentration of wealth in fewer, larger units; the decline (or increase) in the share of national income from industries such as agriculture and mining; the rise (or decline) in rates of inflation; the availability of technologies (including the rise of the Internet and, presumably, of artificial intelligence) that facilitate tax collection and the imposition of new taxes; and changes to the education of the citizenry. It is likely that all of these factors have profound effects on the design of tax systems (and on the need for changes to that design), and yet we rarely explore these effects, choosing instead to focus our analytical energies on how taxes are designed to respond to revenue demands or on the economic implications of the imposition of particular taxes.

Each chapter addresses a high-level policy problem. Chapter 2 looks at the need for greater coordination among countries (echoing Tanzi's earlier calls for a world tax organization as a global public good). Chapter 3 identifies factors that promote tax complexity, suggesting that we should pay greater attention to the regular and continuous small changes that make tax systems increasingly complex. Chapters 4 and 5 turn to the seemingly intractable problem of taxing high-income individuals (including those who engage in tax evasion), and Tanzi chastises economic theories and the lack of international cooperation for their roles in reducing the amount of tax paid by people in the upper-income echelons. Chapter 6 investigates the relationship between fiscal crises, tax rates, and monetary policy, repeating Tanzi's common theme regarding the need for more harmonization (he urges the establishment of a European fiscal authority). Chapter 7 runs counter to the dominant discourse in some international tax circles, urging policy makers in lower- and middle-income countries to focus—before they rush to raise additional tax revenue—on how to raise taxes progressively and how to spend tax revenue without creating dependency and poverty traps. In a related undertaking, chapter 8 takes on the question of why developing countries have low tax levels; it concentrates on supply and governance factors and argues that the “ecology of taxation” approach facilitates understanding. Tanzi's contribution to tax reform in Latin America was substantial, and chapter 9 reflects his long-standing interest in the region; ultimately, his assessment is that the region has made a lot of progress in its tax policy but that the quality of public services remains insufficient (a finding that aligns with his position in chapter 8). In chapter 10, which turns to the question of what is needed to enhance fiscal capacity in developing countries, Tanzi's long-time service as an expert tax adviser is apparent. Finally, chapter 11 looks at revenue-sharing arrangements for federations—a once-popular but now seemingly dormant academic topic. In this chapter, he offers a typology of tax-assignment possibilities, with a brief evaluation of each. (Spoiler alert: he believes that there is no one-size-fits-all solution.)

Tanzi concludes with a final plea to tax experts to spend less time on narrow technical issues and more time on the factors that influence the design of tax systems.

K.B.

Jay A. Soled and Kathleen DeLaney Thomas, “Automation and the Income Tax” (2018) 10:1 *Columbia Journal of Tax Law* 1-48 (<https://taxlawjournal.columbia.edu/article/automation-and-the-income-tax/>)

The academic literature concerning the end of labour proliferates today, in the face of promises that robots will soon perform the major productive tasks of life—what we used to call “jobs.” Soled and Thomas ask how the tax system will survive in the face of these anticipated transformations. Their short answer is, not well.

Set in the US context, section II of the paper provides a background to the labour-capital tax divide in the Code.¹³ Section III offers a review of automation’s effects. Section IV anticipates how Congress will need to respond if the tax system is to continue as a robust revenue-raising tool.

Not to dismiss the rest of the paper, but the summary in sections II to IV highlights a couple of matters worth dwelling on. First, in section II’s background discussion, the authors provide a succinct statement of the rationales for treating labour, business profits and investment, and capital gains differently from one another in the current tax system. It is a useful, high-level discussion of these rationales, which aren’t technical tax rationales. Instead, the authors primarily cite political and administrative rationales. Second, for those who have been trying to avoid reading about the (as it seems) inevitably transformative effects of automation, part III’s review of these effects is well worth reading. Ultimately, the authors focus on three directions for congressional reform: embrace a universal progressive tax rate structure, reduce the subsidy to capital, and alter the approach to social security.

K.B.

Sebastian Beer, Ruud de Mooij, and Li Liu, *International Corporate Tax Avoidance: A Review of the Channels, Magnitudes, and Blind Spots*, IMF Working Paper WP/18/168 (Washington, DC: International Monetary Fund, 2018), 45 pages

Beer, de Mooij, and Liu have put together a useful primer on corporate profit shifting. It explains the various mechanisms used by multinational corporations (MNCs) to move reported profits among affiliates, and it summarizes the literature’s empirical estimates of the magnitude of profit shifting. The estimate of such shifting is captured in the semi-elasticity of reported profits of an affiliate in a given country with respect to the international tax differential that the country faces. Specifically, the semi-elasticity measures the percentage change in reported profits in response to a one-percentage-point change in the tax differential, holding real activity fixed. Profit shifting results in a negative value for the semi-elasticity, with greater negative values indicating more responsiveness to tax differential changes. Beer et al. use a meta-analysis of existing studies to estimate a consensus value for the semi-elasticity.

¹³ Internal Revenue Code of 1986, as amended.

The paper begins with a cursory review of the key features of the international corporate tax environment, including the conventional tax treatment of the active and passive business income of MNCs, and the role of permanent establishments, controlled foreign company rules, withholding taxes, and tax treaties. This review is followed by a careful discussion of the many channels of profit shifting, including a survey of some of the empirical studies of each channel. Among the profit-shifting mechanisms discussed are transfer pricing, international debt shifting, relocation of intellectual property, tax treaty shopping, tax deferral through the postponement of profit repatriation, and the changing of country of residence by corporate inversion. Various anti-avoidance measures are briefly discussed, including transfer-pricing regulations, thin capitalization rules, controlled foreign corporation rules, and general anti-avoidance rules.

The core of the paper reviews the empirical evidence of aggregate profit shifting by all mechanisms collectively. Some 37 studies are reviewed, covering the period 1994-2017. The earlier studies use cross-sectional data, and more recent ones use firm-level panel data. The studies use variants of an estimating equation that regresses reported profits in country i (in logarithmic form) against the difference between the corporate tax rate in country i and the average corporate tax rate among affiliates of the same group. A number of control variables are added to account for other effects on affiliate profits, and there may be an interaction term (between the tax differential and other explanatory variables) that affects the elasticity of profit shifting. The estimated coefficient on the tax differential is the semi-elasticity of reported profits with respect to the tax differential. The 37 studies included in the meta-analysis yield 402 separate semi-elasticities, which have an average value of -1.6 . Different subsamples yield comparable semi-elasticities. The semi-elasticities decline over time, which may reflect either a reduction in tax responsiveness or an increased use of more disaggregated data (firm-level versus country-level).

Through the use of the semi-elasticities observed in several studies, a meta-regression estimates an underlying semi-elasticity by controlling for structural differences among studies. Specifically, observed semi-elasticities are regressed against a constant term and against several dummy variables that capture (1) data features (micro versus aggregate), (2) the profit measures used (reported profit versus profit ratio), (3) the tax variables (statutory rate versus effective tax rate), (4) the measures of real activity and debt, and (5) time. The estimated constant term is the consensus semi-elasticity. A number of different specifications are estimated, and the preferred one yields a semi-elasticity of reported profits with respect to the tax differential of -0.98 : a one percentage point increase in the tax differential leads to a reduction in reported profits of about 1 percent. The value of this semi-elasticity increases to about -1.4 if real activity is not controlled for. The estimated semi-elasticity increases in absolute value over time, from 0.6 in 1990 to 1.5 in 2015.

These estimates are used to estimate tax revenue losses induced by profit shifting in various countries. By far the largest of these losses is in the United States, where the estimated fall in corporate tax revenues in 2015 is 17.2 percent. This figure may

be compared with a 4.1 percent fall for the largest 15 countries, and a 2.6 percent fall for all 30 countries in the sample (which does not include Canada). For the 15 countries with the lowest corporate tax rates, there is a gain in corporate tax revenues of almost 20 percent.

As the authors stress, many aspects of profit shifting are not addressed by the studies cited in the paper. Only aggregate profit shifting is estimated, not individual forms of profit shifting, and not the interactions between different forms. Nor is there evidence regarding variations in tax avoidance among countries or in the effects of anti-avoidance measures. Finally, there is little evidence concerning the interaction between profit shifting and the reallocation of real production activities among countries. Nonetheless, the magnitude of the semi-elasticities of reported profits with respect to the corporate tax differential lends support for concerns about pressures for international tax competition.

R.B.

Elias Steinmüller, Georg U. Thuncke, and Georg Wamser, “Corporate Income Taxes Around the World: A Survey on Forward-Looking Tax Measures and Two Applications” (2019) 26:2 *International Tax and Public Finance* 418-56

The stylized view of the evolution of corporate taxation in an increasingly globalized and open world economy comprises many elements. The safest prediction is that, as capital becomes more mobile, tax competition intensifies and corporate tax rates fall. This seems to have been borne out in practice, but, surprisingly, corporate tax revenues as a percentage of gross domestic product (GDP) have remained buoyant. The decline in corporate tax rates also reflects the common perception that this tax is unnecessarily distortionary and that it erodes investment and productivity in a highly competitive environment. Both the mobility of capital and the presumed effect of the corporate tax on investment suggest that the elasticity of the corporate tax base with respect to the rate may be high, thereby reducing the revenue-raising value of the corporate tax.

This study by Steinmüller, Thuncke, and Wamser sheds considerable light on these issues. It first documents changes in statutory and effective corporate tax rates for a large sample of countries around the world over the past two decades. It then uses these effective tax rates to estimate the responsiveness of both tax revenues and investment to effective tax rates.

Three well-known measures of corporate tax rates are compiled. First, statutory tax rates (STRs) are obtained for 178 countries from 1996 to 2016. On average, STRs declined each year over this period, but the decline was particularly pronounced from 1996 to 2011 (close to 8 percentage points), with only modest declines in subsequent years. All years saw considerable variation in STRs across countries. In the absence of other changes in tax policy, reductions in STRs might be expected to reduce tax revenues. Any broadening of corporate tax bases would counter that effect and might explain why, in practice, corporate tax revenues have remained buoyant.

To obtain a proxy of base-broadening measures, Steinmüller et al. calculate the net present value (NPV) of tax depreciation allowances for 142 countries between 2004 and 2016. Lower values of the NPV correspond with larger tax bases. The average NPV fell rapidly from 2004 to 2009, and has fallen very little since then. Although earlier studies have shown that STR reductions were accompanied by base-broadening in the 1990s and before, such broadening did not materialize in more recent years.

The second measure is the effective marginal tax rate (EMTR). This measure is of the share of profits paid in corporate taxes on the marginal investment. Higher EMTRs, which result from less generous deductions and credits for capital costs as well as from higher tax rates, reduce the incentive to invest. From 2004 to 2011, the average EMTR fell by about 3 percentage points, to 11.2 percent, and it has remained relatively constant since then. This is consistent with reductions in STRs that out-paced reductions in NPVs.

Finally, the effective average tax rate (EATR) measures the proportion of profits of the representative (non-marginal) investment project that is paid in corporate taxes. Like EMTRs, these rates decreased each year between 2004 and 2016, with the decline more rapid from 2004 to 2011. Overall the EATR fell by about 4 percentage points, to 18.4 percent, and varied across countries. Data were also presented on EMTRs and EATRs at the industry level over the period 2004-2014.

The latter part of the paper uses these data to undertake two empirical applications. First, the paper estimates the relationship between countries' tax revenues and each of the three measures of effective tax rates. The preferred estimates regress tax revenues against the chosen effective tax rate, the tax rate squared, the GDP growth rate, and both year and country fixed effects. For each of the three effective tax rates, the relationship between tax revenue and the tax rate takes the form of a Laffer curve—that is, an inverted U-shape relationship. In the case of the STR, the peak of the Laffer curve, corresponding with maximum corporate tax revenue, is at a tax rate of 31 percent. However, this peak occurs at an EMTR of 17 percent and an EATR of 27 percent. These are average values across the 112 countries included in the estimation. These revenue-maximizing effective tax rates exceed the average STR, EMTR, and EATR values observed in practice. The implication is that tax rates could be increased to generate more tax revenue. Steinmüller et al. suggest that tax competition accounts for a reluctance to do so.

The second empirical application involves estimating the responsiveness of investment in fixed assets to the three effective tax rates (STR, EMTR, EATR) and to the NPV, as well as to various control variables that affect investment. Separate equations are estimated for the EMTR and the EATR, and for the STR and NPV combined. In each case, the effective tax rate has a negative effect on investment that is, statistically, highly significant. The NPV has a weakly significant positive effect. The elasticities of investment with respect to each of the effective tax rates are comparable and are in the range of -0.33 to -0.4 —relatively large elasticities. The elasticity of investment with respect to the NPV is about 0.90.

Overall, this paper represents one of the most detailed studies to date of international effective corporate tax rates and their effect on tax revenues and investment.

It confirms that these effects are substantial, and it reflect the constraints that policy makers face in choosing tax policies.

R.B.

Assaf Likhovski, *Tax Law and Social Norms in Mandatory Palestine and Israel* (Cambridge, UK: Cambridge University Press, 2017), 335 pages

In an era of growing interest in tax collection and enforcement, Likhovski's comparative and historical reflection on that topic, in the context of Mandatory Palestine and Israel, may be of some interest. Likhovski documents the changing attitudes toward the payment of taxes through the Ottoman, Mandatory Palestine, and Israeli regimes. Although these regimes once benefited from a kind of intimacy with citizens, which facilitated largely voluntary financial transfers to the state, the social and economic change of the 1960s brought a need to replace voluntarism with compliance measures that were, increasingly, legally enforced. Concurrent with this change was the rise of the tax profession, which saw its role not as assisting citizens in their civil duty to yield income to the state but, instead, as facilitating the reduction of tax obligations. This book is an enjoyable read, in part because of Likhovski's willingness to reach beyond conventional legislative and judicial sources. He adds depth to the tax-collection story by offering references to the film and literature of the relevant eras.

K.B.

Mick Moore, Wilson Prichard, and Odd-Helge Fjeldstad, *Taxing Africa: Coercion, Reform and Development* (London: Zed Books, 2018), 276 pages

The International Centre for Tax and Development (ICTD) was established in 2010. It produces research on a variety of tax-related subjects of interest to scholars, practitioners, and policy makers who care about the role that taxation plays in advancing pro-poor economic growth and good governance.

In *Taxing Africa*, Mick Moore, Wilson Prichard, and Odd-Helge Fjeldstad pull together and elaborate on insights from the growing body of research inspired by the ICTD. The book is written for the non-technician. Its nine chapters delve into a range of current tax dilemmas and situate those dilemmas in the local specificities of Africa (if a continent can have local specificities). Of particular interest for technical tax specialists are chapter 4, which focuses on international tax challenges (from an African perspective); chapter 5, which turns to the challenges of taxing the extractives industry; and chapters 6 and 7, which address taxation issues in federated states.

Throughout the book, the authors elaborate on six themes. First, they emphasize the considerable variety of Africans' experience with tax systems. Although some large taxpayers (including multinationals) engage with corporate, personal, and value-added tax systems that are comparable with the systems of countries on other continents, many taxpayers engage only with levies that the authors term "informal

taxes.” These informal taxes are collected in person by tax collectors and are often connected with local governments instead of central ones. The authors distinguish this world of informal tax collection, labelling it “small taxes,” and they note that it merits separate and substantial study—study that has often been lacking.

Second, the authors draw attention to the increasing significance of fairness discussions in Africa. These discussions centre on the tax mix that best achieves national distributive goals. Supranational organizations, such as the International Monetary Fund, have been focused on value-added taxes for some time, and the authors note (with approval) that greater attention is being paid to property taxes. They push for studies that go beyond the theoretical incidence of taxes to provide a better understanding of who actually pays which taxes. For example, a highly progressive income tax that is evaded by the wealthy may not, in fact, be a progressive tax in practice.

Third, the authors agonize about how African governments should respond to international tax pressures, including tax havens and illicit financial flows. They caution African ministries of finance to be skeptical of lobbyists, and they focus considerable analysis on the extractives industry.

Fourth, the challenge of tax reform looms large as a theme of this book. In that respect, the authors join a long list of others who have attempted to understand the relationship between tax collection, tax morale, public spending, and tax technologies. They label as dysfunctional many of the relationships between central and local governments in Africa.

Fifth, on a related theme, the authors underscore the need for accountability in the quest for more effective taxation in Africa. Like Vito Tanzi, the authors acknowledge the increasing pressure on African states that has resulted from initiatives, such as the United Nations’ Sustainable Development Goals, to raise revenue from taxation, and they warn that, without a viable plan for how that revenue will be used to increase public goods (including that of a more effective public sector), the aspirations to improve the quality of life in Africa will not be realized.

Finally, the authors argue that taxation in Africa must be understood in its historical context. In particular, the imposition of tax laws derived from outside the African context hampers the effectiveness of taxation in Africa. On this point, however, the authors find reason for optimism in the rise of civil-society organizations in Africa and in the creation of the African Tax Administration Forum.

K.B.

Daniel Halliday, *The Inheritance of Wealth: Justice, Equality, and the Right To Bequeath* (Oxford: Oxford University Press, 2018), 235 pages

Growing concerns about income inequality, along with less prevalent (but, presumably, even more urgent) concerns about wealth inequality, justify spending some time with Daniel Halliday’s excellent and highly readable contribution to the literature. In this book, Halliday concerns himself with exploring the political philosophies that support the individual right to transfer wealth and with those

philosophies that would favour the constriction of this right. His aim is to assess whether inherited wealth limits social justice. Ultimately, he concludes that some kinds of inherited wealth (for example, multigenerational transfers) are more justice-infringing than others (for example, first-generation transfers).

Halliday identifies a number of harms that flow from inherited wealth, but he focuses most attention on the “egalitarian complaint . . . that [inherited wealth] helps keep the life prospects of individuals unjustly dependent on being born into families that possess substantial wealth.”¹⁴

Most of the book is devoted to the explication of the various justificatory theories supporting equality and of the harms created by deep wealth inequality. The theories that he considers include early liberal theories (chapter 2), classic utilitarian theories (chapter 3), and libertarian theories (chapter 6). Halliday also dedicates chapters to the relationship between inheritance and luck (chapter 4), the harm of economic segregation (chapter 5), and the compounding effect of such segregation when it spans multiple generations (chapter 6). He presents these middle chapters as connected to contemporary egalitarian views.

Halliday’s analysis of the interaction of tax as an instrument for reducing wealth inequality, with its harmful segregatory consequences, is concentrated in chapter 8. In this final chapter, he draws substantially on the Italian theorist, Eugenio Rignano, who argued that inheritance taxes should be more significant when the inheritance is rolled over more than once. Simplified, the underlying theory is that the availability of wealth through multiple generations creates the possibility for parents (and grandparents) to create informal (and in some cases formal, depending on the timing of the wealth transfer) conditions of social segregation early in the lives of their children. (Single-generation transfers, by comparison, come too late in the lives of the children-inheritors to result in changes to these children’s social clustering.) In addition, single-generation transfers may actually facilitate the dispersion of wealth and ensure a robust middle class, justifying a reduced tax rate on those transfers. Halliday does not offer a precise description of the kind of tax system that he imagines, and therefore no “off-the-shelf” solution is offered to policy makers here. However, he does invite readers into a more than unusually textured and morally grounded discussion of inheritance taxes, and his book may serve as a springboard for governments that are interested in thinking through how they can respond to growing public concerns about wealth inequality. Ultimately, Halliday’s work as a political theorist is a welcome contribution to the literature on wealth inequality (and on what might be done about it), popularized by economists such as Piketty.

K.B.

14 At 4.

Elliott Ash and Omri Marian, *The Making of International Tax Law: Empirical Evidence from Natural Language Processing*, UC Irvine School of Law Legal Studies Research Paper no. 2019-02 (Irvine, CA: University of California, Irvine School of Law, 2019), 46 pages (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3314310)

The era of “big data” tax scholarship has not arrived, but this article proclaims its approach. Ash and Marian use natural-language processing to offer insights into the international tax consensus as it is reflected in the text of income tax treaties. Their data set comprises 4,052 bilateral tax treaties, as well as the model treaties promulgated by the Organisation for Economic Co-operation and Development (OECD), the United Nations (UN), and the United States; and seven other models.

The article takes as its inspiration Reuven Avi-Yonah’s claim that international tax has become a form of international law. Ash and Marian’s task was to assess the trends in tax treaty negotiation in order to assess whether those instruments are becoming increasingly harmonized. Presumably, to the extent that such harmonization is occurring, the claim that international tax is international law (and that states therefore have limited ability to “go it alone”) is strengthened.

The article addresses three questions: (1) Is there an increase in the textual consensus among bilateral tax treaties? (2) Are there some articles on which tax treaty negotiators are more aligned than others? (3) Which of the available models has the most influence on the drafting of tax treaties?

It seems a shame to spoil the surprise of the article. The authors find that the similarity among treaties increased between 1970 and 2010 and decreased slightly after 2010. The increase between 1970 and 2010 was not simply the result of increased similarity in language (a controlled factor); rather, it was a result of the fact that, over time, some articles (those concerned with intercompany pricing, taxation of cross-border business income, and mutual agreement procedures) become more similar while others (those concerned with assistance in collection) do not. In answer to the question of which model treaties seem most influential, the authors identify the OECD as playing a leading role: treaties concluded after a new OECD model is released follow the language in the new model. Interestingly, however, the authors find that the UN model has become increasingly influential in recent years—including as an influence on the language of the OECD model. They suggest that the UN influence on the OECD model might be explained by an increased willingness, in the international context, to allocate taxing rights to the source state. Ultimately, the authors conclude that their analysis aligns with the view that the international tax consensus is growing.

K.B.

International Monetary Fund, “Upgrading the Tax System To Boost Productivity,” *IMF Fiscal Monitor: Achieving More with Less*, April 2017, 45-91 (www.imf.org/en/Publications/FM/Issues/2017/04/06/fiscal-monitor-april-2017)

This paper is a chapter in a broader study that addresses recent productivity issues. The paper focuses on how the corporate tax system can reduce a nation’s productivity by causing resources to be misallocated from more productive to less productive activities within given industries. It adopts an innovative empirical approach to identifying the sources of low productivity, and it offers some well-worn advice on how to address the issues.

The paper begins by documenting the remarkable decline in the growth of total factor productivity (TFP) since the 2008 financial crisis, especially in emerging-market and developing economies but also, to a less dramatic extent, in advanced ones. It then uses firm-level data to estimate the extent to which resource misallocation across activities within economies accounts for low productivity. The paper argues that, except in the case of new firms, a positive relationship ought to exist between firm size and productivity, and that this positive relationship will be weakened by market distortions.

To provide an empirical estimate of the consequences of such distortions, the paper calculates “revenue productivity” levels by firm, where revenue productivity is the product of physical productivity and output price. For firms in a given industry, the pattern of the dispersion of revenue productivity gives an indication of potential resource misallocations. The paper finds that, for many manufacturing and service industries, there is a wide dispersion of revenue productivities among firms, with a small number of high-productivity firms co-existing with a large number of low-productivity ones. It is estimated that, for advanced economies, the TFP gains from equalizing revenue productivity among firms is on the order of 16 percent for manufacturing industries. The gain is even higher for service industries and for emerging and developing economies. In the long term, this translates into a higher growth rate of 0.7 percent in advanced economies, 1.3 percent for emerging-market economies, and 0.9 percent for developing economies.

Next, the paper illustrates the various ways in which tax policy and tax administration can influence the allocation of resources among firms and thereby influence TFP. Tax policy effects are reflected in the differences in EMTRs by capital asset type, by source of financing, by size of firm, and by degree of informality, particularly in developing countries. Each of these factors can be relevant for firms in the same industry. Larger differences in the EMTR for machinery as compared with buildings lead to lower resource-allocation efficiency in machine-intensive industries, and they cause underinvestment in machinery. Similarly, corporate debt bias, measured by the EMTR on equity minus the EMTR on debt, results in lower resource-allocation efficiency in research-and-development-intensive industries, which tend to rely more on debt finance. Distortions caused by tax disparities and by debt bias can both be eliminated by a cash-flow tax or by a system with an allowance for corporate equity.

Preferential tax treatment of small as opposed to large firms compromises productivity by limiting firm growth. This occurs if the tax preferences are capped by some eligibility threshold regardless of the age of the firm. The paper points to evidence that suggests that the potential TFP gain from eliminating size-related tax incentives is 0.8 to 2.9 percent. It argues that preferential tax treatment should target new firms rather than small ones.

A final source of resource misallocation is the one between formal and informal firms. Given that the latter are non-compliant with taxes, they are preferentially treated and are able to stay in business despite being less profitable than tax-compliant (formal sector) firms. Evidence suggests that this can be a significant source of production inefficiency in emerging-market and developing economies—a problem that can best be addressed by improving the tax administration.

The evidence presented in this paper about the inefficiency effects of tax distortions is international, and it is especially strong in respect of lower-income countries. Some of it rings true for Canada as well.

R.B.