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Understanding the tax implications of Registered Retirement Savings Plans

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A Registered Retirement Savings Plan (RRSP) is a tax-deductible savings vehicle designed to encourage people to save for their retirement. Contributions are made with pre-tax income, and taxation is deferred to the time when funds are withdrawn, typically in retirement when marginal tax rates are otherwise low, resulting in tax savings over the life cycle (Veall, 2001). However, RRSP funds do not lock in and there are no early withdrawal penalties by the tax system, which means pre-retirement withdrawals are frequent. On balance, $1 is withdrawn each year for every $5 saved among working-aged tax filers (Messacar, 2017).

This prevalence of pre-retirement RRSP withdrawals raises the question of what reasons, aside from retirement planning, lead people to use these plans.

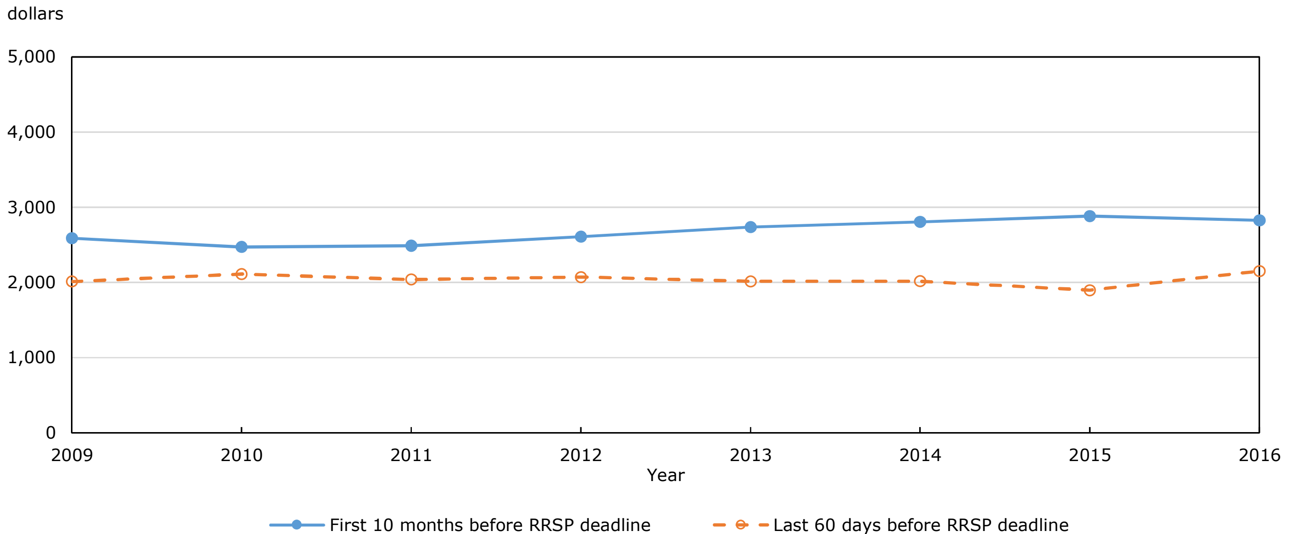
To explore this issue, new research by Statistics Canada and the Retirement and Savings Institute (RSI) at HEC Montréal considers how a person's financial literacy affects the timing of contributions to and withdrawals from RRSPs. Financial literacy may be a proxy for the extent to which tax filers understand the tax implications of these plans.

The analysis uses a new dataset linking T1 tax records from 2000 to 2016 with data from Statistics Canada's 2014 Canadian Financial Capability Survey (CFCS). The CFCS provides information about how Canadians understand their financial situation, the financial services available to them and their plans for the future. It also includes a unique measure of each respondent's level of financial literacy based on the number of correct answers to a series of financial questions. This linked dataset is the first in Canada to combine longitudinal information on RRSP usage from tax records with a direct measure of financial competence.

To explore what motivates tax filers to contribute to RRSPs, the timing of their saving during the year was assessed. Contributions to RRSPs during the first 60 days of a calendar year may be used as deductions on income earned in the previous year to reduce final tax balances owed to the Canada Revenue Agency (CRA).

This program design encourages many tax filers to save in RRSPs as the RRSP deadline approaches. Specifically, tax filers are equally likely to save during the last 60 days before the deadline as they were during the preceding 10 months. The average amount of $2,000 saved during the last 60 days totals two-thirds of the average amount saved during the preceding 10 months (Chart 1). Therefore, the timing of when contributions are made during the year is unbalanced.

Chart 1
Average contributions to a Registered Retirement Savings Plan (RRSPs), by time period relative to the RRSP deadline

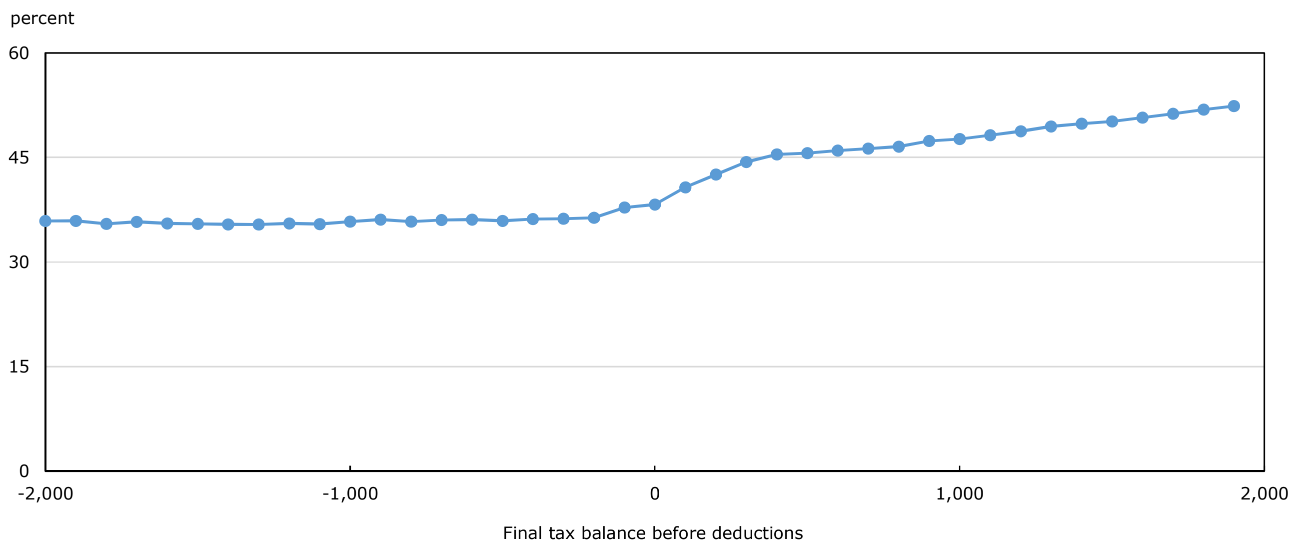


Source: Statistics Canada, Financial Capability, Employment and Income Database.

This behaviour likely arises in part because tax filers use RRSPs to push final balances down to zero. The change in final balances does not necessarily imply tax savings, but rather shifts tax payments into the future if funds are withdrawn before retirement, when marginal tax rates are still high.

The findings suggest that each $100 owed to the CRA during tax season increases the likelihood of a contribution being made to an RRSP by about 0.5 percentage points (about 1.5% relative to the base), where roughly 30% of tax filers contribute to an RRSP each year (Chart 2). In contrast, for tax filers who receive a refund, the final balance has no significant effect on the likelihood of contributing to an RRSP.

Chart 2
Probability of contributing to a Registered Retirement Savings Plan, by amount of final tax balance before deductions



Source: Statistics Canada, Financial Capability, Employment and Income Database.

The decision to manipulate final balances to be zero is consistent with a psychological phenomenon called "loss aversion" (Rees-Jones, 2018). Loss aversion refers to a disproportionate tendency to prefer avoiding losses over acquiring equivalent gains. There is evidence that this behaviour occurs primarily among tax filers with low financial literacy and during the final 60 days before the RRSP deadline. These findings suggest that annual tax planning, rather than retirement planning, is a significant determinant of RRSP use for some tax filers.

To explore how the tax system encourages savers to keep their funds intact within RRSPs rather than to withdraw for consumption, the relationship between withdrawal behaviour and the marginal effective tax rate (METR) is assessed. The METR refers to the combination of statutory income tax rates and indirect effects of the tax and transfer system, such as employment insurance premiums or child benefits.

While there are no explicit tax penalties on pre-retirement RRSP withdrawals, the amount of tax advantage offered by these plans largely depends on the METR at the time of withdrawal relative to the METR at the time of contribution. As the tax rate at the time of withdrawal increases, savers are expected to become less likely to pull their funds out of the RRSP since the amount of tax paid on each withdrawal also increases.

The results of this analysis are consistent with expectations.

More precisely, a 10% increase in the METR decreases the amount withdrawn from RRSPs by about $70 for tax filers with low financial literacy, but by about $230 for those with high financial literacy, on average. These findings suggest that the tax code is a relevant determinant of wealth accumulation in RRSPs, and that the effect is most significant among those who are the most likely to understand the tax regulations governing these plans.

Taken together, the findings from this research indicate that financial literacy affects the extent to which RRSPs are used optimally. In particular, some tax filers with low financial literacy use these plans for reasons other than long-term retirement planning. This is important for how retirement income systems are designed, since those with low financial literacy also tend to have lower incomes and may be the most in need of help preparing financially for their retirement.

The full report on RRSP contributions and final tax balances, titled "Loss-averse tax manipulation and tax-preferred savings", was recently released as an RSI Working Paper (no. 8). The full report on the relationship between RRSP withdrawals and tax rates, titled "Financial literacy and the timing of tax-preferred savings account withdrawals," is forthcoming in the *Journal of Accounting and Public Policy*.

Authors

Derek Messacar is with the Social Analysis and Modelling Division, Analytical Studies and Modelling Branch, Statistics Canada, Ottawa. Pierre-Carl Michaud is a Professor of Applied Economics, Director of the Retirement and Savings Institute, and Research Chair in Intergenerational Economics at HEC Montréal. Marianne Laurin is a Research Associate of the Retirement and Savings Institute at HEC Montréal.

References

Laurin, M., Messacar, D., and Michaud, P.-C. (2021). Financial literacy and the timing of tax-preferred savings account withdrawals. *Journal of Accounting and Public Policy*. https://doi.org/10.1016/j.jaccpubpol.2021.106922.

Messacar, D. (2017). *Trends in RRSP contributions and pre-retirement withdrawals, 2000 to 2013*. (Economic Insights, No. 64). Statistics Canada.

Rees-Jones, A. (2018). Quantifying loss-averse tax manipulation. *Review of Economic Studies 85*(2): 1251–1278.

Veall, M. (2001). Did the tax flattening affect RRSP contributions? *Canadian Journal of Economics 34*(4): 120–131.