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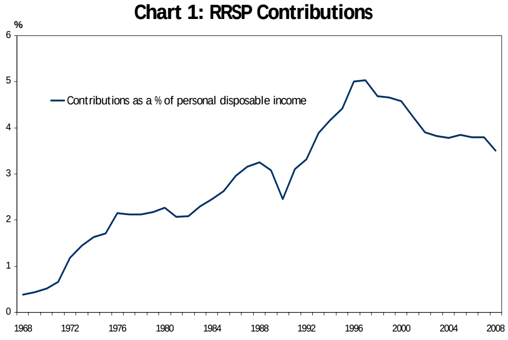
Chart 1: RRSP Contributions



Source: Statistics Canada, RBC Economics Research

CURRENT ANALYSIS

January 2010

RRSP contributions 1968 to 2008[1]… and beyond to 2020

Summary

This study of Registered Retirement Savings Plans (RRSPs) in Canada over the past forty years finds that RRSP contributions as a share of income have declined over the past eleven years after steadily rising to a peak in 1997. The analysis suggests demographic factors and related distinct savings patterns among various age cohorts are the main drivers of both the run-up in RRSP contributions prior to 1997 and the drop off seen since. As the aging of the population becomes more pronounced over the next decade, particularly with respect to the baby boom generation, this research suggests that RRSP contributions will likely continue to trend lower over the next decade.

The fall-off in contributions has raised concerns among public policy analysts that Canadians may not be adequately saving for their retirement. While this has not been proven in this analysis, a falloff in savings does have a clearly negative impact for the overall economy. Decreased savings means fewer funds available domestically to finance investment activity. This may be reason enough for policy makers to try and encourage the various age cohorts to increase savings going forward. Such could be achieved through policies that enhance the current RRSP program such as raising contribution limits or extending the age by which RRSPs need to be cashed out. Alternatively, policy could be directed toward enhancing other saving vehicles such as raising the annual contribution limits of the newly introduced tax free savings accounts (TFSAs).

Analysis

A graph of RRSP contributions as a percent of personal disposable income (PDI) from the late 1960's (see chart 1) shows a steady upward trend for three decades. Then, from the late 1990's, contributions have trended lower through 2008. This paper will examine the factors behind the break in this trend. One of the key findings is the important role played by demographic factors and that each age cohort has shown a distinct savings pattern over the past forty years. The paper concludes that these demographic factors will likely result in RRSP contributions continuing to trend lower as a percent of income over the next ten years as a growing number of the baby boom generation[2] retires and thus starts to reduce RRSP contributions. This conclusion is premised on unchanged savings behaviour among the various age cohorts.

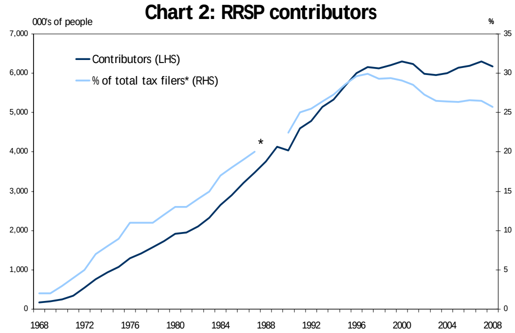


Chart 2: RRSP contributors

*Total number of taxfilers for 1988 and 1989 were unavailable at the time of this study and as such a gap exists in the data
Source: Statistics Canada, RBC Economics Research

Registered retirement savings plans (RRSPs) were introduced in Canada in 1957 when the Federal government amended the *Income Tax Act* to permit individuals to shelter financial assets, intended to be used for future retirement income, from income taxes. This allowed individuals to receive the tax advantages already enjoyed by members of registered employer-sponsored pension plans (RPPs). Participants in RRSPs were allowed to annually contribute 10% of earned income up to $2,500 ($19,300 in 2008 dollars). RPP participants were allowed to contribute 10% of earned income as well though to a lower maximum of $1,500 ($11,600 in 2008 dollars) reflecting pension contributions made by the employer on the employee's behalf.

The proportion of RRSP contributions relative to PDI grew steadily from the late 1960's to the late 1990's, with the rate increasing from 0.3% in 1968 to 5.0% in 1997. However, since 1997, there has been a decidedly downward trend in this RRSP savings rate as total contributions represented only 3.5% of PDI in 2008.

Factors affecting RRSP contributions

i) Demographics

The number of contributors in RRSPs increased dramatically in the early years of the program due to the "greater individual awareness of the need to save for retirement, an increased desire to maximize use of tax shelter opportunities, and a response by taxfilers to the annual advertising campaigns by financial institutions."[3]

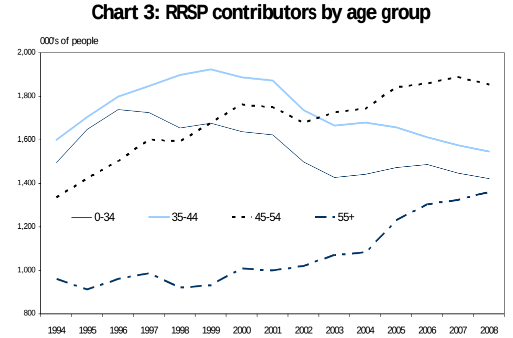


Chart 3: RRSP contributors by age group

Source: Statistics Canada, RBC Economics Research

The number of contributors increased from 172,000 (roughly 2% of all tax filers) in 1968 (the first year for which data is available on number of contributors) to 1.7 million in 1979 (12% of all tax filers), and peaked at 6.2 million (30% of all tax filers) in 1997 (see chart 2). The one break in this upward trend (through to the 1997 peak) came in 1990, which coincided with an economic recession in Canada. This break saw the number of contributors fall by roughly 100,000 compared to the previous year.

The turn of this century has seen the number of contributors essentially remain constant, while the participation rate has fallen to 26% of all tax filers through 2008. Chart 3 shows RRSP contributors by various age cohorts and suggests that an important factor driving this structural change in RRSP contributions could be demographics (the chart starts only in 1994 reflecting the earliest availability of the data by age cohort). It shows a downward trend in the number of contributors among the 0-34 and 35-44 age groups that coincides with the timing of the general downward trend in contributions. To illustrate this point, chart 4 depicts the Canadian population by age group. It shows the aging of the baby boom generation as that generation moves through the older age categories (population numbers beyond 2008 reflect projections done by Statistics Canada).

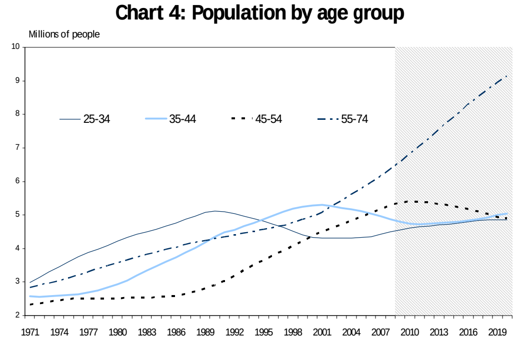
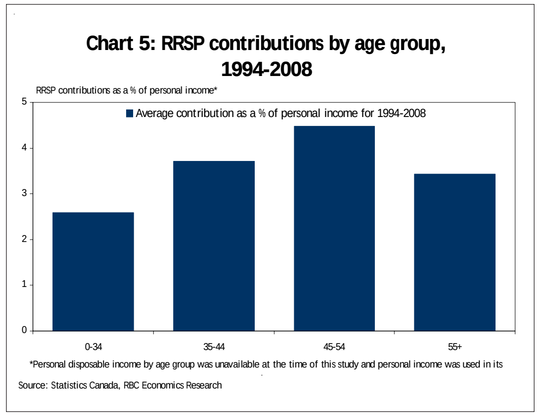


Chart 4: Population by age group

Source: Statistics Canada, RBC Economics Research

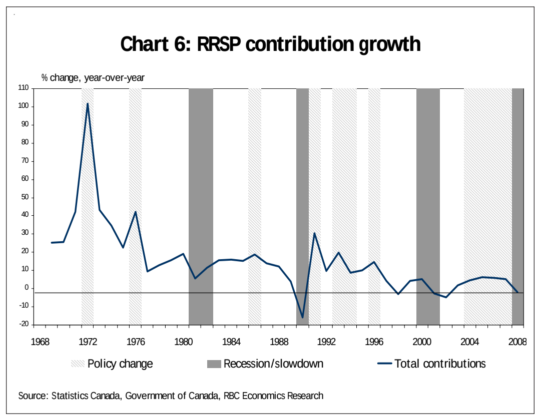
These demographic trends have been overlaid by very distinct RRSP contributions by age cohorts, as shown in chart 5. At least a part of the rapid run-up in RRSP contributions over the 1980s and through the early 1990s could be explained by the entrance of the baby boomers into the 35-44 age category and an accompanying large marginal increase in RRSP contributions. As the baby boomers began to pass through that age category, the marginal increase in saving fell, leading to a flattening of total contributions.

Growth of the population aged 35-44 slowed in the late 1990s, peaking in 2001 before declining through the remainder of the current decade. Part of the reason why RRSP contributions have not declined along with this population cohort is that baby boomers exited the 35-44 age cohort and entered the relatively higher-saving 45-54 age cohort. The marginal increase in saving from the 35-44 to the 45-54 age cohort is smaller than the marginal increase from the under-35 to the 35-44 age cohort which has resulted in a more gradual increase in RRSP contributions this decade. The population in the 45-54 age cohort is expected to peak in 2011. Because household RRSP contributions have historically tended to fall after age 55, as shown in chart 5, it is possible that we could actually see a decline in total real RRSP contributions over the next decade.



ii) RRSP contribution limits

There have been a number of modifications to the RRSP program since its introduction in 1957. Most of these changes have been in the form of increased RRSP contribution limits, both as a percent of earned income and as an increase in the maximum allowable deduction. With the RRSP program's introduction, the Federal government set restrictions on the maximum amount allowable in the tax-sheltered savings vehicle at 10% of earned income to a maximum of $2,500 for non-RPP participants and 10% of earned income up to a maximum of $1,500 for RPP participants. In 1972, the maximum allowable contribution was increased to the lower of 20% of income or $4,000 ($2,500 for RPP participants). This contributed to total RRSP contributions increasing by 102% y/y for the year (contributions-to-PDI ratio increased by 77%). Similar spikes in contributions coincided with increases in contribution limits in 1976 and 1986 (see chart 6).



In 1991, the Federal government implemented new rules in order to standardize the tax treatment of all private retirement programs and changed the maximum allowable contribution to the lower of 18% of earned income or $11,500. This change was accompanied by a 30.5% increase in total RRSP contributions in the year. Further limit increases in 1993 and a significant policy change in 1996 which eliminated the seven-year limit on carry-forwards of unused contribution room also coincided with significant increases in contributions. Subsequent policy changes, however, have not had the same impact in stimulating savings (see chart 6). A list of changes and proposed changes to contribution limits and other RRSP related policy can be seen in Appendix 1. Beginning in 2011, the maximum contribution limit on RRSPs will be indexed to the annual increase in the average wage.

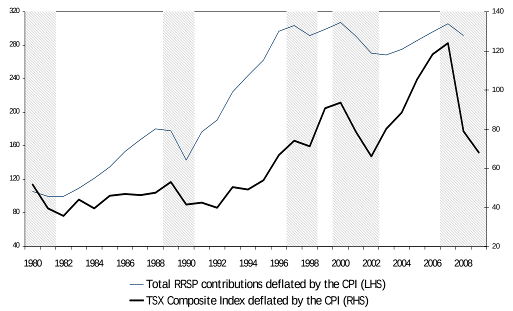
iii) Personal income

An increase in income will tend to increase both current consumption and saving so it is not surprising that periods of economic slowdown/recession cause declines in the pace of growth in RRSP contributions. For example, the recession of the 1990's saw a decrease in total contributions by 16% in 1990 (see chart 6). The economic slowdown of the early 2000's and the current recession also saw a declines in contributions.

iv) Equity market returns

Chart 7 shows the level of total RRSP contributions in Canada deflated by the CPI and the level of the TSX Composite Index, also deflated by the CPI. Each period during which the level of real RRSP contributions fell since 1980 is associated with a decline in the deflated level of the TSX Composite Index. This suggests that as household wealth deteriorates, individuals contribute less towards their RRSP. The opposite is true when the TSX rises.

Chart 7: RRSP contributions & the TSX Composite Index (inflation adjusted)



Source: Statistics Canada, Haver Analytics, RBC Economics Research

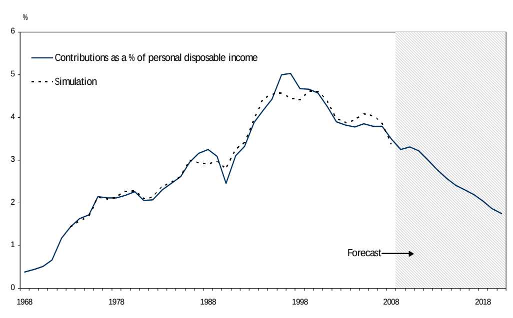
Modelling RRSP Contributions to 2020

We developed a basic model using an ordinary least squares (OLS) approach in an error correction framework for RRSP contributions in Canada. This model not only allows for the testing of the significance of demographic and other factors cited above but also provides a means to project forward future contributions. (A version of this report including a more complete discussion of the model specification is available upon request.)

The Model

The model does a good job explaining history as chart 8 indicates. There is a relatively good fit between simulated and actual variables. This chart also includes a projection going forward. The run-up in RRSP contributions as a share of income through the 1980s and early 1990s appears to have been mainly due to the baby-boomers entering their peak saving years, along with rising income growth, relatively strong real stock market gains and a small boost from policy. Historically, short-run declines in RRSP contributions appear to have been driven by falling stock markets, specifically short-run stock market declines in the 1980s, 1990s and early this decade.

Chart 8: RRSP contributions



Source: Statistics Canada, RBC Economics Research

Projections

The projections suggest that the declining trend in the ratio of total RRSP contributions to disposable income that began in 1998 will continue through 2020 (see chart 8). In the near term, downward pressure in 2009 is expected to reflect declining stock markets and slowing income growth associated with the economic slowdown. Some offset is expected in 2010 as stock markets recover and income growth accelerates, however in 2011 the population of the highest saving age cohort, the 45-54 year olds, is expected to peak and then decline through 2020, repeating the pattern of declines in the 35-44 category that has occurred since the mid 1990s. This decline in the highest saving age cohort causes total RRSP contributions to fall through 2020, eventually approaching a share of disposable income that is comparable to that last seen in the 1970s.

One of the big caveats when working with the model presented is that it assumes that a given age cohort behaves in the same manner as in past generations (i.e., that post baby-boom 35-44 year olds will behave in the same manner as baby boom 35-44 year olds.) It could be the case that, in the wake of the recent financial market crisis, the post-boom generation boosts RRSP contributions enough to offset part of the projected decline in total contributions. Also, an increase in life expectancies could drive the baby boom and post boom generations to save more and for longer than their predecessors. However, if current age cohorts behave similarly to their predecessors, we would expect to see a decline in RRSP contributions as a share of personal disposable income over the coming decade.

[1] Data related to RRSP contributions was not collected until 1968 despite the program being first introduced in 1957.

[2] The baby boom generation represents those individuals born between the years 1947 to 1966. In 2008, this age cohort represented a significant 30% of the total population.

[3] Frenken, H. "RRSPs: tax-assisted retirement savings."***Perspectives on labour and income***, Quarterly Catalogue 75-001E, Winter 1990. Ottawa: Statistics Canada, pp. 9-20.

Appendix I - Contribution limits

	RRSP Contribution Limits	
Year of Policy Change	**Individuals without RPPs**	**Individuals with RPPs**
1957	10% of earned income to a maximum of $2,500	10% of earned income to a maximum of $1,500
1972	20% of earned income to a maximum of $4,000	20% of earned income to a maximum of $2,500
1976	20% of earned income to a maximum of $5,500	20% of earned income to a maximum of $2,500
1986	20% of earned income to a maximum of $7,500	20% of earned income to a maximum of $3,500
1991	18% of earned income to a maximum of $11,500	18% of earned income to a maximum of $11,500-PA
1993	18% of earned income to a maximum of $12,500	18% of earned income to a maximum of $12,500-PA
1994	18% of earned income to a maximum of $13,500	18% of earned income to a maximum of $13,500-PA
2004	18% of earned income to a maximum of $14,500	18% of earned income to a maximum of $15,500-PA
2005	18% of earned income to a maximum of $16,500	18% of earned income to a maximum of $16,500-PA
2006	18% of earned income to a maximum of $18,000	18% of earned income to a maximum of $18,000-PA
2007	18% of earned income to a maximum of $19,000	18% of earned income to a maximum of $19,000-PA
2008	18% of earned income to a maximum of $20,000	18% of earned income to a maximum of $20,000-PA
2009	18% of earned income to a maximum of $21,000	18% of earned income to a maximum of $21,000-PA
2010	18% of earned income to a maximum of $22,000	18% of earned income to a maximum of $22,000-PA
2011	RRSP contribution limit will be indexed to the annual increase in the average wage	RRSP contribution limit will be indexed to the annual increase in the average wage

Notes & policy changes:

1 In 1966, taxfilers were allowed to transfer tax free retiring allowances and various types of pension income to RRSPs, within certain limits. These rollovers were not subject to taxfilers' standard deduction limits or RRSP room.

2 In 1974, taxfilers were permitted to make contributions subject to their standard deduction limits to an RRSP registered in their spouses' names and to claim these contributions on their own tax returns

3 In 1991, the federal government implemented new rules, standardizing the tax treatment of all private retirement programs

4 PA is the individual's Pension Adjustment, which reflects benefits from an employer-sponsored RPP. For individuals with a defined-contribution plan, PA is the sum of the employer and employee contributions. For a defined-benefit plan, an imputation is made, based on the details of the plan, to compute the PA.

5 In 1995, pension transfers to spousal RRSPs were disallowed

6 In 1996, the age limit for maturing RPPs and RRSPs was reduced from 71 to 69. Also, limits were placed on rollovers of retiring allowances

7 In 2007, the age limit for maturing RPPs and RRSPs was increased from 69 to 71.