Macroeconomic Aspects of Retirement Savings

April 2014

David A. Dodge and
Richard Dion,
Bennett Jones, LLP

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The adequacy of future retirement income to support individual target levels of consumption for Ontarians and Canadians is an important problem for both individuals and governments. Indeed, on average, Canadian workers are far from saving enough to support in retirement a standard of living that they would find satisfactory. Unless the economy generates higher labour productivity growth than is currently projected, governments in the future will be under great pressure to tax an almost static population of workers to support transfers to a very fast-growing population of elderly.

The big challenge then is how to provide for adequate retirement income for the future population of elderly people without imposing an undue burden of taxation on the working population and the business sector. Such an increased burden could only worsen the problem of generating enough wealth at the same time as being inequitable to the younger generations of workers. The solution to generate more retirement income and potential consumption in the future is to start now saving and investing more. A higher saving rate would underpin higher retirement income without increased tax rates on the working population, directly through larger accumulated household wealth and indirectly through supporting a higher investment rate in physical and other forms of capital, and hence higher productivity, larger investment income and increased government revenues.

In principle a higher investment rate could be financed by increased reliance on foreign saving but the experience of the last several decades tend to suggest that in the long run it is national savings that finances national investment in the advanced countries. Moreover, heavy reliance on foreign saving makes domestic investment more vulnerable to economic and financial shocks abroad. A higher saving rate by households and governments is therefore warranted in the longer run to support a higher investment rate by businesses and governments.

The initial impact of higher saving by households or reduction in operating deficits by governments is to reduce domestic demand somewhat in the short run.[1] But any temporary slowing of the economy could and should be partially offset by increased government borrowing on capital account to finance needed infrastructure and/or by easier monetary policy and/or exchange rate adjustment. Our flexible exchange rate system would allow a weaker exchange rate to stimulate exports and depress imports, thereby creating space for higher household saving without unduly slowing aggregate demand. In this context, an increase in household saving would exert a relatively small and short lived drag on the economy while its positive structural impact on growth would be long lived and could be relatively quite significant, but only manifest after a period of time.

Individual households exhibit a wide range of preferences to the desired level of income they wish to maintain in "later life". To the extent possible, general social welfare is probably better served by leaving the "savings decision" up to individual households. However, our current system of incentives for voluntary saving may need to be supplemented by some mandatory elements, especially for low-income households, in order to effectively enhance the level of household saving going forward.

Lower-income working households find it much harder to forego current consumption than higher-income households and will tend to under-save for their old age. Moreover, because the GIS claw back effectively imposes a very high rate of tax on retirement pensions (CPP, RPP and RRSP, but not TFSA), they have an incentive not to save through a RPP, RRSP or even the CPP.

[1] Efforts by the federal government in recent years to eliminate its budget deficit have reduced aggregate demand at a time when the economy has been operating below potential. This reduction was likely greater than the modest negative impact that an increase in household saving due to CPP enhancement, if implemented, would have.

Middle and higher-income workers face three problems: (1) they do not save enough throughout their working lives to provide a retirement income that would support a standard of living reasonably close to the one enjoyed during their working years; (2) most of them have difficulty accessing the most appropriate vehicles to provide higher net returns on their savings; and (3) for most of them at retirement, the lack of access to actuarially fair group annuity rates on their accumulated retirement saving will mean that the great bulk of their (inadequate) retirement income will be insecure. It is in the context of concerns about both the adequacy of current household savings and the lack of access to the most efficient savings vehicles that the current debate over CPP enhancement is taking place. An enhanced CPP or Ontario add-on (with contributions set at actuarially fair rates) would represent a retirement savings vehicle that is superior to many corporate defined-benefit (DB) plans and group or individual savings vehicles.

An enhanced CPP (or Ontario add-on) can only partly meet the needs for increased savings for retirement by younger current members and future members of the labour force. For many middle and upper income workers improvements to voluntary savings options (such as Pooled Registered Pension Plans (PRPPs) or shared-risk single-employer plans) are essential and require modernized legislative and regulatory provisions to be most effective. It is also important for Ontario to develop legislation to facilitate the provision of hybrid employer-based pension plans.

The phased-in implementation beginning in a couple of years of some form of CPP enhancement such as proposed recently would lead to higher household saving. It is likely that the modest reduction in aggregate demand that this increased saving would induce would be appropriate in view of the fact that the Canadian economy most likely will be operating at or above capacity by that time.

Analysis leads us to the following conclusions for Ontario:

1. In order to prepare for the downturn in the labour force participation rate (LFPR) as Ontario's population ages, an increase in labour and total factor productivity growth is very important in order to reduce the burden of direct transfers from the working population to retirees.

2. To postpone the decline in the LFPR until measures to increase saving and productivity have an impact, measures to strengthen the attachment to the labour force for those that have reached the age of retirement should be considered.

3. To finance the productivity-enhancing domestic investment in infrastructure, plant and equipment and human capital, domestic savings need to increase. In particular, household savings of the working population need to be raised quickly and sustained for at least a couple of decades.

4. An increase in household saving will have a negative effect on aggregate demand in the very short run, an effect which will automatically be offset in part through the exchange rate and other structural adjustments and which should be partially offset by an easier monetary policy and/or increase in public sector or agency borrowing to finance infrastructure investment. In the longer run, higher household saving would enhance growth of output and incomes.

5. An increase in future CPP pensions financed by an increase in actuarially appropriate CPP premiums starting in the near future would be an efficient measure to increase household saving and to provide for higher retirement incomes.

6. At the same time, regulatory and legislative measures to facilitate the creation/expansion of shared risk (hybrid) employer or group pension plans need to be considered.

7. While it is important for governments (Ontario and Federal) to balance or run some surpluses on their operating accounts over the cycle (i.e. be net savers on operations), to finance the infrastructure necessary to support growth and productivity it is appropriate at the present time for governments (or their agents) to be net borrowers on capital account.

I. INTRODUCTION

The adequacy of future retirement income to support individual target levels of consumption for Ontarians and Canadians more generally is an important problem for both individuals and governments. Indeed, all the information available indicate that on average Canadian workers are far from saving enough to support in retirement a standard of living that they would find satisfactory. The pressure on governments to financially support an increasing share of the population in retirement through direct and indirect transfers financed by taxing a slower-growing labour force will inevitably rise unless the economy generates more wealth and saving per capita than is currently the case. The adequacy of future retirement income is also a pressing problem because the more the working population and governments delay the implementation of plans to save more and build up more wealth in order to generate more future income, the more difficult it will be to do so since the share of the total population in the labour force will shrink over the next decades.

The big challenge then is how to provide for adequate retirement income for our population without imposing an undue burden of taxation on the working population and the business sector. Such an increased burden could only worsen the problem of generating enough wealth at the same time as being inequitable to the younger generations of workers. There is no free lunch. The solution to generate more retirement income and potential consumption in the future is to consume less and invest more starting now. A higher saving rate would underpin higher retirement income without increased tax rates on the working population, directly through larger accumulated household wealth and indirectly through supporting a higher investment rate in physical and other forms of capital, and hence higher productivity, larger investment income and government revenues.

In principle a higher investment rate could be financed by an increased reliance on foreign saving but the experience of the last several decades suggests that in the long run it is national savings that finances national investment in the advanced countries. Moreover, heavy reliance on foreign saving makes domestic investment more vulnerable to economic and financial shocks abroad. A higher saving rate by households and governments is therefore warranted to support a higher investment rate by businesses and governments.

Governments have already taken elaborate measures to compress their consumption (operational) spending relative to their revenues in order to achieve balanced budgets in the short to medium term. Moreover, there are pressures on them to increase their investment in infrastructure in order to enhance productivity and income growth in the private sector. The big question then is how households could be induced to increase their saving rate in order to enhance their future retirement income both directly and indirectly. Their incentive to save for retirement depends on many factors, some of them highly uncertain: the standard of living they target in retirement, the expected number of years in retirement, the number of years before retirement, the level of income at work, the risks and returns on investments, which partly depend on the pension investment vehicle, and expected direct transfers in old age. At the risk of simplifying, the incentive to save for retirement would be highest for the high-income groups and lowest for the younger groups and low-income groups, the latter because of the claw back provisions of transfers. Enhancement of Canada Pension Plan would provide a vehicle for raising retirement income, particularly for middle-income groups, in an efficient and assured way. There would be short-term costs to CPP enhancement in terms of marginally slower economic growth but these costs would be small relative to the longer-run benefits of more adequate retirement income and higher potential output and consumption.

The bulk of this document discusses the issues above relating to the incentives for retirement saving and vehicles for enhanced retirement income. Before turning to these questions, however, it seems warranted to prepare the ground by first providing in the second section an overview of the sources of income and their relative importance for the 65+ of age in Ontario, a key component of the retired population, and then sketching in the third section the recent evolution of Canadian saving and investment by sector, thereby putting household saving and investment in a macroeconomic perspective. A final section provides concluding observations.

II. SAVING FOR OUR COLLECTIVE OLD AGE

In most simple economic terms, those in the labour force consume fewer goods and services than they collectively produce and transfer some of their production to both the old (retired) and young (children) non-producing population. When the fraction of the total population that is working is large relative to the non-working population, workers have to give up a smaller fraction of their output to support children and the elderly than is the case when the working population is small relative to the non-working population. In our modern complex economy, the question becomes: what are the mechanisms by which the retired elderly can obtain financial resources to support their consumption? As implied by Table 1 below, which displays the sources of income for the 65+ of age in Ontario, there are fundamentally two mechanisms: A) Direct transfers and B) Savings and investments.

Not all the elderly population is retired. The more the 65+ of age remain in or rejoin the labour force, the more employment income would support consumption in old age and reduce the potential burden on younger generations. Better incentives for labour force participation of the 65-74 age group are therefore important and would include more flexible and "age-friendly" work practices by employers, raising the normal retirement age in public and private pension plans, allowing RRSP contributions to be made up to 75 years of age, and reducing the clawback provisions of the GIS.

Even with more employment income, direct transfers are bound to continue to play an important role in sustaining the consumption level of the elderly population. The "traditional" direct transfer mechanism is direct support of the elderly by their children.[2] This mechanism likely remains important although we have no good measure of the amount of intra family transfer that takes place. A second "traditional" mechanism is support for the elderly through charitable institutions such as the church. But by far the most important direct transfer mechanism is transfers of cash and services from governments to the elderly — essentially OAS/GIS and direct services such as health care and long term care.

[2] Direct transfers here exclude Employment Insurance, CPP and Workers' Compensation, which together accounted for 20.6 percent of the total non-employment income of 65+ persons in Ontario in 2011.

Table 1: Cash Income and Indirect Healthcare Transfer: Persons of 65+ of Age in Ontario — 2011

	$ per Senior	As % of non-employment income of seniors
Total cash income	37,859	
Employment income	5,649	
Non-employment income of which:	32,210	100.0
Investment income	4,265	13.2
Direct government transfers	8,108	25.2
of which: OAS/GIS	6,927	21.5
CPP	6,281	19.5
Private pensions & RRSPs	12,446	38.6
Other income	1,110	3.4
Transfer implied by total health care spending by Ontario government	11,827	36.7

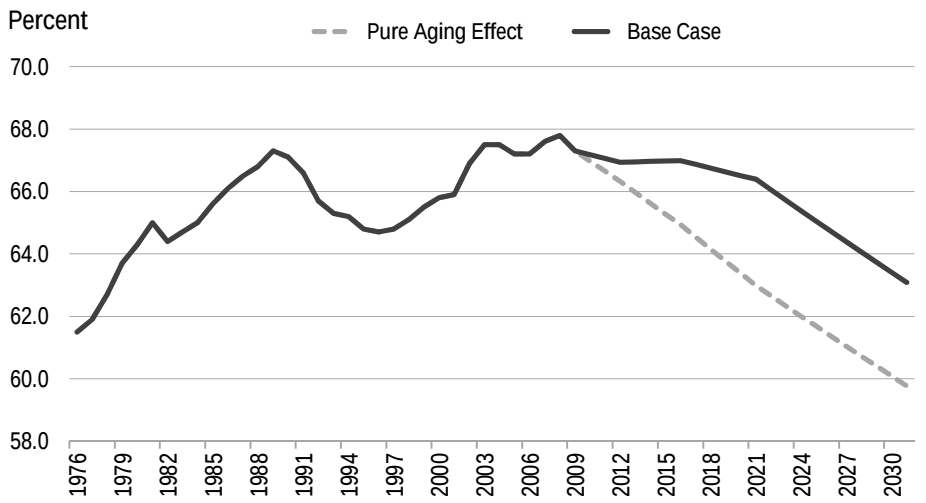
Sources: Statistics Canada and Canadian Institute for Health Information

It is mainly taxes on current members of the labour force[3] (net) that are used to pay for government-provided cash transfers, direct services (health care, long term care, etc.) and goods (drugs) to those over 65 years of age**.**

Direct transfers are made from the working population to the elderly retired population not on the basis of an individual's past effort to save, but unconditionally on the basis of a persons' age, although the Guaranteed Income Supplement (GIS) is income-tested. This pay-as-you-go system of transfers can work without excessive intergenerational conflict when the "retired" population is small or declining relative to the "working population" (as it has been for the last half century) but can lead to serious tensions when the "retired" population is large or increasing (as it will now begin to do) relative to the labour force. Growth in the labour force is projected to slow materially over the next two decades because of slower growth of the prime working-age population and a decline in the aggregate labour force participation rate (Chart 1). The latter would stem from population aging, the effect of which would be only partly offset by increases in the participation rates of the different labour force cohorts.

[3] The share of provincial and federal income taxes paid in Ontario by persons aged 65+ (including those still working) in 2011 was only 13%.

CHART 1 Labour Force Participation Rate in Canada



Source: David Dodge and Richard Dion. "Chronic Healthcare Spending Disease: A Macro Diagnosis and Prognosis". C.D. Howe Institute Commentary No. 327, April 2011.

The inter-generational tension over transfers from the working population to the retired population can of course be reduced if productivity, and hence real income produced per person in the working population (labour force), is rising rapidly or if the share of the population over 65 who remain in the labour force increases sufficiently to offset the demographic shift or if those who are retiring have "saved" enough during their working years to finance investment which will contribute to the production of goods and services after they retire.[4] It is through the investment financed by their saving that the current generation of workers can "earn the right" to a flow of goods and services when they retire without becoming a burden on the next generation of workers.

[4] Intergenerational tension can be reduced if the effective retirement age is increased. This paper does not directly deal with pension or other policies which directly impact retirement age. The intergenerational tension would also be reduced if the terms of trade, and hence the real domestic spending that can be accommodated from production income, were increasing. There is relatively little that policy measures could do to influence the terms of trade, however.

III. MACROECONOMICS OF SAVINGS AND INVESTMENTS

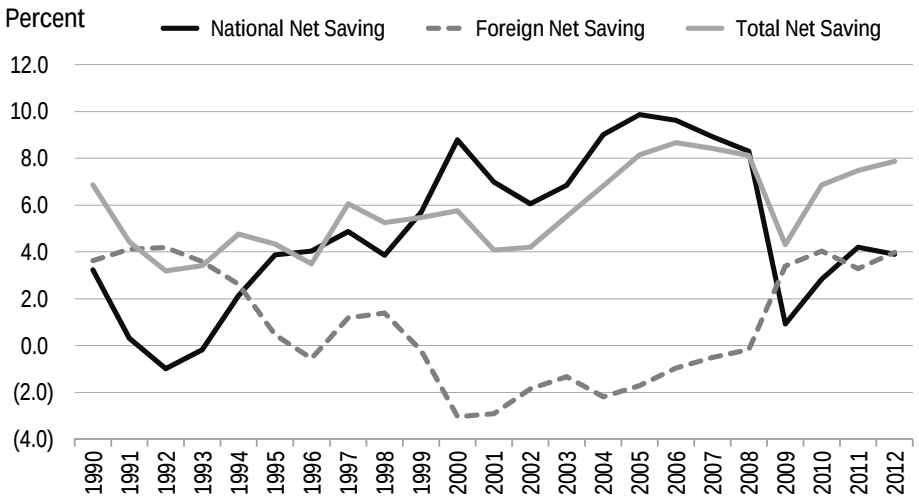
Over the long haul, investment in plant, equipment, infrastructure and human skills and the adoption of new technologies is what drives productivity growth of the employed population. The rise in domestic productivity in turn facilitates increased payments to the retired population without reducing the disposable incomes of the working population by increasing aggregate income and government revenues and by enhancing returns on domestic financial assets. In this way, direct transfers to the retired population become more affordable and retirement savings more productive.

To finance a long term buildup of investment in domestic productivity-enhancing assets (plant, equipment, infrastructure and R&D) and in financial assets, high rates of saving by "households", corporations and governments may be required. The last several decades reveal that in spite of international capital mobility, domestic saving rates are highly correlated with domestic investment rates across the advanced economies. Besides, heavy reliance on foreign saving makes domestic investment more vulnerable to economic and financial shocks abroad. The implication is that if you want to raise your domestic investment rate more or less permanently, you better encourage a higher domestic saving rate as well.

In the last several years in fact, national net saving has tended to decline as a share of GDP and since 2008 has been somewhat below its 20-year average (Chart 2), reflecting lower saving rates for governments and corporations in the wake of the latest recession (Chart 3).[5] Foreign saving, on the other hand, has been on the rise as a proportion of GDP since the mid-2000s.

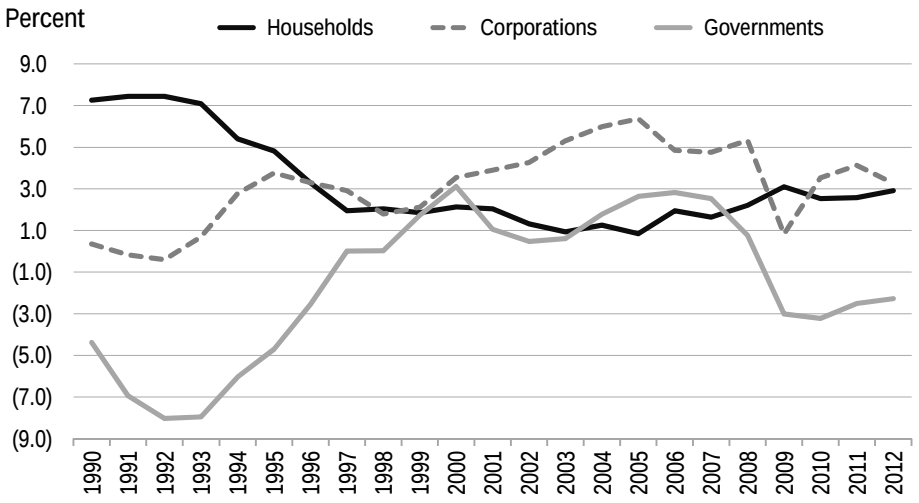
[5] Net saving is equal to gross saving minus consumption of fixed capital (CC) and net capital transfers (NCT). CC tends to evolve smoothly over time while NCT is relatively small. Thus, the variations over time in gross saving are driven by variations in net saving.

CHART 2 Net Saving as a Percent of GDP — Canada



Source: Statistics Canada.

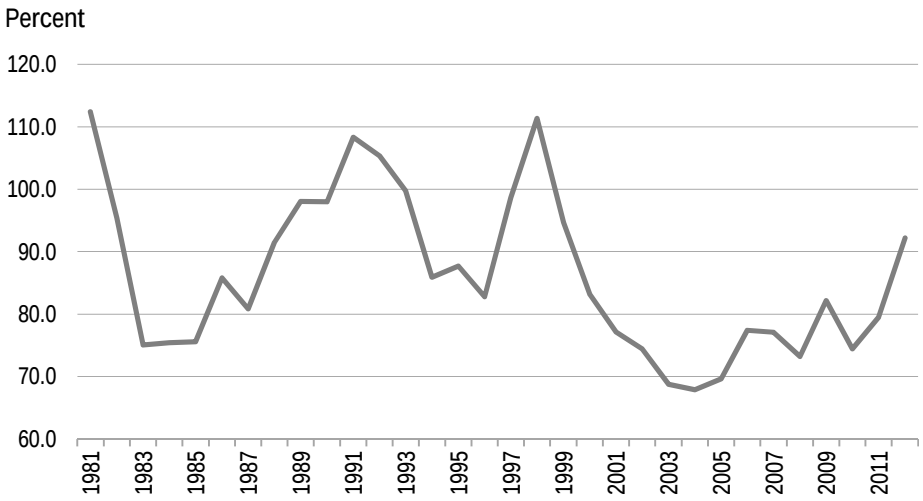
CHART 3 National Net Saving as a Percent of GDP — Canada



Source: Statistics Canada.

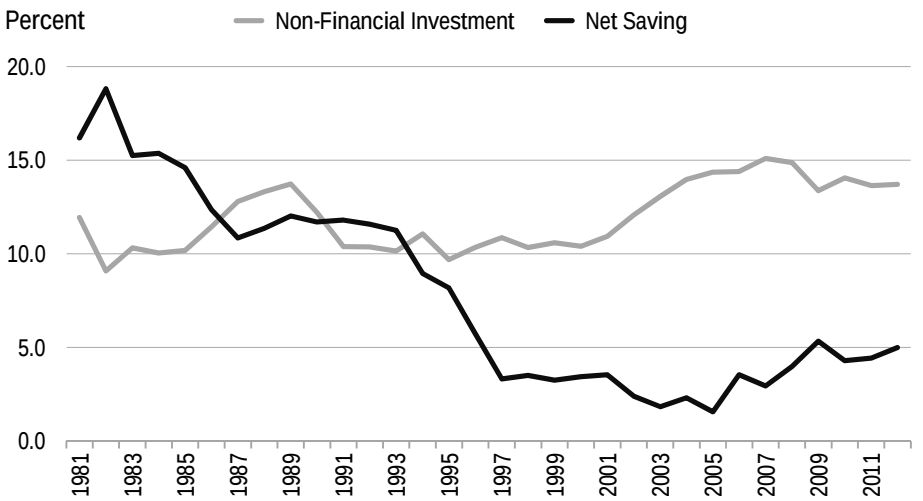
In the last several years, corporate investment, (although at comparatively high levels relative to GDP), has been rather subdued relative to corporate profits, whose share of GDP has been significantly higher since the late 1990s (Chart 4). In contrast, non-financial investment by Canadian households, essentially in housing, has been at or near peak levels relative to disposable income in the last decade, far exceeding household saving which nonetheless reach a rate near its 15-year peak in 2012 (Chart 5). In turn, this has resulted in a substantial increase in household borrowing and indebtedness relative to disposable income. The resulting impact on non-discretionary saving required to service higher household debt levels has been cushioned by historically low interest rates. As interest rates rise to more normal levels over the next several years, however, increased debt servicing costs may induce a reduction in the rate of discretionary retirement saving.

CHART 4 Corporate Non-Financial Investment as a Percent of Net Operating Surplus — Canada



Source: Statistics Canada.

CHART 5 Household Investment and Net Saving as a Percent of Disposable Income — Canada



Source: Statistics Canada.

It thus seems that relative to sectoral disposable income, corporate non-financial investment has been rather weak and household (residential) investment very strong in the last decade or so. What is needed now is raising growth in non-residential investment and increasing household investment in financial assets through increasing household retirement saving. Governments have already taken elaborate measures to compress their consumption (operational) spending relative to their revenues in order to achieve balanced budgets in the short to medium term. Moreover, there are pressures on them to increase their investment in infrastructure in order to enhance productivity and income growth in the private sector.

An increase in the rate of non-residential investment (plant, equipment and infrastructure) supported by an increased contribution from national savings should be fostered in order to promote a faster rate of potential output growth in the longer run, thereby faster rates of growth in disposable income for both the working and retired populations. A higher rate of contractual household saving[6] for retirement would provide more adequate retirement income and consumption to future retired populations, thereby preserving their welfare and reducing the need for intergenerational transfers.[7] It would also likely lead to a higher national saving rate, and hence support growth in the longer run.

But, in the short run, would an increase in the household savings rate as a result of an enhanced CPP, for example,slow aggregate demand via reduced consumption growth?

The answer is: “yes, but”.

The initial impact of higher savings by household and governments in whatever form, is unambiguously to reduce domestic demand. But the initial impact of higher non-discretionary retirement saving (via increased CPP contributions by workers and employers) on household consumption would likely be mitigated in part by lower discretionary saving as households would expect a higher “permanent” income as a result of higher and more secure returns on their CPP contributions and that of their employers than on their own discretionary saving. At the same time, increased CPP contributions by employers would likely have a small downward impact on corporate saving. They would also encourage investment in labour saving technology, and put some downward pressure on cash wages, thereby potentially slowing consumption temporarily. In addition, part of the increased CPP contributions by employers could be passed through to customers in the form of somewhat faster price increases (temporarily), partially offsetting the deflationary impact of increased personal saving.

6 Contractual savings includes both mandatory saving such as the CPP and voluntary saving in the form of employer or group pensions.

7 It may be worth noting here that since consumption by retired persons is counted in household consumption but is financed more by running down pension assets than by current income, the aging of the population would tend to lower the measured rate of household saving in the national accounts as we move into the late 2020s.

On balance the net impact of an increase in household saving via the CPP is negative, but relatively small and short lived while the structural impact on growth would be relatively quite significant and long lived, but only manifest after a period of time. In the end, any temporary slowing of the economy could and should be partially offset by increased government borrowing to finance needed infrastructure and/or by easier monetary policy and/or exchange rate adjustment. Therefore, conjunctural (i.e., cyclical) considerations should not be given the same weight as longer term growth and income distribution considerations.

Moreover, given that the maximum negative impact will be felt gradually during a phase-in period and that this phase-in period will only begin in a couple of years, it is likely that the modest reduction in aggregate demand that the increased saving would induce would be appropriate in view of the fact that the Canadian economy most likely will be operating at or above capacity by that time. In terms of reduction in aggregate domestic demand, the withdrawal of government demand as the federal government raced to eliminate its nominal deficit and reduce its debt/GDP ratio in recent years was likely greater than would be the modest immediate impact of an increase in household saving due to the proposed CPP enhancement/expansion..

To prepare ourselves in Canada and Ontario for our collective old age in the 2030s and beyond, it is clear that our national saving and investment rates need to rise now in order to increase both our stocks of net financial assets and of physical and intangible capital so that higher income growth could be achieved as our labour force growth declines and our elderly population increases relatively rapidly. Households have an important role to play in this process by saving more and channeling more of their saving in higher-yielding assets that can better support income and consumption in retirement. The question then is: what are the best mechanisms to facilitate (incent) household savings and their efficient deployment? This issue is addressed in the next section of this paper.

IV. INDIVIDUAL HOUSEHOLDS' INCENTIVES TO SAVE

This section examines the incentives faced by individual households to reduce consumption during their working lifetime (save) in order to consume more during their retirement.

Standard economic theory and analysis of actual experience suggest that households decision to forego current consumption during their working years depends on:

a) Their total desired consumption in retirement, which in turn depends on the age at which they expect to retire and their life expectancy at retirement;

b) Their income level while working (i.e. their discretionary incomes); and

c) Implicitly or explicitly the real rate of return net of taxes on their savings, including investment in owner operated businesses.

Individual households exhibit a wide range of preferences to the desired level of income they wish to maintain in "later life". Some are prepared to retire from the active labour force at a later age in order to maintain current consumption while working. Some are prepared to forego a lot of consumption while working, to maintain a relatively high level of consumption late in life. Others live for the day and are prepared to countenance a sharp drop in consumption once they retire. Some households will seek out employers who provide stable jobs with pensions but lower cash incomes. Others prefer higher risk employments with higher expected cash incomes and no deferred wages in the form of pension. Households vary greatly in their risk preferences and their implicit discount rate. In short, there is no "ideal" target level of income replacement in retirement that fits all households. Hence, to the extent possible, general social welfare is probably better served by leaving the "savings decision" up to individual households.[8] The one exception to this general proposition is for lower income households; it is to the incentives faced by lower income households that we now turn.

[8] Traditionally, a "target" retirement income equivalent to about 60% to 70% of final earnings (after "normal" retirement age) has been assumed appropriate for middle to upper middle income workers (4^{th} to 9^{th} decile) while a higher replacement (70% to 85%) is required for lower income workers.

i. Lower Income Working Households

It is clear that lower-income working households find it much harder to forego current consumption than higher-income households and will tend to undersave for their old age in the hope that someone (the government or their families) will keep them out of abject poverty once they finally leave the labour force. Hence, as a matter of public policy, governments have collectively applied a two pronged approach: to require lower and middle income workers to save more than they might otherwise do (CPP/QPP), and to provide tax and other incentives to induce more voluntary saving (RPP, RRSP, and TFSA). And as a matter of social policy, Canadian Governments decided to provide some income support to all people over 65 (except those with very high incomes) through the federal government OAS program, a direct transfer from the working population to retirees.[9] Also, governments decided that people over 65 who had very low incomes during their working years and hence did not save much (even through the mandatory CPP), should have their income supplemented via the GIS. The problem is that the GIS with its high basic guarantee and high claw back rate negates the savings incentive provided by the RRP and RRSP provisions for lower and lower middle-income workers.

Because the GIS claw back effectively imposes a very high rate of tax on retirement pensions (CPP, RPP and RRSP, but not TFSA), indeed an effective tax rate much higher than the rate of tax saved on income set aside as pension contributions while working, there is an incentive for lower income workers (first three deciles) not to save through a RPP, RRSP or even the CPP. When the current CPP and GIS systems were both legislated in the mid-1960s, the thought was that the GIS would fade in importance as people built up pension entitlement through the CPP. This has not happened as the GIS guarantee has been increased over time while the maximum proportion of earnings replaced by the CPP has remained constant.

The question we must answer going forward is: should we require lower income workers over their working life to save more through mandatory contributions to the CPP or are we content to see rising taxes on the future working population to pay for GIS transfers? The higher the GIS maximum payment the federal government establishes, the greater the disincentive for lower and lower middle-income workers to save (except via the TFSA[10]) and implicitly the greater burden on future working taxpayers to pay for the GIS, i.e. the greater the intergenerational transfer. Similarly, the lower the CPP replacement ratio for lower income workers, the greater the intergenerational transfer in the future.

---

[9] Roughly 85% to 90% of current personal income tax revenues come from those under 65 years of age.

[10] All amounts withdrawn from TFSA accounts are ignored when calculating income for purposes of the GIS clawback or for income tax calculators.

ii. Middle Income Working Households

For middle income workers (4th through 9th decile) who choose to retire at the currently "normal" retirement age of 65, total savings on the order of 16 to 20% of earned income are required throughout working life to provide a retirement income of about 70% of earned income while working.[11] Of this total, CPP/QPP represents 3 to 6 percentage points.

Even if a lower replacement rate of 60% is targeted and retirement is delayed until age 67, total savings of 11% to 14% are required (private savings of 5% to 10% over and above CPP). Even this lower figure of private savings of 5% to 10% of earned income likely exceeds by a significant margin the current ratio of saving to earned income for much of the working population.[12]

For middle and upper middle income retirees, the OAS system provides a minimal proportion of the income needed to replace earnings. Raising the OAS by enough to make a significant contribution to replacement of earnings for median earners and above would be very expensive for the federal government and necessitate a significant tax increase on the working population, exacerbating intergenerational tensions and arguably slowing the improvement in productivity performance. For this reason, raising the OAS is not a preferred approach to improving retirement incomes for middle-income workers.

The CPP as currently constituted replaces only a maximum of one quarter of earnings up to the median and less at higher levels. For this reason it has been proposed that the CPP be expanded to replace a greater fraction of earnings up to the YMPE[13] (approximately the median), for example 35% instead of 25% currently, and to raise the YMPE to a level between the current YMPE and twice the current YMPE. While there would be some decrease in discretionary saving by middle income groups were the CPP expanded, nevertheless retirement incomes of the 4th to 9th deciles would clearly be higher once the plan matures. The question that then arises is whether an increase in the CPP (or a provincial equivalent) is the optimal way to provide for higher retirement incomes for middle-income workers.[14]

---

[11] See D.A. Dodge, C. Busby and A. Laurin: "The Piggy Bank Index: Matching Canadians' Saving Rates to their Retirement Dreams", C.D. Howe Institute e-brief, March 18, 2010. Note that CPP contributions reach a maximum at the 6th decile in the earnings distribution.

[12] As a rough indication, the ratio of total net household saving to total wages and salaries for Canada was 6.5% in 2012.

[13] Year's Maximum Pensionable Earnings (YMPE) refers to the earnings ceiling in the CPP, above which no CPP entitlements can be earned.

[14] This paper does not focus on mechanisms aimed specifically at top decile earners. Because of limits on tax assisted savings and the OAS claw back, high income earners must set aside a very high fraction of their earnings to meet a 60% or 70% replacement target.

iii. Risks and Returns

While there is no consensus on the "right" target replacement rate and hence on the "right level of saving", what is clear is that many working households in Canada and Ontario are not currently saving enough to meet their expected desires in retirement unless they were to receive significant increases in direct transfers in cash or services paid for by taxes on future generations. What is also clear is that many current workers (especially the younger cohorts who are not likely to be enrolled in defined benefit employer plans) have difficulty accessing the most appropriate vehicles to provide higher net returns on their savings and at retirement lack access to fair group annuity rates. It is in the context of concerns about both the adequacy of current household savings and the lack of access to the most efficient savings vehicles that the current debate over the CPP is taking place. Through the CPP Investment Board, CPP contributions yield a rate of return net of investment expenses that exceeds median returns on individual RRSPs net of investment fees. The annual return on CPP assets averaged 6.5% over the period 2000-2012 and is projected to average 5.2% to 2020 and 5.8% to 2030. At the same time, the pension benefits of the CPP are paid at the annuity rates appropriate to the population as a whole compared to the lower rates offered to individuals from their RRSPs.[15]

Moreover, CPP entitlements are wage-indexed during one's working life and inflation-indexed after retirement. In addition, the CPP is fully portable within Canada. Thus from middle income employees' perspective, an enhanced CPP (with contributions set at actuarially fair rates) would represent a retirement savings vehicle that is superior to many corporate DB plans and group or individual savings vehicles. From employer's perspective, the CPP is very clearly superior to a corporate defined benefit (DB) plan since with the CPP the employer does not face asymmetric funding risks associated with an employer guaranteed DB plan. From the perspective of human resource management, the CPP is also superior to a corporate DC plan as the CPP provides a guaranteed pension which enables older workers to actually retire rather than "retiring on the job".

[15] These lower rates result from the need of insurers to provide for adverse selection for individually purchased annuities.

But an enhanced CPP (or Ontario add-on) can only partly meet the needs for increased savings for retirement by younger current members and future members of the labour force.[16] For many middle and upper income workers improvements to voluntary savings options (both contractual and other) are essential and require modernized legislative and regulatory provisions to be most effective. To facilitate the provision of employer based pensions, it is important for Ontario to develop prudential rules for corporate DB pensions which (1) dampen the volatility of calculated regulatory deficits and surpluses, (2) reduce the asymmetry that prevent return of surplus to employers in classic DB plans, (3) require prefunding of benefit enhancements and most importantly (4) govern shared risk plans (hybrids) that make such plans attractive to employers as well as employees.

Second, if pooled registered pension plans (PRPPs) are to work at all, Ontario must develop rules which facilitate the efficiency of such plans. This is not easy since PRPPs can only work if these plans quickly achieve the scale necessary to be efficient investors. These rules will have to provide for collective management of funds (some degree of collusion among private sector providers) and give providers some efficient way to manage longevity risk either through reinsurance or retiree risk sharing.

Third, if purely voluntary individual saving is to be enhanced to provide higher incomes for people well into their 80s or 90s, the effective provision of individual annuities needs to be facilitated, although it is not clear what legislative or regulatory provisions would do this.[17]

Finally, to help deal with long-term care needs, government needs to work with the private sector to develop some form of long-term care insurance.

[16] For those near retirement, no changes in arrangements can increase savings enough to materially raise the income after retirement.

[17] In principle, deferred annuities could be used to overcome this latter problem but this market is not well developed.

V. Overall Conclusions

From the above discussion, we reach the following conclusions for Ontario:

1. In order to prepare for the downturn in the LFPR as Ontario's population ages, an increase in labour and total factor productivity is very important in order to reduce the burden of direct transfers from the working population to retirees.

2. To postpone the decline in the LFPR until measures to increase saving and productivity have an impact, measures to strengthen the attachment to the labour force for those that have reached the age of retirement should be considered.

3. To finance the productivity enhancing domestic investment in infrastructure, plant and equipment and human capital, domestic savings need to increase. In particular, the saving rate of the working population need to be raised quickly and sustained for at least a couple of decades.

4. An increase in household saving will have a small negative effect on aggregate demand in the very short run, an effect which will automatically be offset in part through the exchange rate and other structural adjustments and which should be offset by an easier monetary policy and/or increase in public sector or agency borrowing to finance infrastructure investment. In the longer run, higher household saving would enhance growth of output and incomes.

5. An increase in future CPP pensions financed by an increase in actuarially appropriate CPP premiums starting in the near future would be an efficient measure to increase household saving and to provide for higher retirement incomes.

6. At the same time, regulatory and legislative measures to facilitate the creation/expansion of shared risk (hybrid) employer or group pension plans need to be considered.

7. While it is important for governments (provincial and federal) to balance or run some surpluses on operating account over the cycle (i.e. be net savers on operations), to finance the infrastructure necessary to support growth and productivity it is appropriate at the present time for governments (or their agents) to be net borrowers on capital account.