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Version: Pre-print

Publisher's version: Osberg, Lars, "Looking Forward: Social Security in an Era of Ageing, Inequality and Instability," (Draft version of paper to be presented at 21ST INTERNATIONAL RESEARCH SEMINAR ON ISSUES IN SOCIAL SECURITY, SIGTUNA, SWEDEN, 2 - 4 JUNE, 2014).

LOOKING FORWARD:
SOCIAL SECURITY IN AN ERA OF AGEING, INEQUALITY and INSTABILITY

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Version: 28/05/2014

Draft version of paper to be presented at 21ST INTERNATIONAL RESEARCH SEMINAR ON ISSUES IN SOCIAL SECURITY 2 - 4 JUNE, 2014; FISS – Foundation for International Studies on Social Security, SIGTUNA, SWEDEN. Section 2 draws on the author's Keynote Address: "What's so bad about more inequality?" delivered to the Academy of the Social Sciences in Australia – 2013 Annual Symposium "*Levelling the Spirit: Addressing the Social Impacts of Economic Inequality*", Canberra, Australia, 12 November 2013. It was extensively revised during the author's sabbatical in the Statistics Directorate, OECD, whose hospitality is greatly appreciated.

Abstract

The U.S., Canada and Australia are three of the countries whose old age security policy designs have most strongly emphasized private market-based savings, even though most retirees in fact depend on public pensions. This paper argues that the macro-economic environment for social security policy has changed in those countries. Balanced growth of incomes has been replaced by a new normal of stagnant incomes for most households and strong income growth at the top, which implies steadily increasing inequality of income. Unbalanced growth of household incomes implies unbalanced growth of saving and borrowing, lower rates of financial market returns, slower growth of incomes, increasing financial fragility for lower and middle income households and increasing probability of financial crises. This new macro-economic normal will have its biggest initial impact on retirees dependent on defined contribution plans and private savings but is also likely to affect the political economy of public pension reform.

LOOKING FORWARD:
SOCIAL SECURITY IN AN ERA OF AGEING, INEQUALITY and INSTABILITY

Lars Osberg
May 28, 2014

Since the signing of the United Nations Universal Declaration of Human Rights in 1948, the right of all persons to “security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control”¹ has been explicitly recognized in international human rights law. Much of the spending of the modern state addresses these human needs for security, which do not change much from one year to the next, but are easier to finance when income growth is strong, stable over time and balanced across income classes. However, what is likely to happen when stable and ubiquitous human needs confront an increasingly unstable and increasingly unequal economic environment?

This paper starts with a brief outline of the current social policy context, before proceeding to an analysis of possible changes in the macro-economic context for social policy and a discussion of possible implications of such changes. Old age security in Australia, Canada and the United States is the primary focus and two general themes are emphasized: (1) the extent to which public, tax-financed programs are relied upon in preference to private, market-based savings decisions and (2) the balance between a “Bismarck” emphasis on the protection of all citizens from substantial declines in consumption in old age compared to a “Beveridge” model in which the role of the state is limited to preventing destitution in old age².

Section 1 compares the social expenditures of OECD nations and the structure of their old age security systems. Although affluent market-based economies have chosen a wide range of expenditure levels and program parameters in their diverse attempts to provide social security for their residents, Canada is a useful extreme case to discuss, since its public pension objectives have always been very restricted, and Canadian data arguably represent an example of the limits of what can be expected from private market savings.

The appropriate design of a pension structure, and the risks to which individuals are exposed within any given structure, depend heavily on anticipated macro-economic context. Section 2 argues that balanced growth during roughly the 1950-1980 period facilitated the assumption that market economies typically grow steadily over time, with only occasional mild random shocks, implying a relatively benign environment for social security policy designers. However, since the early 1980s a number of countries (particularly the U.S.) have experienced a ‘new normal’ of unbalanced growth in which substantially higher real income growth rates for the top 1% of the income distribution imply increasingly unbalanced savings flows, downward pressure on interest rates and, as top end savers increase their financial assets (implying that the financial liabilities of everyone else also increase) increasing financial fragility, leading to periodic financial crises and ensuing real recessions. For old age

¹ United Nations (1948: Article 25) – Article 2 explicitly guarantees all rights to male and female persons equally.

² The distinction has been summarized as: “The aim of the Bismarck system is thus to assure a standard of living while the Beveridge system focuses on securing a subsistence level.” (DICE, 2008:70)

security, the most important likely implications are lower and riskier financial market returns and more frequent and more severe cyclical pressures on public budgets.

In affluent countries, the implications of falling birth rates and an aging population for pension sustainability have long been discussed. However, less attention has been paid to the implications of a possible “New Normal” of lower market rates of return, occasional financial crises and generally depressed growth. Section 3 speculates on some possible implications for pension adequacy and the balance between market-based and public systems of social security provision.

1. Current Social Security Spending

Figure 1 summarizes the total social expenditures addressing the human rights enumerated in Article 25 of the UN Universal Declaration of Human Rights (i.e. security in the event of old age, widowhood, unemployment, disability and ill health), other social needs and all other public expenditures in 2009 (the latest currently available year)³. Its basic message is two-fold: (1) the variation across countries in relative emphasis placed on specific social expenditures (such as old age spending compared to disability); and (2) the consistent importance of social security expenditures – with only a few exceptions, social expenditures are a very significant fraction (in 15/33 an actual majority) of total government spending on goods, services and transfers. Even during a recession year such as 2009, it is notable that spending on unemployment insurance benefits is typically dwarfed by other social spending. Australia, Canada and the United States are all to be found at the low end of relative social spending

However, although Table 1 shows how the overall level of public spending on old age security and other social security objectives varies across countries, it does not indicate how each type of spending is distributed within countries. A particularly important policy issue in spending on old age is the difference, across countries, in how much income security in old age is provided to the middle class by the public pensions system, compared to the percentage of working life income replaced for low income citizens. Although there is general agreement in most countries that the very affluent can decide for themselves how much income to keep for their old age, national pension policies for the middle class have long differed. The “Bismark” perspective in social policy has argued that public pensions should be earnings related and have broad coverage in order to maintain living standards in retirement for the middle class, as well as the less well-off – partly because maintaining social stability⁴ is seen as an acceptable and necessary role of government. By contrast, the “Beveridge” viewpoint is that the role of the state should be limited to preventing destitution among the elderly, implying that if the middle class want to maintain their working life consumption patterns, they should save privately for their old age – social stability is assumed.

³ OECD data as of May, 2014; See Appendix, Table A1 for corresponding numbers. Debt servicing charges are excluded.

⁴ Bismark’s original objective in 1884 was to ensure the stability of the Kaiser.

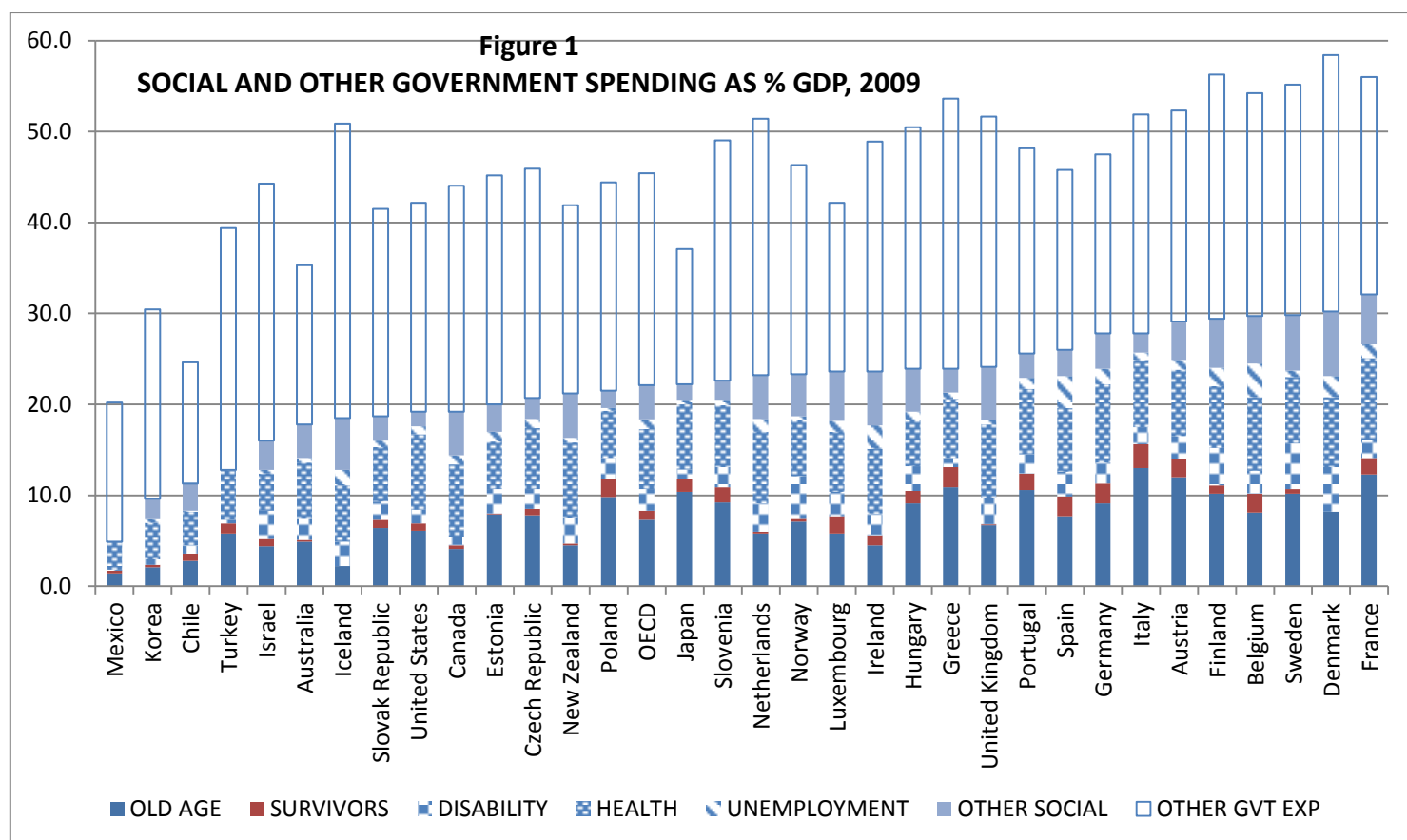


Table 1 is an extract from the OECD's *Pensions at a Glance 2013*⁵, which compares the replacement rates from public and mandatory private pensions that workers can expect with a working life history of employment at 50%, 100% and 150% of average earnings. In the OECD as a whole, and particularly in the EU27, the replacement rate is somewhat higher among low wage workers, but the public pension system also provides significant income security to those with higher working life wages.

Table 1: Net pension replacement rates from public and mandatory private schemes

Percentage replacement of individual earnings for persons at 50%, 100% and 150% of average individual earnings

	Public			Total mandatory		
	0.5	1	1.5	0.5	1	1.5
Australia	57.7	17.5	0.9	100.5	67.7	54.3
Canada	71.5	50.6	35.2	71.5	50.6	35.2
United Kingdom	61.7	38.0	27.2	61.7	38.0	27.2
United States	56.2	44.8	40.4	56.2	44.8	40.4
OECD34	65.7	48.7	42.6	79.4	64.1	58.3
EU27	68.6	56.6	50.7	80.0	69.1	64.3
France	75.9	71.4	60.9	75.9	71.4	60.9
Germany	55.9	55.3	54.4	55.9	55.3	54.4

Source: OECD pension models.

OECD (2013), Table 4.10 Pensions at a Glance 2013:
Retirement-Income Systems in OECD and G20 Countries

⁵ Appendix Table A1 presents the full list of countries, ordered by the replacement rate for workers with 150% of average earnings.

Among ‘Anglo’ countries, however, the Beveridge perspective has clearly been more influential – replacement rates are often quite low for workers with above average earnings. Compared to Australia or Canada, the U.S. is furthest from the Beveridge ideal since Social Security benefits are earnings related and coverage is in fact relatively comprehensive (in 2014, earnings up to \$117,000⁶). However, a sliding scale for benefits and the availability of Supplemental Security Income (a means tested top-up payment available for low-income pensioners) implies a larger replacement rate for lower income workers. Among elderly Social Security beneficiaries, 52% of married couples and 74% of unmarried persons receive 50% or more of their income from Social Security and 22% of married couples and about 47% of unmarried persons rely on Social Security for 90% or more of their income⁷.

Canada is an intermediate case since a low flat rate universal Old Age Security benefit (OAS) combines with a Guaranteed Income Supplement (GIS) designed on negative income tax principles to keep most low income seniors above destitution. The earnings related component is limited to the Canada Pension Plan (CPP)⁸ system which, as Kesselman (2010:30) notes, “was established in 1966 with a deliberate low replacement rate based on the expectation that workplace pensions and personal savings would grow to supplement the OAS/GIS to provide an adequate overall replacement rate for all Canadians. That outcome has not occurred, and trends in workplace pensions as well as individual savings do not bode well for many future retirees.” Australia is the closest to the Beveridge norm. Although contribution to market based (defined contribution) superannuation plans has been mandatory since 1992, Age Pension (a flat rate means tested payment) was received by 77 per cent of Australians over the age of 65 in 2006-07 – a percentage which was not expected to decline much even as superannuation plans matured⁹.

Neo-classical economists may populate their theoretical worlds with rational, foresighted utility maximizers who save steadily throughout their working lives in order to finance their retirement years, but one can only find a few such types in real world data. Table 2 presents data on actual patterns of financial asset ownership among the early retired in Canada.¹⁰ Although the current cohort of Canadian retirees have known the parameters of the Canadian old age security system for their entire working lives, only about a third of

⁶ see <http://www.ssa.gov/oact/cola/cbb.html>

⁷ See <http://www.ssa.gov/pressoffice/basicfact.htm>

⁸ In the Canadian literature, the reference is to Quebec Pension Plan/Canada Pension Plan (QPP/CPP) because the province of Quebec runs its own pension plan, but since QPP and CPP are harmonized and have the same benefits schedule (maximum pensionable earnings are roughly equal to average earnings and the benefit rate is 25%) we ignore this wrinkle of Canadian federalism. In March 2013, the average monthly CPP amount for new retirement pension (taken at age 65) was \$596.66 (\approx 360€ at current exchange rates) and the maximum CPP monthly benefit in 2013 was \$1,012,50 (\approx 600€). See <http://www.servicecanada.gc.ca/eng/services/pensions/cpp/retirement/index.shtml>

⁹ See Pension Review Background Paper <http://www.dss.gov.au/our-responsibilities/seniors/publications-articles/pension-review-background-paper?HTML>

¹⁰ See MacDonald and Osberg (2014), who used data from Statistics Canada’s 2005 Survey of Financial Security.

households with a head aged 65-74 (32%) acquired more than \$100,000 ($\approx 60,000$ € at current exchange rates) in private financial savings. Despite generous tax incentives, only 20% acquired more than \$100,000 in registered savings. Median total household financial wealth of \$66,000 ($\approx 40,000$ €) would not finance a very long retirement, being equal to less than a year and a half of average industrial earnings. Arguably, this pattern of wealth holdings in retirement is about as much private savings for retirement as one can hope for – middle class Canadians have known for nearly 50 years that public pensions will not replace much of their working life earnings. However, the bottom line is that only a minority end their working lives with appreciable private non-housing wealth.

Table 2

	Percent Canadian households with wealth level of					Mean	Median
	\$0	\$0 - \$5,000	\$5,000 - \$50,000	\$50,000 - \$100,000	\$100,000 +	across households holding wealth/debt	
2005							
Ages 65-74							
(A) RRSP/LIRA/RRIF	40%	5%	26%	10%	19%	118,000	50,000
(B) All Non-Registered	6%	25%	37%	12%	20%	124,000	22,000
TOTAL (A+B)	5%	18%	24%	19%	34%	196,000	62,000
(C) Financial Debt (excluding mortgage)	60%	12%	23%	4%	0%	(17,000)	(10,000)
NET TOTAL (A+B+C)	3%	12%	24%	17%	32%	211,000	66,000

About a third of elderly Canadians have appreciable financial wealth and are therefore directly exposed to financial market risk. Although this is a minority, it is not an insignificantly small minority – and the financially affluent, in any market based society, are never without political influence. In Australia, the mandatory nature of superannuation contributions exposes essentially all earners to market risk in the performance of, and returns to, their portfolio. In the U.S., the widespread popularity of 401K plans and the shift of employer pension plans to a defined contribution design¹¹ likewise imply widespread direct exposure to financial market risk, even if Social Security benefits are the main income source for most retirees. Hence, even if most Canadians, Americans and Australians primarily end up depending in their old age on the political process protecting their public pension entitlements, the question remains: how is the macro-economic context likely to affect incomes in old age, either directly through market forces or indirectly through induced political economy impacts?

¹¹ Between 1987 and 2010, the rate of participation in Private Sector Employer sponsored pension plans in the U.S. barely changed (from 39.8% to 39.5%). However, the percentage of those plans that were defined contribution increased from 28.3% in 1976 to 48.9% in 1987 and 60.1% in 2010. See MacDonald and Osberg (2014:Table 2)

2. Macro-Economic Context – The New Normal and Its Origins

This section will argue that the macro-economic context for social security policy has changed in the U.S. Canada and Australia. Although there was an earlier period (roughly 1950 to 1980) during which income growth was balanced (i.e. approximately equal throughout the income distribution) and fairly steady in many countries, since the 1980s unbalanced growth has become normal – specifically, top 1% incomes have been growing much faster than other incomes. Increasing income inequality over time is one implication of such unbalanced growth and, since income must be either saved or consumed, increasing inequalities in savings and consumption produce increasing pressures on economic and social stability.

In discussing this “New Normal”, this section will emphasize trends in the United States, because the size of the American economy means that U.S. trends have global impacts and because income inequality increases there have been particularly large, with consequently larger impacts on macro-economic instability everywhere¹². It will focus on the changing real incomes of the top 1%, compared to those of the bottom 99% and 90% because: (1) most of the U.S. income distribution has seen remarkably little change in real incomes over the last thirty years; (2) The absolute size of recent changes in the income share of the top 1% (increasing from 10.8% in 1982 to 22.5% in 2012¹³) dwarfs the magnitude of shifts historically observed and (3) the differential in trend growth rates of real income between the top 1% and everyone else has been consistently large for over 25 years, and there is no obvious reason to expect income growth rates to equalise any time soon.

As Alvaredo, Atkinson, Piketty and Saez (2013: 13) put it, for “Anglo” countries: in income distribution, “most of the action has been at the very top”. Gordon (2009) and Burkhauser *et al.* (2009) also found that, as Morelli, Smeeding and Thompson (2014: 79) put it, “the rise in the top end has driven much of the distribution in the United States”. Murphy *et al.* (2007, 2008), Yalnizyan (2010) and Osberg (2008) had earlier come to a similar conclusion for Canada. Osberg (2013) and Veall (2012) reinforce that finding, which is driven by three decades of essentially flat real household income for the lower percentiles of the income distribution, in both Canada and the United States.

Figure 2 updates a similar figure by Alvaredo *et al.* (2013). It shows the evolution of top end income *shares* in Australia, Canada and the United States. However, the income share of the top 1% is really a ratio – i.e. the ratio of the total income of the top 1% to the total income of all persons (the bottom 99% plus the top 1%). Ratios can change over time either because of changes in the numerator or because of changes in the denominator (or both). Hence, the crucial issue is whether change over time is coming from the numerator (top 1% income growth) or the denominator (bottom 99% growth).

Although Figure 2 can perhaps leave the impression that the income share of the top 1% may now just be returning to its 1920s levels – which might be seen as a sort of stabilisation – the fall in income *share* of the top 1% from the late 1930s to the mid-1970s

¹² Osberg (2014) provides more detailed analysis of Canada and Australia.

¹³ <http://topincomes.g-mond.parisschoolofeconomics.eu/> Income including Capital Gains. When capital gains are excluded, the increase was from 8.4% to 19.3%. The size of the top 1% income share *increase* thus approximates the *total* 2012 income share of the bottom 40% of U.S. households (8.3% + 3.2% = 11.5%). www.statista.com/statistics/203247/shares-of-household-income-of-quintiles-in-the-us/

was not due to declines in the real incomes of the top 1%. Rather, the decline in their income share was driven by the more rapid growth of real incomes of the other 99% of the income distribution. Figure 3 plots the income *levels* of the top 1% in real, local dollar terms. It illustrates that there was no long term real decline in top incomes prior to 1980, and it also shows how much top 1% incomes have grown since then – an upward trend to which there is no obvious upper bound. Higher *shares* of taxable income received by the top 1% of the distribution since the early 1980s have been driven by an increase in their relative income growth rate.

Unbalanced Growth

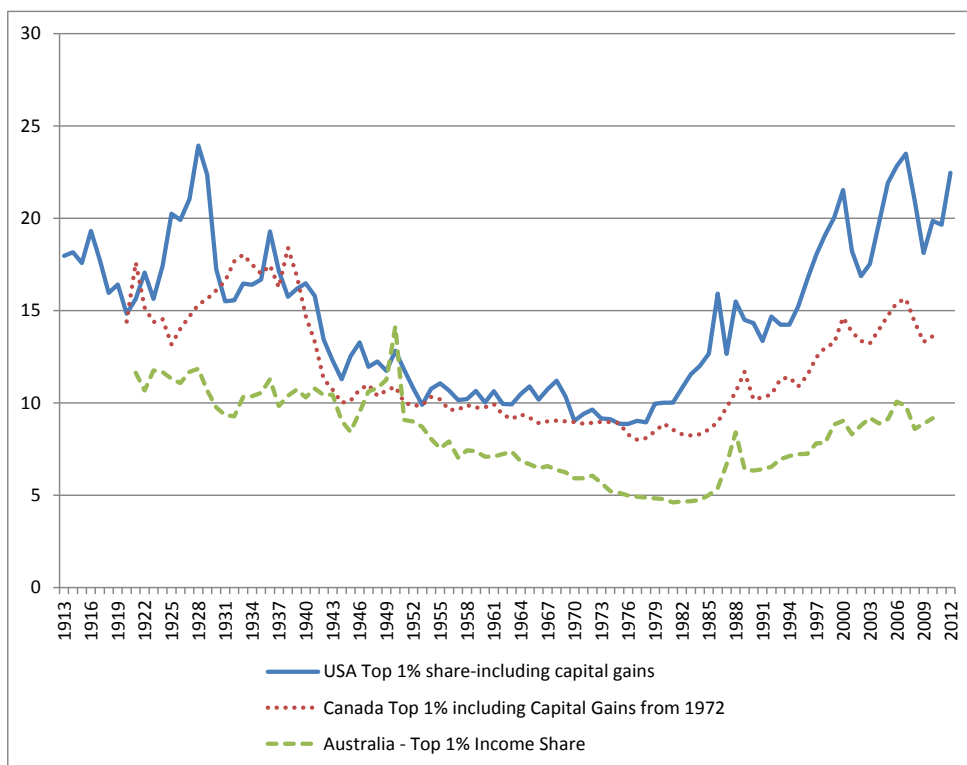
Figure 4 therefore plots the ten year compound rate of real growth in average incomes of the top 1%, bottom 99% and bottom 90% in the United States¹⁴. In the United States, there was a roughly 30 year period in which income growth rates were quite similar – nearly identical from 1967 to 1982 and quite close from 1952 to 1967. During this long period of approximately balanced growth and consequent stability in the income distribution, it became plausible for macro-economic theorists to start to ignore inequality. During this period the “representative agent” paradigm in macro-economics became dominant and the concerns of earlier economists with factor income shares and the implications of income distribution for systemic stability dropped from sight¹⁵.

However, Figures 4 and 5 show dramatic differences in U.S. and Canadian income growth rates in the 1940s and since 1980. Evidently, there can be quite long periods of unbalanced growth. In the 1940s, bottom end incomes grew much more strongly than those at the top end and North American income inequality lessened dramatically – but the last thirty years have been dominated by the opposite dynamic.

¹⁴ See Osberg (2014) for Canada and Australia.

¹⁵ “Representative Agent” models have also been used to analyse retirement security issues (e.g. Imrohoroglu et al, 1995) – partly because the technical problems of forecasting the budgetary implications of social security policies are massively simplified when the macro-economy can be assumed to normally be on a steady state balanced growth path (perhaps with small deviations caused by occasional random ‘real business cycle’ shocks).

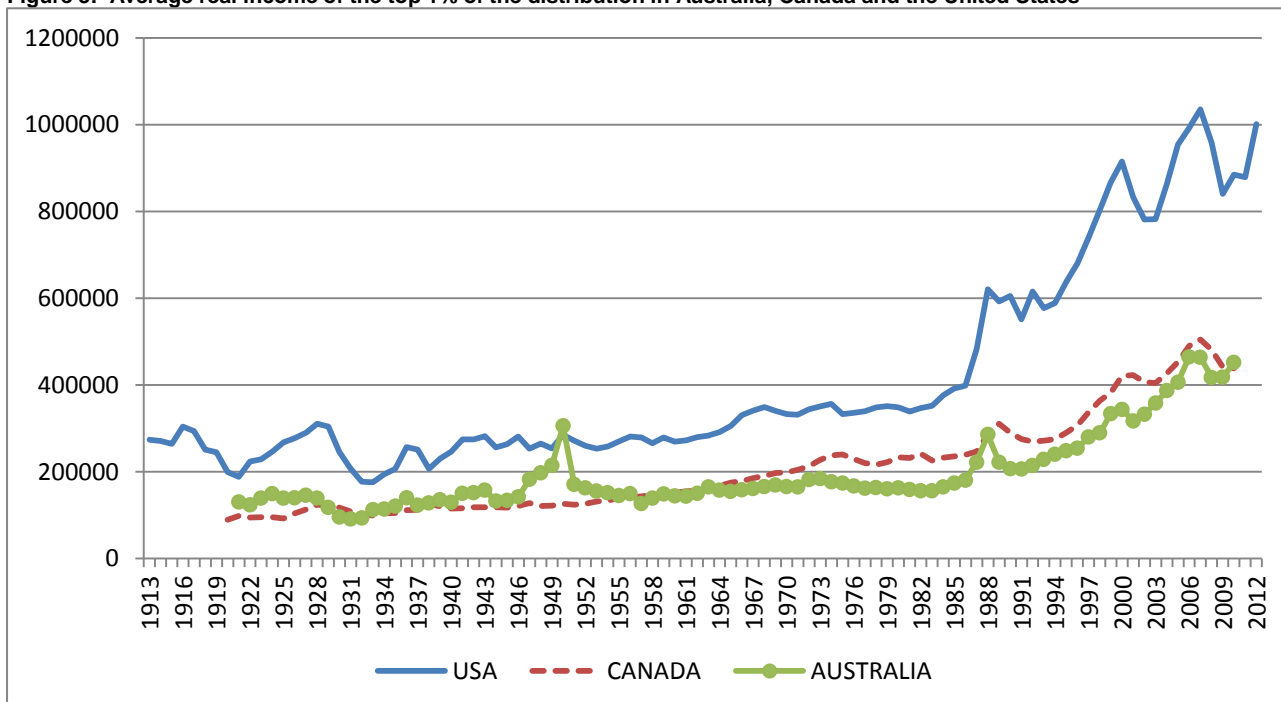
Figure 2: Trends in the income shares of the top 1 percent in Australia, Canada, and United States



Note. Data refer to the income share of the top 1% of people. Income data are based on tax records, and refer to the concept of taxable income. They include capital gains for the United States and Canada (since 1972), while they exclude these capital gains in the case of Australia.

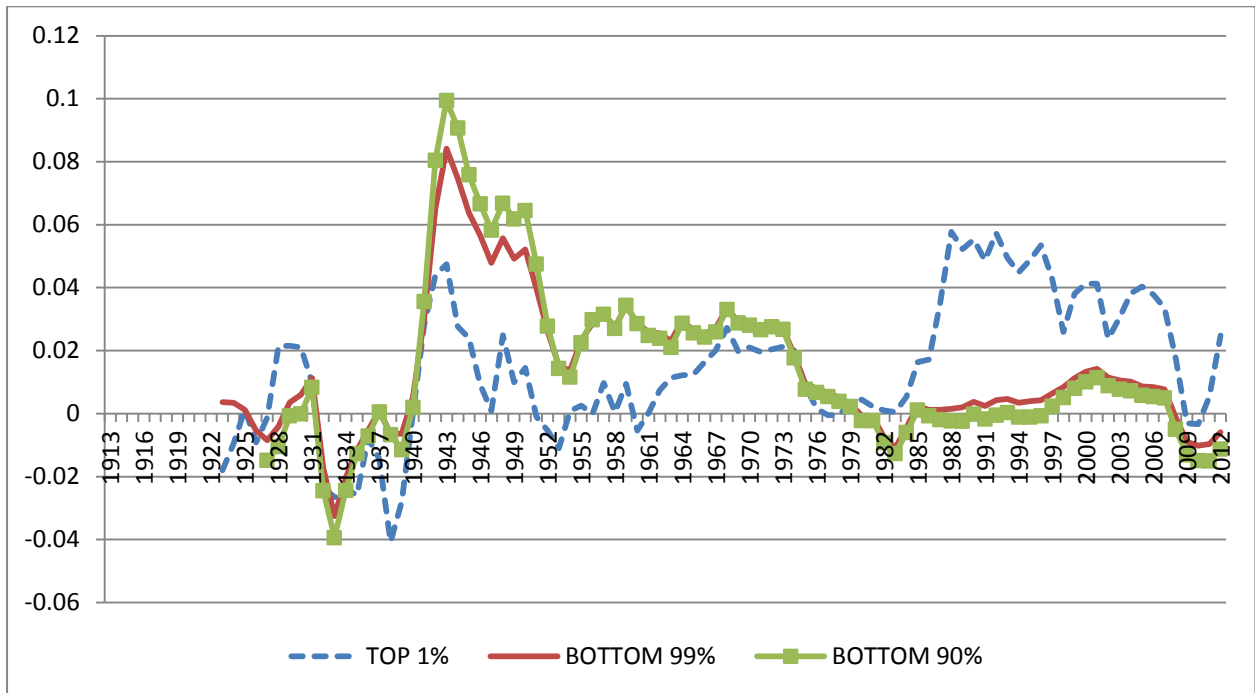
Source: The World Top Incomes Database, <http://topincomes.g-mond.parisschoolofeconomics.eu/>, accessed 1 April, 2014

Figure 3: Average real income of the top 1% of the distribution in Australia, Canada and the United States



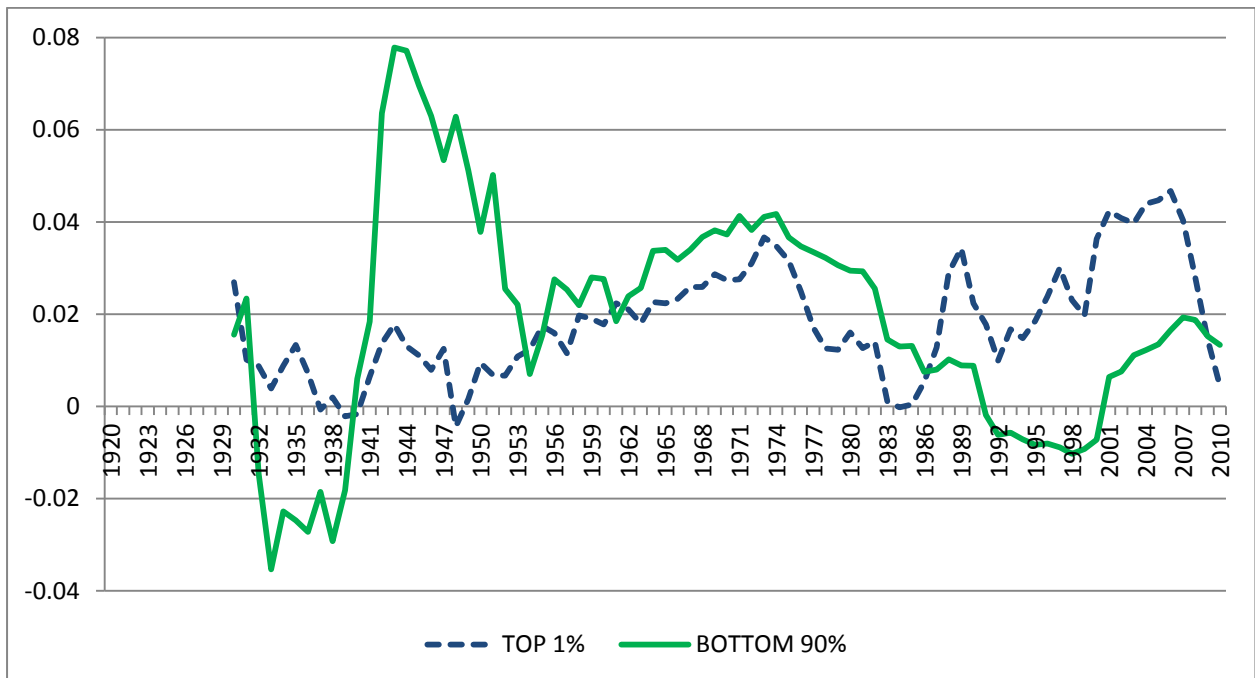
Source: The World Top Incomes Database, <http://topincomes.g-mond.parisschoolofeconomics.eu/>, accessed 1 April 2014; 2011 Dollars National Currency.

Figure 4: Real income growth rates in the United States - Top 1%, bottom 99% and 90%, 10-year compound annual rate



Note: Average income per tax unit. Real income is expressed at 2011 US Dollars. Tax units are families (see source for details). Source: The World Top Incomes Database, <http://topincomes.g-mond.parisschoolofeconomics.eu/>, accessed 21 May 2013 and 1 April 2014

Figure 5. Real income growth rates in Canada - Top 1% and bottom 90%, 10-year compound annual rate



Note: Average income per tax unit. Real income is expressed at 2011 Canadian Dollars. Tax units are individuals (see source for details). Source: The World Top Incomes Database, <http://topincomes.g-mond.parisschoolofeconomics.eu/>, accessed 21 May 2013

The rapid growth of real pre-tax market incomes of the bottom 99% in Canada and the United States after 1940 started from a situation in which:

- the mass unemployment of the 1930s was being rapidly absorbed into wartime production;
- price and wage controls during World War II compressed wage differentials and profit margins;
- the relatively high share of workers employed in agriculture meant that rural out-migration could have a significant impact in boosting average wages and productivity;
- low secondary and post-secondary enrolment meant that human capital investment had substantial room for increase and high marginal returns;
- capital deepening in sectors catching up to the technological frontier could produce substantial increases in productivity in those sectors¹⁶;
- rising unionisation rates produced, for nearly thirty years, a labour movement with significant influence both in workplace bargaining and in social policy determination;

As well, the percentage of women in paid jobs was low in the 1930s, implying lots of scope for rising female employment to have a big impact on household money income. In the political economy of social policy, the ‘hard left’ political option also had a “threat effect” on political elites – who agreed to progressive taxation and expanded transfer programs that recycled top end incomes.

Wartime mobilisation and controls were “once only” events. The structural changes of economic development – urbanisation, female labour force participation, widespread secondary and post-secondary education – had large impacts on family incomes but were spread over a number of years, and showed up as an increase in the growth rate of average incomes. However, these structural changes were completed well before 1980.¹⁷

Overall, balanced growth is not the norm. The thirty year period 1950-1980 appears to be a happy accident of history during which income growth rates at the top and the bottom were roughly equal. Balanced growth then made it plausible to ignore changes in the income distribution and to emphasise the steady state properties of economic systems inhabited by ‘representative agents’ – but this period was a historical anomaly. However, the last thirty years (i.e. from the 1980s to the 2010s) have seen the emergence of distinctly higher income growth rates for the top 1% compared to everyone else – unbalanced growth has become the ‘new normal’.

¹⁶. By 1946, in Canada and the US, the Depression and years of wartime diversion of production had left a substantially depleted capital stock, embodying aged technologies and implying large gains to new investment. Hobsbawn (1994) is representative of the historians who argue that many of these structural trends were similarly operative, albeit with differences in timing and intensity, in other OECD nations.

¹⁷. Although the decline of unions and the demise of the threat effect of the hard left are in principle not irreversible structural changes, both have been, in these three countries, unambiguous.

Implications of Continued Growth Differentials

A differential in annual income growth rates of 2.5 to 3.5 percentage points does not sound like much. Indeed, if the differential is short-lived it does not amount to much. But as Table 3 shows, if the differential in the income growth rate between the top and the rest of the distribution continues, ever-larger absolute differences in income and an ever-increasing income ratio are inevitable. In the United States in 1984, the median household income was \$ 47,181, which grew by 0.279% annually to \$ 51,017 in 2012.¹⁸ The top 1% average income (excluding capital gains) was \$ 384,000 in 1984, which grew to \$ 1,022,000 in 2011 – a compound annual rate of 3.496% per year.¹⁹ Over this 28 year period, the income gap therefore increased from about \$ 337,000 in 1984 to \$ 971,000 in 2011, i.e. the dollar gap roughly tripled in size. If their 1984-2012 compound annual growth rate of 3.5% were to continue for another 20 years, the average income of the top 1% would rise to \$ 2,032,000 in 2032. If the median income growth rate observed in the past were to continue at the same rate (0.28%), median household income would be \$ 54,000 in 2032, for an income gap of \$ 1,978,000. The continuation of these growth rates would imply that in 2032 the average annual income *increase* of the top 1% (\$ 71,108) will very significantly exceed the income level of the median household (and be about 200 times larger than the annual income increase of the median household – i.e. \$ 151). As Table 3 shows, the ratio of top 1% average income to median income more than doubled (8:1 to 20:1) from 1984 to 2012; a continuation of the same growth rates implies that it will almost double again (to 38:1) by 2032.²⁰

Figure 6 plots the gap between the average real income of the top 1% (excluding capital gains) and real median household income. In addition to the actual ratio observed in 1984-2012, two projections are presented. The first assumes that the compound income growth rate of the top 1% (3.5%) and the growth rate of median household income (0.28%) continues in the future at the rate experienced in 1984-2012. The second projection uses 1984 to 2008 as base period, during which time top 1% incomes grew at the higher rate of 3.9%.

¹⁸. Census Bureau Table H-8, Median Household Income by State: 1984 to 2012. All figures expressed in 2012 U.S. dollars.

¹⁹. The best year so far for the top 1% was 2007, when their average income was \$ 1 056 905 (excluding capital gains, 2012 dollars, taken from World Top Incomes Database). Calculated from 1984 to 2007 (the last full year before the Great Recession), the compound annual growth rate of average top 1% income was 4.4%.

²⁰. Income growth rates are quite unequal within the top 1% (see Osberg: 2014, Figure 3), implying increasing inequality within the top 1%.

Table 3. Implications of income growth at historic rates – United States

Real income in US dollars at 2012 prices

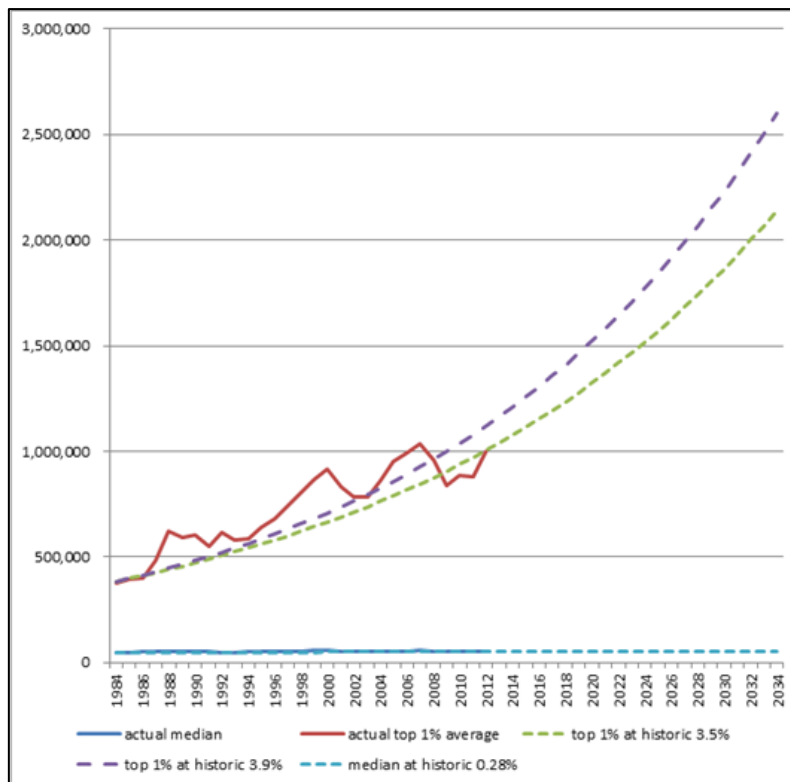
	Median Household Income	Top 1% average Income	Absolute Gap	Top 1% annual income gain	Ratio of top 1% to median income
1984	47 181	383 919	336 739	13 421	8.1
2012	51 017	1 021 761	970 744	35 720	20.0
2032	<i>53 943</i>	<i>2 031 476</i>	<i>1 977 533</i>	<i>71 108</i>	<i>37.7</i>
Average annual growth Rate 1984-2012	0.28%	3.5%			

Note. Real incomes of the top 1% of taxpayers and of the median household in 2012 are assumed to grow over the period 2012 to 2032 at the same compound rates observed over the period 1984-2012, i.e. 3.5% for people in the top 1% of the distribution and 0.28% for the median household.

Sources: The World Top Incomes Database <http://topincomes.g-mond.parisschoolofeconomics.eu/> accessed 1 April 2014; Census Bureau Table H-8. Median Household Income by State: 1984 to 2012.

Figure 6: Historical and projected real income in United States, 1984-2032

Median Household and average income of the Top 1%



Source: The World Top Incomes Database <http://topincomes.g-mond.parisschoolofeconomics.eu/>.

Will market processes restore balanced growth?

“Increasing inequality over time” and “more rapid income growth at the top” are two different ways of describing the same reality. Stabilising the income distribution in the United States, Canada and Australia requires income growth rates to be the same – either an acceleration of the income growth rate of the bottom 99% or a decline in the income growth rate of the top 1% could accomplish this result. Is enough of either likely to happen as a result of spontaneous “equilibrating” market forces?

Stability in capital/labour shares is not the main issue in the current context, because much of the recent increase in top end incomes has taken the form of higher salaries and other labour income. A plausible model of this process starts from the fact that pay at the top of the corporate heap depends on firm’s size (Gabaix and Laudier, 2006, 2008). For monopolistically competitive firms, size depends on the scale of the market and since 1980, many firms in Canada, the United States and Australia which previously operated on a national scale have expanded into global markets as trade barriers and transportation costs have fallen, and managerial innovations, telecommunications and information systems have made effective management of large, dispersed organisations more feasible. As the scale of global operations and the size of potential profits grows, the top management team takes a share – and the rents to their hierarchical positions increase with their rank in the hierarchy and with market size (which is growing on average at the global growth rate).

In entertainment and sports, audience size has similarly grown, at least for those at the top who can now reach global audiences. The outsize returns obtained at the top end of financial services also rely on the scale of financial markets and on individuals’ placement in the hierarchy of market differentiation – again rents to top hierarchical positions (which Rosen (1971) called ‘superstar’ status) increase with scale of market supplied. Although individual markets and firms will grow at different rates, to a first approximation the average rate of growth of market size, and therefore the average rate of income growth of ‘global’ players, will be driven by the rate of growth of global markets, which has been significantly faster than domestic growth in Australia, Canada or the United States.²¹ Since one can expect continued rapid growth in China, India and many other nations (including sub-Saharan Africa), there is every likelihood that the growth rate of global markets will continue to be considerably greater than that of domestic demand for decades to come.

As global markets grow, and as the firms servicing those markets expand, top corporate pay packages grow, but there is little real evidence that their rate of income growth is driven by a similar rate of growth of their executive skills – administrative hierarchies are a type of team production where accurate measurement of an individual’s true marginal product is rarely feasible. A more plausible model of top corporate pay determination is Lydall’s (1959, 1968) model of pay in hierarchies, which has long predicted that the steepness of the upper tail of the distribution of earnings²² will depend on hierarchical rank,

²¹ For the 25 year period 1987-2012, the simple average of annual growth rates of world GDP was 4.9%, compared to Australia (3.3%), Canada (2.5%) and the U.S. (2.6%), see GDP growth (annual %) in World Bank Data Indicators.

²² Pareto's "Law" can be expressed by the equation: $\log N = \log K - \alpha \log x$ where x is any particular level of income, N is the number of people with incomes equal to or greater than x and K and α are parameters. Lydall (1959) showed formally how α depends on the span of control in wage hierarchies and norms of relative wages. The Pareto distribution has long been found to provide a good fit to the upper tail of the income distribution and, as Atkinson et al (2011:13) noted, it implies that the average income of people with income greater than x is always equal to a constant multiple of x which is the

span of control at each level of hierarchy and wage norms. Norms of pay growth set at the very top of enterprises servicing global markets attenuate somewhat within those hierarchies as they trickle down to less senior members of top corporate management. However, norms are central to pay determination for top management because (1) they always matter hugely²³ and (2) at the top end of corporate and public sector hierarchies in rich countries, most needs for creature comforts have long since been satisfied. At this pay level, relative income is the remaining motivator of effort. Money income is the marker that indicates who is “winning” or “losing” in the competitive race for success, but “winning” – or at the very least “keeping up” – is the main event.

The rate of growth of compensation at the top of global corporations therefore sets the benchmark for the national private sector, which in time determines what their peers at the top of public sector hierarchies – e.g. university presidents and senior civil servants – come to expect as the “fair” rate of increase of normal remuneration for people in their sort of position. Hence, for “the globals and their peers”, who sit at or near the top of organisational and professional hierarchies, the rate of growth of globalised markets seems likely to assure continued increase in corporate scale and continued growth of top pay. As the pleasures of the globalised brands of consumer society are discovered by hundreds of millions of newly middle class households around the world, the rents available to monopolistically competitive firms grow and with them the salaries of their top management teams, with trickle down benefits for their peers.

For present purposes, the bottom 99% of workers can be thought of as “locals”, who are not linked to top-end internal labour markets, and whose pay growth and employment prospects depend on the aggregate supply and demand for labour within their own national and local labour markets. If unions could have effectively mobilised collective action they might have restrained the escalation of corporate norms of top pay (Western and Rosenfeld, 2011) and bargained for a share of increasing global corporate rents – but private sector union membership has declined significantly in all three countries over the last thirty years. Because global firms can usually site their production in many possible places around the world, international competition for new investment sets the growth of local labour productivity as an approximate upper bound to their rate of average income growth²⁴.

In this perspective, the long run constraint on the income growth rate of ‘locals’ is the local rate of labour productivity growth, while the long run income growth rate of ‘the globals and their peers’ depends on the rate of growth of global markets, which is significantly higher. While a full discussion of this perspective would require much more space, it is outlined here to indicate that at least one coherent view of the world is consistent

inverse of α [more exactly = $\alpha / (\alpha - 1)$]. Hence, the inverse of the coefficient α in a Pareto distribution is a measure of the steepness of the income pyramid, and World Top Incomes Data Base data indicate that it increased by about half between 1984 and 2012 in the U.S. (from 2.012 to 2.934). Pareto (1896) himself believed α to be an immutable constant – a conclusion that Creedy (1977) showed to be unwarranted, even with Pareto’s own data.

²³ A classic early statement is provided by Doeringer and Piore (1971).

²⁴ Restrictive monetary policy and slack local labour markets can mean, as in Canada 1980-2000, that average real wage growth is less than productivity growth. In the resource sector, the immobility of resource extraction activity can enable some local workers to extract part of the resource rent, to an extent that depends on the speed of resource development and the level of unionisation.

with a continuation of the long-run differential between the growth rate of market income for the top 1% and the growth rate of market income for everyone else.

As unbalanced income growth continues, it will have general equilibrium effects and socio-political impacts which will increase over time, as the size of income gaps increases. Since marginal tax rates on top incomes have fallen over the last thirty years, the increases in pre-tax market incomes described thus far have produced even larger increases in disposable post-tax income, which must be either consumed or saved.

Macro-Economic Implications of Increasingly Unequal Savings Flows²⁵

The top 1% may choose to hold some of their savings directly, as real assets, but unless all of their incremental savings always take this form, rising incomes at the top of the distribution imply an increasing flow of their savings²⁶ into financial markets. But financial instruments are inherently both an asset to the holder, and a liability to the issuer. In order for the increasingly affluent to acquire ever more financial assets, somebody else has to acquire ever more financial liabilities. Indeed, macro-economic balance requires it. Because aggregate expenditure has to equal aggregate income, whenever one household abstains from spending some of their increase in income and saves by acquiring financial assets, somebody else has to spend more than their income and acquire financial debt. By borrowing and spending, debtors – both households and governments²⁷ – balance the real flows of the economy. As they do so, they simultaneously increase their stock of debt.

When borrowing and aggregate spending are insufficient, at the going real rate of interest, to balance income and expenditure, there is downward pressure on interest rates and aggregate output. Figure 7 is reproduced from King and Low (2014), who documented the decline in the world real interest rate, particularly in the post 2000 period. As the general level of interest rates declines, investors seeking a target rate of return must assume increasing risk in their asset portfolios.

²⁵ The implications for social stability of increasing consumer spending by the top 1% are discussed in Osberg (2014).

²⁶ Dynan et al (2004) conclude that the marginal propensity to save increases with income – but the argument here only requires that the marginal propensity to save of the top 1% is positive and that some of that increase in saving is in financial assets. Increased savings by the affluent is quite consistent with greater consumption, and net dissaving, by the poorer 99%, implying a declining average *national* savings rate. Cynamon and Fazzari (2014) document the accumulation of liabilities by the bottom 95% that preceded the Financial Crisis of 2007.

²⁷ The Kumhof and Ranciere (2010) model has no explicit government or corporate sector, but Kumhof has noted that government can be seen as an intermediary in debt, as the people in the top 1% buy government bonds which finance public sector deficits and thus sustain current public consumption – while society as a whole incurs corresponding future tax liabilities. (private communication- September 2012). Similarly, the corporate sector is in this view an intermediary between shareholders and real economic activity – the affluent could, for example, save either by personally building a steel mill or by buying shares in a company that builds a steel mill – the important issue for systemic financial leverage is how much they also lend to the other 99%.

Figure 7: Spot Yields on 10 Year Bonds – G7 excluding Italy, Quarterly, 1985-2013



Kumhof and Rancière (2010, 2012, 2013) have noted that both the Great Depression of 1929 and the Great Recession of 2007-2008 were preceded by a sharp increase in income and wealth inequality and by a similarly sharp increase in debt-to-income ratios among lower- and middle-income households. They argue that when those debt-to-income ratios began to be perceived as unsustainable a financial crisis became inevitable – only needing a trigger. Using a dynamic stochastic general equilibrium model, they show (2010: 22) that the key mechanism, reflected in a rapid growth in the size of the financial sector, is the recycling of part of the additional income gained by high income households back to the rest of the population by way of loans, thereby allowing the latter to temporarily sustain consumption levels and thereby maintain macro-economic balance.²⁸ However, continued stagnation in the incomes of poor and middle income households means that loans grow faster than incomes and as leverage keeps growing so does the probability of a major crisis, with severe implications for the real economy.²⁹

This key idea – i.e. that ever growing incomes at the top produce an ever increasing flow of loanable funds, which eventually produces declining interest rates, increasing financial fragility, a crisis in financial markets and a recession in the real economy – has a

²⁸ Kumhof et al. (2012) argue that poorly developed internal financial markets in developing nations imply that the affluent there have bought U.S. financial assets, thereby financing US current account deficits.

²⁹ The key issue for debt fragility is not stagnancy in lower end incomes but the fact that there is a differential in growth rates and some inter-sectoral lending. If top 1% incomes grow at r_1 and bottom 99% incomes grow at r_{99} and $r_1 > r_{99}$, then if net financial claims of the top 1% on the rest of society [A_1] are a non-decreasing fraction of income, $\partial A_1 / \partial t \geq r_1$. But financial assets are the liabilities of their issuers – either other households [D_{99}] or governments [D_G] – so $A_1 = [D_{99} + D_G]$. Because the total liabilities of other agents grow at $\partial A_1 / \partial t \geq r_1$ and $r_1 > r_{99}$, the growth of liabilities is faster than the private income growth rate of the 99% or the total tax base (which is an income share weighted average of r_1 and r_{99}), hence debt/income ratios increase over time at the bottom of the income distribution.

long history. In the 19th century, Marx argued strongly that cyclical instability was inherent to capitalism and “under-consumptionists” like Hobson³⁰ ascribed the growth of British imperialism and overseas investment in the late 1800s to inadequate domestic absorption of the potential output of capitalism. Milanovic (2009) and others have also argued that the root cause of the 2008 financial meltdown is higher income inequality.³¹

If this process of borrowing and increasing financial leverage by the bottom 99% does not occur (perhaps because of more stringent regulation of financial institutions) the risk of future financial crises is replaced by the reality of insufficient aggregate demand and downward pressure on interest rates (see Figure 7). Summers (2013, 2014) has therefore recently argued that the U.S. and European economies now have, as a result, a structural tendency to secular stagnation.

Well before the 2008 recession, Leamer (2007: 1) argued that “housing starts and the change in housing starts together form the best forward-looking indicator of the cycle”. Periodic housing booms are fed by the cost and availability of credit, and by self-reinforcing expectations of future increases in house prices. Owner-occupied housing is the main asset type held by middle income households and home mortgages enable financial leveraging to become a normal middle class phenomenon, but middle class net worth is very sensitive to house price changes³² and interest rates, both of which are quite variable. As households become more indebted, their probability of default increases and financial assets become increasingly fragile.

The ‘debt stability’ equation has been most often used in the context of public sector finances but its logic is equally applicable to households and the private sector. It starts from the accounting identity that the face value of the stock of an agent’s debt at a point in time is equal to the previous period’s debt plus interest accruing minus any surplus of income over current spending which is used to pay back the debt.³³ The burden of debt depends on its size relative to income. For public finances, the Debt to GDP ratio is the crucial economic statistic, while each household confronts their personal Household Debt/Household Disposable Income ratio. When income grows faster than debt, the Debt/Income ratio declines while, if debt and income grow at the same rate, their ratio is constant. In either event, debt is on a sustainable path. However if the Debt/Income ratio is increasing over time, an ever larger fraction of expenditure must go to servicing the debt rather than financing

³⁰. See Marx (1894) Vol. 3, Chapter XV; Hobson (1900, 1905). Amdekar (2012) provides a modern re-interpretation.

³¹. Bordo and Meissner (2012) provide a negative answer to the general question: “Are business cycle downturns always preceded by increases in inequality?” – but this is not the same question as whether increasing inequality caused the 1929 and 2008 recessions.

³². Wolff (2011: 39, 125) finds that in 2007, the principal residence was 65.1% of the wealth of the middle three income quintiles. The 2001-2007 boom in housing prices swelled their paper values of these assets but left them highly exposed to the ensuing bust. As a result, between 2007 and 2009, median wealth (net worth) fell by 35.1%.

³³. Often called the “Primary Balance”, and here labelled PB_t . For the public sector, $PB_t = (\text{Tax}_t - \text{Program Expenditures}_t)$; for households $PB_t = (\text{Household Disposable Income}_t - \text{Household Expenditure on Consumption}_t)$

current spending, a process which is eventually unsustainable.³⁴ Equation (1) summarizes debt dynamics.

$$(1) \quad \Delta (D/Y)_t = (r_t - g_t) * (D_{t-1}/Y_t) - (PB_t / Y_t)$$

D_t = Debt in period t

r_t = average rate of interest in period t

PB_t = Excess of Income over Expenditure (Primary Balance) in period t

Y_t = Income

g_t = growth rate of income

$$\Delta (D/Y)_t = \text{change in Debt/Income ratio in period t}$$

In equation (1), the first term makes clear how much debt stability depends on the interaction between the overhang of debt from the past (D_{t-1}/Y_t) and the interest rate / growth rate differential ($r_t - g_t$). Whenever the interest rate exceeds the income growth rate (i.e. when $r_t - g_t > 0$), past debt is compounding faster than income is growing – and when the stock of past debt starts to feed on itself in this way, expenditure surpluses (PB_t) must be continual and increasing just to stabilise the Debt/Income ratio.

The dilemma for the public sector is that recessions force governments into deficit, both because tax revenues fall and spending increases, thereby adding to the stock of government debt outstanding. Equation 1 implies that when growth rate is less than the interest rate and the Debt/GDP ratio is large, big increases in revenues and/or cuts to expenditures are necessary to offset the compounding of past debt. The macro-economic implication of additional fiscal drag is reduced GDP growth, thereby worsening the Debt/GDP ratio. As long as interest rates on new debt are kept near zero, the cost of refinancing is minimised. However, any eventual increase in interest rates will have huge implications for budget balance. Under “Quantitative Easing”, a significant fraction of the public debt of the United States has been purchased by the Federal Reserve – i.e. partly monetised. However, how long can monetisation of the public debt (i.e. printing money) go on?

Unbalanced income growth rates thus produce ripples of instability which lead to unpleasant choices. Fiscal austerity may stabilise the public budget balance, at the cost of depressed growth, rising unemployment and social unrest. Deficit financing can be monetised but with risks of inflation. A low interest rate monetary policy can maintain consumer demand and prop up the housing sector, but the longer it continues the greater is the indebtedness of households and the vulnerability of housing prices and household finances to interest rate increases. If and when inflationary pressures are combatted, monetary authorities will have to use the policy lever of an increase in interest rates (r_t) to reduce the rate of growth of aggregate demand and household incomes (g_t) – thus widening the differential ($r_t - g_t$) at both ends. Equation (1) tells us that when the Debt/Income ratio is large (as it now is – for both governments and households) and the interest rate exceeds the income growth rate ($r_t > g_t$), expenditure cuts will also have to be large in order to create

³⁴. More exactly, debt finance charges ($r_t D_t$) increase if $\partial D_t / \partial t > - \partial r_t / \partial t$ (remembering that $r_t \geq 0$, so interest rates cannot decline forever). When interest rates on issued debt are zero or near-zero, or when the central bank creates the money necessary to purchase debt issue (which amounts to the same thing), the public sector deficit can be insulated from a rising Debt / GDP ratio – but neither condition is long-term sustainable.

continuing current surpluses³⁵ big enough to prevent the debt/income ratio from compounding unsustainably.

In the public sector, large expenditure cuts to social security and other programmes could help balance the annual budget. However, cuts to the ‘social wage’ will accentuate the long term relative impoverishment of middle and lower quintiles of the income distribution, reduce further the slow growth of their real incomes and, as equation 1 shows, make household ‘deleveraging’ much more difficult. If all sectors attempt to deleverage simultaneously, a recession must be expected, in which case even slower real income growth at the bottom will accentuate rising household income inequality and reinforce the imbalances of saving and consumption which initially helped create financial instability.

To summarise, when income growth rates are unbalanced, one macro-economic instability leads to another – and pressures intensify over time as the ever increasing income share of the top 1% implies their savings flows are an ever increasing fraction of GDP. Because financial and real flows are interdependent, and because flows accumulate to become stocks, an imbalance in income growth rates produces changing flows of consumption and savings, which compound into rising stocks of financial wealth at the top and greater stocks of indebtedness elsewhere. Financial fragility then increases the risk of financial crises, with big impacts on real economic activity. When governments respond with deficit spending, this accumulates as public debt, which itself becomes increasingly fragile whenever interest rates exceed the growth rate. But if interest rates are kept low to stimulate consumer demand, households acquire levels of private debt that they will be unable to finance if/when interest rates return to more normal levels.

3. Social Security in the New Normal

In Canada, Australia and the U.S., it has long been apparent that when baby booms are followed by birth rate declines, younger birth cohorts will be smaller in size, and there will eventually be big demographic pressures on the finances of public pensions. Migration flows, increasing life expectancy and trends in labour force participation among the elderly are also important, complicating demographic influences on the sustainability of public pension designs, but sometimes the macro-economic context can help make choices easier. When interest rates are high and stock markets are rising strongly and steadily, defined contribution plans and private savings look like plausible alternative mechanisms for financial security in retirement. When economic growth can be expected to be strong and steady, government budgets are less likely to come under future pressure to limit public pension entitlements. And when income growth is roughly equal throughout the income distribution, the stability of income inequality may mitigate distributional conflict. However, although these conditions were approximately true in many countries during the expansion years of social protection spending between 1950 and 1980, they have not been the new normal of recent decades in several nations, such as Canada, Australia and the U.S.

³⁵ If, for example, the real interest rate on debt returns to 4% and real growth is 2%, a debt/GDP ratio of 80% implies that stabilising the debt/GDP ratio means taxes must exceed program spending by at least 1.6% of GDP (which would be about \$ 240 billion in the United States). Hence, a crucial issue for the stability of public finances is whether, and by how much, interest rates will return to a level greater than the growth rate (i.e. $r_t > g_t$).

Over and above long-standing demographic pressures on social security, what might a new normal of the macro-economy imply? All macro-economic projections and forecasts have inherent uncertainties and are dependent on critical assumptions about unknowable variables³⁶. It would be misleading to oversell the level of certainty associated with the analysis of Section 2. However, it was presented in order to make the point that it should not be casually assumed that the macro-economic context for social security policy will automatically return to the environment of the years of easier choices. If Section 2 is at all correct, lower financial market returns, increasing cyclical instability and increasing acrimony over widening income gaps are more likely to be the context of the next few decades – what might this imply for social security?

Of course, from the perspective of reducing systemic instability, it would be a plus to enhance social security³⁷. Figure 1 showed the large share of GDP now accounted for by social expenditures which are not derived from market processes, and therefore not directly exposed to market instability. By providing a stable income source that is a long-term function of individuals' past earnings levels, defined benefit public pension plans build inertia into the economic system, thereby reducing both the economic insecurity of individuals and the cyclical variability of aggregate consumption expenditures. By contrast, when defined contribution pension plans and private individual savings are the chosen mechanisms for assuring retirement incomes, portfolio values fluctuate with financial markets, implying corresponding destabilizing pro-cyclical wealth effects on aggregate consumption, and therefore destabilizing impacts on aggregate economic activity. Hence, a larger role for social security relative to defined contribution plans or private savings would facilitate economic stability – and the introduction of Social Security in 1935 as part of Roosevelt's "New Deal" reforms was an important part of the policy package that arguably stabilized U.S. economic dynamics for roughly 50 years after the Great Depression of the 1930s.

However, regardless of whether expansion of Social Security is desirable, what is likely to happen? Is the macro-economic instability produced by increasing income inequality likely to produce pressures for policies which will aggravate or mitigate systemic instability? Specifically, will there be pressures to increase or to decrease the size and scope of public pension arrangements?

In Section 1 this paper argued that few people save much voluntarily for retirement even in a pension system such as Canada's where middle class replacement rates are low. Most retirees depend mainly on income from public pensions – which both limits their exposure to financial market risk and implies that they are exposed to political risk in the possible alteration of public pension entitlements. What might a new macro-economic normal add to debates over the design of public pensions? Forecasts of the political process are even more uncertain than economic projections, but the implications of the new normal may well

³⁶ For example, the future rate of technical progress and productivity growth is a critical determinant of long term growth rates and projections of future income but is inherently unknowable. Gordon (2012) argues that extrapolation of past trends is simplistic because, among other things, rates of productivity growth must be expected to decline in future decades as research and development expenditures encounter decreasing marginal returns. He suggests that growth in consumption per capita for the bottom 99 percent of the U.S. income distribution could fall below 0.5 percent per year for an extended period of decades.

³⁷ As well, since the instabilities created by increasing savings inequalities are driven by increasing inequalities in after-tax income, they can be mitigated by higher rates of income tax for top income earners.

depend on: (1) the interests and influence of those initially adversely affected; (2) the tension between the politics of envy and the politics of solidarity; (3) increased pressures of short term economic fragility.

3.1 **The aggrieved affluent:**

When financial markets become more unstable, and market rates of return decline, the people who are initially most affected are those with most at risk in these markets – i.e. the relatively affluent. As Table 3 illustrated, even though Canadians have known for 40 years that their public pensions will provide only a very basic income level in old age, only a few have acquired much by way of supplemental private savings. Most Canadians will be nearly entirely dependent on public transfers in their old age, which implies that it is the affluent few who are directly affected most by instability and lower returns in financial market³⁸.

Using Statistics Canada’s LifePaths micro-simulation model, MacDonald and Osberg (2014) compare retirement income forecasts for Baby-Boomers born 1951-1966 (who turn 65 between 2016 and 2031) across three alternative financial market scenarios – [1] no financial crisis; [2] historical rates up to 2012 (including financial crisis) followed by a return to pre-2007 returns and [3] historical rates up to 2012 followed by a new reality of long-term low financial market returns³⁹. The baseline scenario [1] is clearly unrealistic, since we know the financial crisis did happen, but it illustrates the expected future that might plausibly have been envisaged when households made their financial decisions prior to 2007. Figure 5 shows the impact, relative to pre-2007 baseline, of the Financial Crisis and a transition to New Low Normal financial returns by income group – because the poor have fewer financial assets, the percentage losses at the top of the income distribution are far greater than at the bottom.

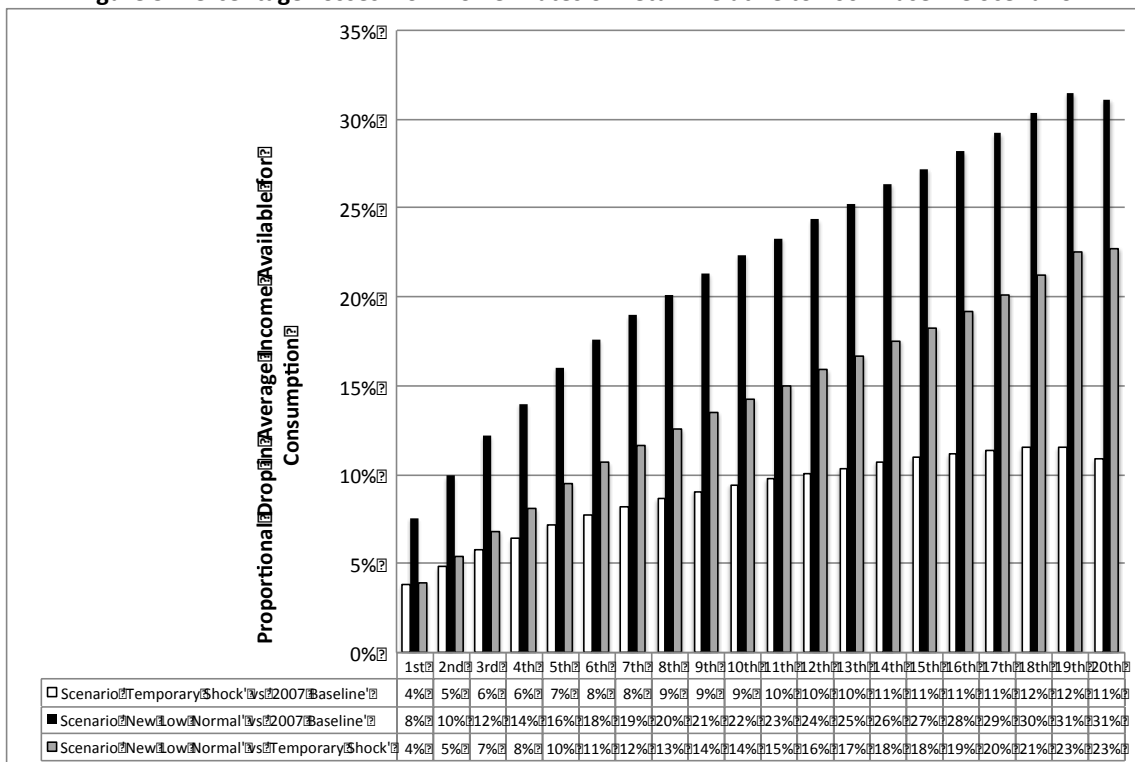
Precisely because the poor and most of the middle class in Canada are dependent primarily on public pensions, they are not directly affected as much by low financial market returns. Rather, their vulnerability is to political instability and pressures for ‘reforms’ to social security. The increases to public deficits and the public debt caused by increased financial market instability can be expected to produce periodic political pressures for austerity in order to restore budget balances. ‘Entitlement’ programs like old age pensions are clearly on the table in these budgeting debates – as attested by the many proposals in the United States to limit “entitlement” program spending.

Those people who saved prudently for their retirement prior to 2007 with the expectation of receiving a 7% annual return on their assets did “what they were supposed to do”, sacrificing current consumption for the promise of future income security. Lower rates of return now mean that those promises are unfulfilled. It is reasonable to expect them to feel aggrieved. But when it is the relatively affluent who feel aggrieved by changes, what is the likelihood of support for broadly based pension enhancements? Who is likely to win and who is likely to lose in this political economy of pension reform?

³⁸ Compulsory superannuation plans, as in Australia, clearly put many more individuals at risk of lower market interest rates.

³⁹ See Appendix 2

Figure 5: Percentage Losses from Lower Rates of Return relative to 2007 Baseline Scenario



Notes: Percentage decline by vintiles in average income available for consumption, age 65 to death, vintiles ranked according to real working-life after-tax income.

(3.2) The politics of envy vs. the politics of solidarity

An aging population means that an increasing fraction of the electorate will soon need adequate pension coverage. But in North America the declining coverage of traditional defined benefit pension plans also means that fewer now have it.⁴⁰ Lower interest rates now imply an increase in the present value of defined benefit plan liabilities, putting pressure on the few remaining private sector defined benefit plans to cut benefits or restrict eligibility. As already discussed, few Canadians saved much for their retirement, even in the days of higher interest rates, and a new normal of lower market rates will mean that many who might have thought they had enough saved in defined contribution plans will find themselves disappointed. What policy pressures can one expect?

When only a fortunate few have the old age security that everyone needs, is it the politics of envy (“Why should they get security when I cannot?”) or the politics of solidarity (“We all need security, so we should all get it.”) which will dominate the narrative?

In this context, the fact that remaining defined benefit plans are concentrated in the public sector means that those who now have adequate pension coverage are both a relatively privileged and an easily stigmatized minority. Ending “Gold-plated Pensions for

⁴⁰ In 2010, only 24.4 % of Canadian private sector workers had an employer pension plan in Canada (39.5% in the U.S.) – of these plans, only 63.8% were defined benefit plans in Canada (31.9% in the U.S.). This implies that only 15.6% of Canadian private sector workers (12.6% of American) have a defined benefit employer sponsored pension plan in addition to CPP/QPP or Social Security. (MacDonald and Osberg, 2014, Table 2)

Underworked and Overpaid Bureaucrats Paid for by Hard-Working, Over-Taxed Citizens” can become an easy political slogan – one which has become increasingly common. It can produce pressures to ‘level down’ in benefits – even if the vast majority of voters have a direct and increasingly immediate interest in ‘levelling up’.

Even if most Canadians and Americans would end up better off in their retirement years if a politics of solidarity could produce a ‘levelling up’ in their pension entitlements, this outcome requires an institutional framework of mobilization and a narrative of social cohesion if it is to happen. Within Canada and the U.S., the trade union movement has historically been an important advocate for adequate pensions, but private sector union coverage is now down to 16.1% in Canada and 6.7%, in the U.S.. In both countries, the “Generational Accounting” conceptual framework has also, for some time, encouraged the idea that some birth cohorts are taking advantage of other cohorts (specifically, the hypothesis is that “Baby Boomers” are exploiting everyone else). Myopic and ill-conceived as it may be⁴¹ this narrative of generational conflict focusses on differences in the immediate personal advantage of each generation, and presumes the absence of any altruism between generations. It is a very different discourse than the traditional narrative of the intergenerational social contract between all citizens based on communitarian conceptions of national identity⁴². It remains to be seen which narrative will dominate politically.

However, if Section 2 is accurate in its predictions of increasing frequency of cyclical crises, the debates between narratives of social policy will recur more often – i.e. the political risk associated with public pensions will increase. In a steady state growth world, one can hope that if the parameters of old age security policy are set well, society will not to have to revisit the discussion very often. But if unbalanced growth produces more frequent financial crises and real recessions, with consequent recurrent pressures on public finances, then one can expect debates on “affordable” public pension design to recur more frequently. These debates will inevitably revisit perennial philosophical issues of personal responsibility and the role of the state. Equally inevitably, at each point in time, concrete policy proposals on benefits and premiums will have unequal real implications for different cohorts, because each cohort will then be at a different stage of the life cycle – which may make it easier to frame them within a generational conflict narrative.

(3.3) **Never the “Right Time”: Recurring Short term economic fragility**

When growth is strong and stable, it can be easier for governments to take the long view, partly because there are jobs available to provide income for any individuals adversely affected by reforms and thereby ease transitions. However, when growth is fragile, immediate macro-economic imperatives can easily trump initiatives with longer term implications – and pension policy is, by its nature, long term in its implications. If there is a new normal of uncertain aggregate growth, with little upward trend in median income, the more frequent

⁴¹ Osberg (1998) pointed out, for example, that, among numerous other deficiencies, generational accounting of the financial liabilities of government has nothing to say about the real bequest of capital stock which each generation inherits.

⁴² As Australia’s then Minister for Human Services put it: “The Age Pension is the oldest payment on the Commonwealth Government books. Since 1908, it has symbolised the Commonwealth’s pledge to all its people. No matter who they are, or where they live, people in our society expect to grow old in dignity and comfort. They want to live well. This is an aspiration that is widely shared. Our citizens get jobs, they pay their taxes and they raise their families in the faith that their country will support them in turn. This is the compact that binds us together, generation to generation. It still defines us as a people and a nation.” Carr (2012: 3)

debates over pension policy just discussed may become more likely to end with the conclusion that “now is not the right time” for fundamental reforms – i.e. a “status quo bias” in pension policy.

In terms of expanding or contracting the public pension system, this can cut both ways. However, the Canadian case provides an example of how perceived short-term macro-economic fragility can derail long term structural reforms. In Canada, there has long been a widespread recognition⁴³ that middle class Canadians face a retirement future with very little help from public pension plans. However, although the current federal government sent some early signals of support for expansion of Canada Pension Plan, these have been replaced by concerns that increased employer and employee pension contributions might slow job creation. In the context of stagnant employment growth in recent months and the general fragility of Canada’s recovery from the Great Recession, the decision has been made that “now is not the time” to expand the CPP. Of course, any decision to delay saving also implies delaying the benefits of saving – the longer CPP expansion is delayed, the greater the number of retirees who will have to make do with the current inadequate system. As well, one wonders when the “right time” for pension reform will arrive – i.e. when short-term concerns with macro-economic fragility will drop from the policy agenda.

4. Conclusion

This paper has presented some data on the variation of social spending across countries, the varying coverage of social security plans for retirement incomes and the feasibility of depending on savings in private markets for old age security. It then presented some evidence consistent with the view that unbalanced income growth rates are creating systemic instabilities in some modern market economies which may usher in a new normal macro-economic context for social security characterized by lower market rates of return, occasional financial crises and generally depressed growth.

A short summary of the role of social security in the new macro-economic normal would be “more crucial, but more contentious”. Unbalanced growth rates of income create systemic instabilities which increase the needs of individuals for stable sources of income, particularly in old age, when changes in labour market behaviour are no longer a feasible adaptation to change. Defined benefit social security plans with broad coverage of the population have great benefits for elderly individuals, in lessened economic insecurity, and for society as a whole, in enhancing systemic stability. Such plans are also costly and are, at any point in time, vulnerable to political risk. One can hope that future political debates will recognize adequately the long term benefits.

⁴³Kesselman (2010) summarizes the numerous current and past proposals to expand the replacement rate and income coverage of the Canada Pension Plan, and argues strongly that on essentially all grounds of comparison, a substantially expanded CPP clearly dominates other possible strategies to increase middle class economic security in old age.

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TABLE A2: Net pension replacement rates from public and mandatory private pension schemes

Percentage of individual earnings

	Total mandatory		
	0.5	1	1.5
South Africa	0.0	0.0	0.0
Indonesia	14.4	14.4	14.5
United Kingdom	61.7	38.0	27.2
Ireland	71.4	37.3	27.9
New Zealand	83.0	43.5	30.6
Mexico	56.2	31.5	31.3
Korea	64.8	45.2	34.2
Canada	71.5	50.6	35.2
Japan	54.3	40.8	35.7
Belgium	72.9	50.1	39.9
Czech Republic	79.7	50.7	40.1
United States	56.2	44.8	40.4
Chile	62.5	51.8	47.7
Norway	78.3	59.7	47.8
Switzerland	78.4	74.7	49.1
Australia	100.5	67.7	54.3
Germany	55.9	55.3	54.4
Russian Federation	55.1	55.1	55.1
Estonia	79.7	62.4	55.5
Slovenia	80.8	59.0	57.0
India	85.9	64.1	58.2
OECD34	79.4	64.1	58.3
Israel	108.5	83.2	59.1
Poland	60.6	59.5	59.1
France	75.9	71.4	60.9
Finland	71.3	62.8	63.2
EU27	80.0	69.1	64.3
Greece	92.5	70.5	65.0
Luxembourg	87.1	69.4	66.8
Denmark	117.5	77.4	67.4
Portugal	77.7	67.8	68.4
Brazil	60.2	63.5	70.3
Sweden	68.8	55.3	72.9
Iceland	93.3	75.7	73.3
Italy	78.0	78.2	77.9
China	106.4	84.7	78.2
Spain	79.5	80.1	79.8
Slovak Republic	88.1	85.4	84.7
Austria	91.2	90.2	86.2
Hungary	94.4	95.2	96.1
Turkey	103.9	93.6	97.2
Netherlands	104.8	101.1	97.2
Argentina	134.6	105.6	98.4
Saudi Arabia	109.9	109.9	109.9
Other major economies			

Source: OECD pension models.

Table
4.10

OECD (2013), Pensions at a Glance 2013: Retirement-Income Systems in OECD and G20 Countries

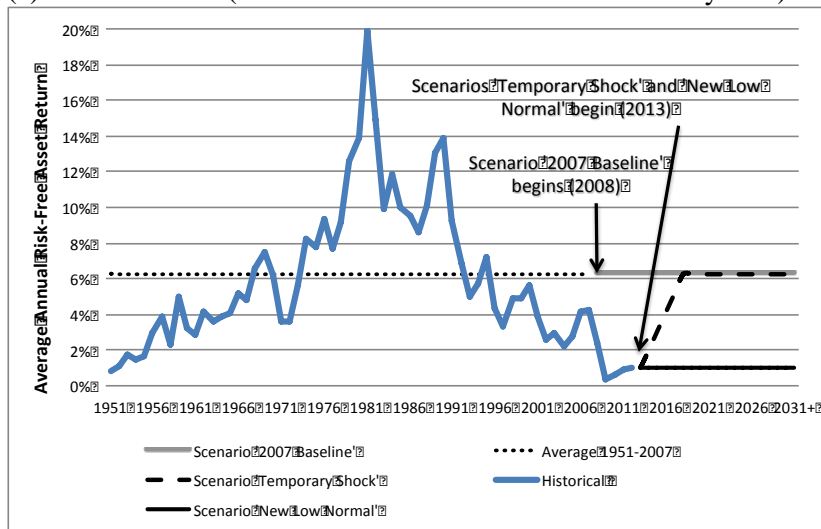
www.oecd.org/pensions/pensionsataglace.htm

Appendix 2 – Financial Market Scenarios

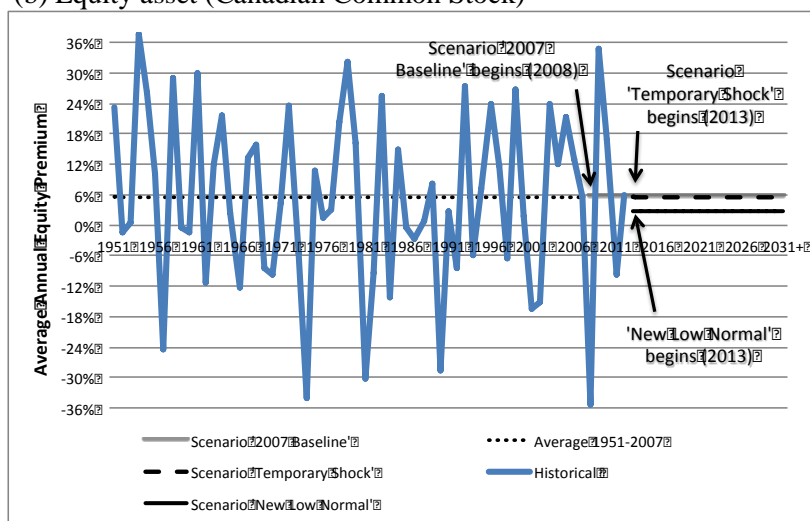
Scenario ‘2007 Baseline’ simulates an alternative history of no financial crisis by using the pre-2008 average of 6.2% for the risk free asset and 5.5% for the equity premium (for a total of 11.8% return on the equity asset). The average annual return on the assumed portfolio is therefore 9.6% (40% x 6.2% + 60% x 11.8%) in nominal terms and 7.3% in real terms. Scenarios ‘Temporary Shock’ and ‘New Low Normal’ continue to follow the historical returns up until and including 2012. Scenario ‘Temporary Shock’ thereafter fixes the equity premium at its historical level of 5.5% and linearly returns the risk-free asset rate of return to pre-2008 averages by 2018 (from 1% in 2013 to 6.2% in 2018 and beyond, at which point matching Scenario ‘2007 Baseline’). Scenario ‘New Low Normal’, on the other hand, continues in 2013 and beyond at the 2012 level risk-free asset return (1%) and assumes half the historical equity premium. The average annual nominal return on the assumed portfolio in the ‘New Low Normal’ Scenario is therefore 2.6% (40% x 1.0% + 60% x 3.7%) (0.3% real return).

Figure 1: Rate of Return Scenarios

(a) Risk-free asset (Government of Canada 3-month treasury bills)



(b) Equity asset (Canadian Common Stock)



Notes: ‘2007 Baseline’ (no financial crisis); ‘Temporary Shock’ (historical rates up to 2012 and return to historical averages thereafter); and ‘New Low Normal’ (historical rates up to 2012 and low returns thereafter).