SPECIAL REPORT

TD Economics

December 11, 2012

INCOME AND INCOME INEQUALITY – A TALE OF TWO COUNTRIES

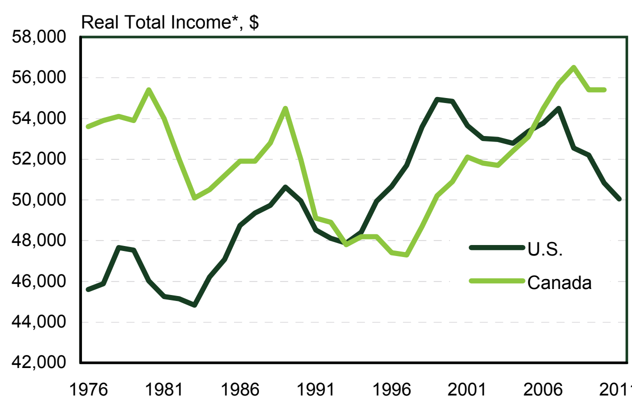
Highlights

- The devastating impact of the financial crisis has pushed U.S. median household income to a 16-year low. Meanwhile, in Canada, an economic outperformance over the 2000s and a milder impact from the recession has led to a strong pace of income growth since 1998. As a result, median household income in Canada has been higher than in the U.S. since 2006 and the gap between the two is now at its highest level (in favour of Canada) since the 1980s.
- Income inequality is both persistently lower and rising more slowly in Canada than in the United States. In fact, inequality in Canada has been flat since 1998, as measured by the Gini coefficient.
- The stable (rather than worsening) trend in Canadian income inequality may come as a surprise in light of the heavy global focus on the growing divide between the rich and the poor in recent years. A deeper dive into Canadian income distribution reveals strong income growth at the lower and higher ends of the spectrum, but a comparatively weak performance for middle-income families.
- Assessing shifts in inequality through the income statistics alone doesn't capture the whole story. For example, the Gini coefficient does not include the role real estate and financial assets have played in driving increasing inequality in household wealth. It also does not consider the concentration of income that has occurred among the top 1% or top 0.1% of Canadians.

For most of the last two decades, there has been a sizeable gap in median incomes between Canadian and U.S. families. At its peak in 1998, median household income in the U.S. was 10% higher than in Canada (see Chart 1 - all income figures in Charts 1-4 are before taxes, include government transfers and are adjusted for inflation). Since then, however, incomes south of the border have suffered in the wake of two recessions and have declined fairly steadily to a 16-year low in 2011. Meanwhile, a solid pace of household income growth in Canada since 1997 has not only helped to erase the gap with the U.S., but created a 9% income advantage as of 2010. Even after the impact of the 2008 recession, Canadian median household income remains just 2% away from its all-time high set in 2008.

This note walks through the evolution of the dramatic turnaround in Canadian household income fortunes since the low point in the early 1990s. We then take a step further by examining how these gains have been distributed across households at different income levels. With regards to income inequality, Canada has experienced a more favourable performance relative to the United States, although as we point out, there are many disconcerting trends such as the concentration of income and

CHART 1: MEDIAN TOTAL HOUSEHOLD INCOME CANADA VS. U.S.



*U.S. in $2011, Canada in $2010;
Source: U.S. Census Bureau, Statistics Canada

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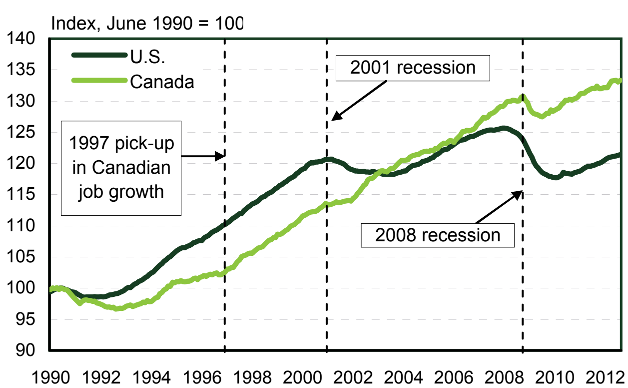
wealth among the nation's richest. Regionally, there is much variation across provinces where some of these trends in inequality are more prevalent than in others.

Remember the 90s?

In the wake of the 1990s recession, Canada's economic recovery was extraordinarily weak. In the first two years of the so-called "jobless recovery", the labour market added just 7,600 jobs each month – a paltry figure when compared to the 2009 economic recovery which recorded average monthly job gains more than three times larger (+24,000) in its first two years (Chart 2). Moreover, efforts by the federal government to combat the country's structural budget deficit in the 1990s contributed to an anemic pace of growth in government transfers throughout the 1990s (Chart 3). This exacerbated the already-declining trend in household incomes, particularly for lower and middle-income families who were both hit harder during the recession and were more dependent on government transfers relative to higher-income families. Accordingly, real median household income in Canada fell by more than 13% between 1989 and 1997 and (as we detail later) income inequality rose dramatically.

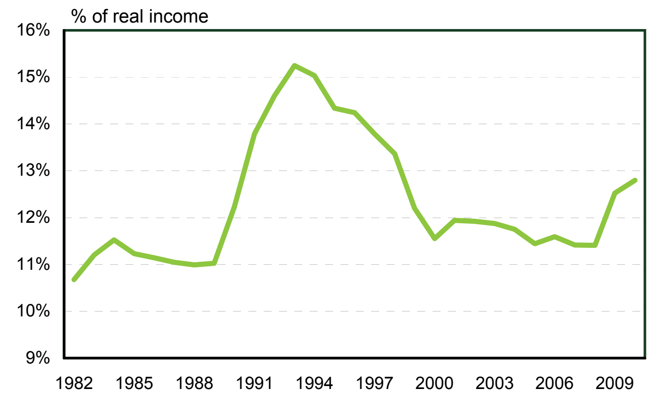
This was not the case for the United States. In contrast to the Canadian experience, U.S. job and income growth were extremely robust throughout the 1990s, despite the fact that the U.S. federal government was also reducing its structural budget deficit (both countries closed their deficits by 1998). Over those same eight years, U.S. real median income grew by 2%, which ultimately led to the aforementioned 10% gap between U.S. and Canadian incomes.

CHART 2: EMPLOYMENT INDEXES CANADA VS. U.S.



Source: BLS, Statistics Canada

CHART 3: GOVERNMENT TRANSFERS AS A SHARE OF CANADIAN HOUSEHOLD INCOME



Source: Statistics Canada

Closing the gap

By 1998, however, those trends began reversing. Canada set off on a period of economic outperformance that would persist until this day, which was largely responsible for the closing of the income gap, while the U.S. was the epicenter of two major recessions – the 2001 tech bust and the 2008-2009 financial crisis. Nominal GDP growth in Canada outpaced the U.S., on average, by roughly half a percentage point every year since 1998, owing to a boom in commodity prices over the 2000s, and significant gains in business investment and residential construction, all supported by declining interest rates and a superior fiscal position. Canada also experienced a milder recession in 2008 and a more pronounced recovery in both economic and job growth. The U.S. labour market shed roughly 8.75 million jobs over the course of the recession and has recovered less than half of those jobs even after more than three years into the economic recovery. By comparison, Canada's labour market shed roughly 430,000 jobs between late 2008 and mid-2009, but has gained more than 820,000 since then. So even with the significant decline in GDP in Canada, real median household incomes declined only slightly after 2008 and have since stabilized. On average between 1998 and 2010, real median household income in Canada grew by 1.2% per year, while America's declined by 0.1% per year.

When making international comparisons, comparing raw income levels between countries is a murky practice because of fluctuating exchange rates and differences in the cost of living. To account for these factors, one can adjust the data to reflect for differences in purchasing power. After making this adjustment (Chart 4), the story still holds, although the gap between U.S. and Canadian incomes peaked at a much larger 22% by 1998. But, the U.S. income advantage was eliminated in 2008 and Canadian median household income has exceeded that in America ever since.

Not all provinces created equal

As is often the case, Canada's provinces can't be painted with one brush. Table 1 shows changes in provincial median income since 1976, which was the first year that data are available. The commodity boom since the early 2000s has mostly benefited Alberta, Saskatchewan, and Newfoundland & Labrador due to the high natural resource concentration in those provinces. At the same time, a high Canadian dollar and weakness in forestry and manufacturing activity over the past decade has been a significant constraint on other regions. Real median household income in the Prairies has grown by almost 30% since 1998. In Quebec and Atlantic Canada, incomes grew just below 20% over that 13-year timeframe; meanwhile, Ontario and British Columbia each posted gains of about 10%. While a rising tide has indeed raised all boats, some provinces have nicer boats.

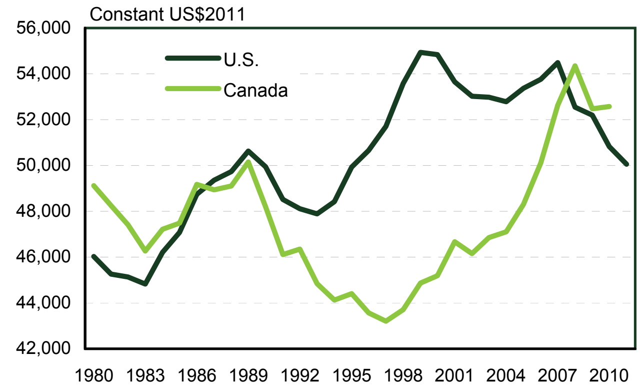
Keeping up with the Joneses: income inequality in the U.S. and Canada

While median income trends are important, they say little about how income is distributed across society. Income inequality is a topic that has received worldwide attention for many years, but is now a more pressing issue in the wake of the global financial crisis. This is particularly true

TABLE 1: REAL MEDIAN HOUSEHOLD INCOME					
	Level Income (000's $)			% Change	
	1976	1998	2010	1976-1998	1999-2010
CANADA	53.6	48.7	55.4	-9%	14%
N. & L.	43.8	40.2	48.2	-8%	20%
P.E.I.	38.9	41.3	50.5	6%	22%
N.S.	43.3	41.2	48.9	-5%	19%
N.B.	47.5	42.2	47.9	-11%	14%
Québec	52.4	42.9	48.8	-18%	14%
Ontario	58.1	54.9	60.5	-6%	10%
Manitoba	45.5	45.5	53.4	0%	17%
Sask.	47.0	43.1	56.5	-8%	31%
Alberta	55.4	52.2	69.1	-6%	32%
B.C.	58.6	48.3	52.8	-18%	9%

Source: Statistics Canada

CHART 4: MEDIAN HOUSEHOLD INCOME (PPP*-CONVERTED) - CANADA VS. U.S.



*Purchasing power parity, data prior to 1980 is unavailable; Source: Statistics Canada, U.S. Census Bureau

in the U.S. which has experienced a jobless recovery and has seen its middle class hollowed out for the better part of two decades. However, income inequality in Canada is somewhat less clear-cut.

In order to get a fulsome measure of inequality, economists typically refer to the Gini coefficient. This metric assesses the gaps in incomes in any given country and generates a single number which can then be easily compared across time and across countries. The Gini coefficient ranges from 0 to 1 – if everyone in a country has identical incomes (perfect equality), then the Gini coefficient will be 0. Conversely, if an entire country's national income is reaped by a single individual (perfect inequality), then the Gini coefficient will be 1.

Over the last 35 years, the Gini coefficient in Canada has never risen beyond its U.S. counterpart (Chart 5). Inequality in the U.S. has always been higher than in Canada and, in fact, has risen faster for the entirety of those 35 years. In Canada, after increasing sharply during the difficult period in the early-to-mid 1990s, income inequality in Canada has remained essentially flat over the last decade.

Income inequality has been unchanged in Canada – say what?

To many, the sideways path of income inequality as measured by the Gini coefficient might come as a surprise, especially in light of world-wide attention on the issue. Charts 6-7 help to shed light on what has been occurring under the surface. During the 1980s and throughout much of the 1990s, the relatively paltry real income gains recorded in

Canada were concentrated in the upper 20% of households. And more recently, the upper end has witnessed a healthy acceleration in growth, owing in part to an explosion of hiring in the public sector, where wages and benefits have been comparatively attractive. Nonetheless, since 1998, those in the bottom 20% of the income scale have recorded an even faster pace of income growth. This outperformance reflects a combination of rebounding government transfers, rising minimum wages in Canada (up by more than 50% on average nation-wide since the late 1990s), and a respectable pace of job creation within several lower-wage areas of the service sector. In contrast, over the past 10-15 years, households in the middle of the income spectrum have recorded gains, but considerably less than their counterparts. Downward pressure on jobs and wages in the middle-paying manufacturing sector has left its mark on this part of the income curve. But despite the relative softness in the middle, the reasonably wide distribution of income gains has been sufficient to keep the Gini coefficient quite stable over the past decade.

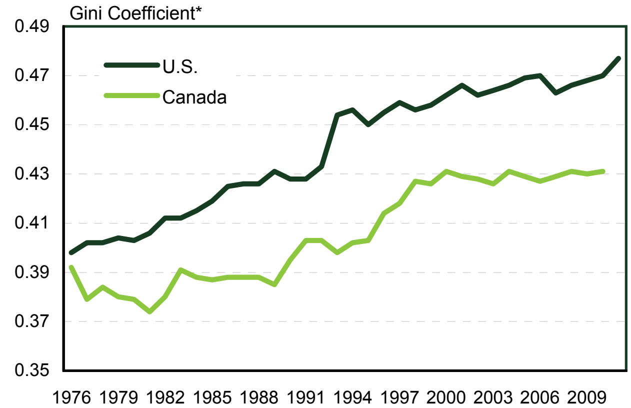
Interestingly, the story changes very little even by using after-tax income data and adjusting for the secular decline in the average family size over the last few decades. The Gini coefficient calculated using this definition of income has been flat since 2000.

Again, not all provinces created equal

Just as income growth has not benefitted all regions to the same degree, both levels and changes in income inequality have also ranged (Table 2). Since the late 1990s, British Columbia and Newfoundland & Labrador have stood out among the provinces with the largest increases in the Gini coefficient. In these provinces, trends in employment growth over the past decade have been skewed towards higher-paying industries such as construction, professional and education services. These impacts have been partially counterbalanced by proportionally larger reductions in tax rates for lower income individuals as well as hikes in minimum wage rates, especially in Newfoundland & Labrador.

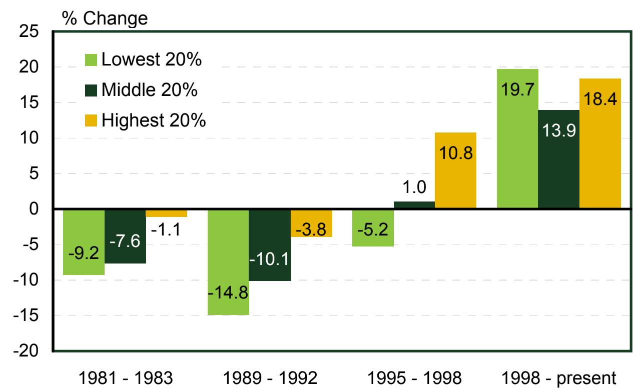
The continued rise in the Gini coefficient in British Columbia has left it as the province with the highest level of income inequality among the provinces. Based on reported personal incomes in the CRA tax statistics, B.C. does not appear to be home to an outsized share of high-income individuals (although this share could be skewed downward by the province's larger-than-average proportion of small-businesses and start-ups, where tax incentives in particular

CHART 5: INCOME INEQUALITY CANADA VS. U.S.



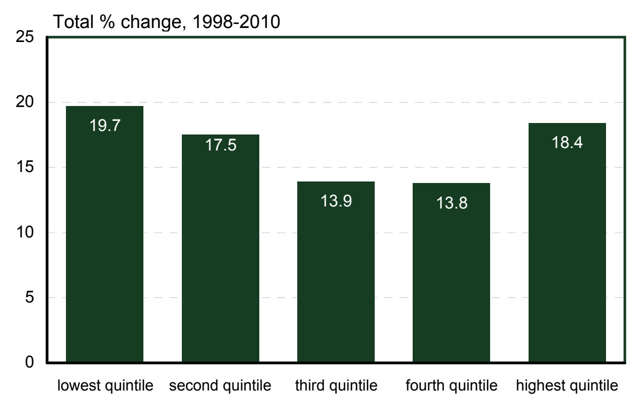
*Higher = less equality; Source: Census Bureau, Statistics Canada

CHART 6: CHANGES IN REAL CANADIAN HOUSEHOLD INCOME BY INCOME BRACKET



Source: Statistics Canada

CHART 7: HOUSEHOLD INCOME GROWTH IN CANADA., 1998-2010



Source: Statistics Canada

support a preference for income to be claimed by the business rather than the household). At the same time, B.C. ranks first in Canada in terms of individuals living in low income.

At the other end of the spectrum, the Prairie region has experienced an overall decline in income inequality over the past 10-15 years. Rapid economic growth and labour shortages have had positive knock-on effects on wages and labour demand right down the income scale. In addition, the commodity boom has supported government coffers, with a share of those revenues recycled to the most disadvantaged in the form of higher transfer payments. Reflecting its particularly strong growth and ultra-tight labour markets, Alberta has experienced the most notable decline in inequality within the region since the late 1990s, while Saskatchewan registered a modest rise. Among the three provinces, Manitoba still records the lowest level of inequality.

In Ontario, income inequality has generally stayed flat since 1998. However, with manufacturing employment suffering heavy losses, the job gains have been concentrated in service-sector occupations that pay above-average wages and benefits. At the top of this list is public administration, health and education, where combined payrolls in Ontario have grown by about 30% since 1998, the fastest rate among the provinces. As a result, the experience in Ontario likely mirrors the national average: strong income gains at the low and high ends of the income scale, but relatively muted gains in the middle.

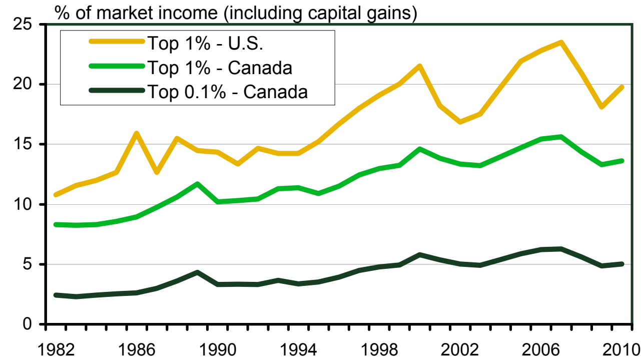
In Quebec and the Maritimes, trends in income inequality over the past 10-15 years have either been flat-to-slightly down. One exception to the rule is Prince Edward Island,

TABLE 2: GINI COEFFICIENT

	1976	1998	2010
CANADA	0.39	0.43	0.43
N. & L.	0.37	0.40	0.42
P.E.I.	0.41	0.39	0.37
N.S.	0.37	0.41	0.41
N.B.	0.37	0.40	0.40
Québec	0.38	0.42	0.41
Ontario	0.39	0.43	0.43
Manitoba	0.40	0.41	0.40
Sask.	0.41	0.41	0.42
Alberta	0.40	0.44	0.43
B.C.	0.40	0.43	0.45

Source: Statistics Canada

CHART 8: INCOME SHARE OF THE TOP 1% AND 0.1% IN CANADA & THE U.S.



Source: Veall, Michael. 2012. Top Income Shares in Canada: Recent Trends and Policy Implications. *Canadian Journal of Economics (November): forthcoming*

where a steady drop in inequality since 1976 has taken the province from second highest ranking to the lowest in Canada. In PEI, the lower-end of the income spectrum has benefitted from strong gains in tourism-related jobs and a sharp increase in the minimum wage. Elsewhere, modest employment growth has been fairly evenly-balanced between lower-paying (i.e., trade and accommodation and food) and higher paying (health care, construction and professional services) occupations.

Gini coefficient does not tell the whole story – wealth and the top 1%

Keep in mind that this method of measuring income inequality is just one of many. The Gini coefficient looks at the distribution of income across an entire population, but says little, if nothing, about any broader notion of inequality. In fact, these other perspectives tell an entirely different story.

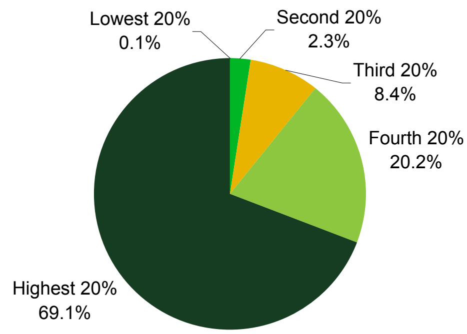
While the distribution of income (as measured by the Gini) has remained roughly the same since the late-1990s, the dollar amount of income inequality has certainly increased since then. The increase in the average income for families in the bottom 20% (Chart 7), though largest among the five income brackets, actually equates to just a $2,500 increase, from $12,700 to $15,200. This level of income is still not even sufficient to meet a family's basic needs, even after the increase. By comparison, the "smaller" average income gain among the top 20% of Canadian families equates to $26,700, more than ten times larger, from $145,200 to $171,900. So while the Gini coefficient has remained relatively flat, it belies the challenges facing low-income Canadians. It should be stressed that while the cumulative income gains over the twelve years may look impressive, the average annual growth has been 1.5% for low-income households, 1.1% for mid-income families and 1.3% for affluent households.

Another form of inequality, one that has likely received the most attention in the wake of the financial crisis, is the share of income received by the top 1%. Though more prevalent in the U.S. given its place as the central focus of the widespread Occupy movement, the trend is just as disconcerting in Canada. New research[1] by Michael Veall, professor of economics at McMaster, has shown using tax return data that the top 1% of Canadians have been taking an increasingly larger share of national income over time. This is an important complement to the income inequality debate as the Gini coefficient only uses survey-based income data that may suffer from underreporting from the country's highest earners. His data show that their share of total income nearly doubled from 8.2% to almost 15.6% between the early-1980s and 2007 (Chart 8). For the top 0.1%, or roughly the top 25,000 individual earners, their share of total income more than doubled from 2.3% to 6.3% over those same years. To be fair, those shares have since fallen back moderately to around 13.6% and 5.0% as of 2010, respectively, and are still far lower than levels seen in the United States. There, the top 1% income share has stayed relatively consistent at around 18% since 2005. In Canada, the top 1% share has increased in every province with the highest concentrations in Alberta, Ontario, and British Columbia.

Last, we must also consider not just inequality in incomes, but also in the wealth that has accumulated over time. According to the 2005 survey of financial security, the richest 20% of Canadians held almost 70% of national net worth (Chart 9). This perhaps represents a more tangible notion of inequality since a stronger net worth position generally translates into ownership of more expensive homes, luxury cars and possibly other luxury goods that are mostly out of reach for the majority of Canadian families. In fact, this may possibly have had an influence on the pace of household debt accumulation in recent years. With a relatively muted pace of income growth for middle-income Canadians over the last decade combined with a falling interest rate environment, it is perhaps unsurprising that many middle-income families may have turned to debt financing in order to bridge the gap between themselves and wealthier Canadians.

These somewhat opposing aspects of inequality paint a much different picture than the Gini coefficient, but ultimately represent different sides to the same story. This would suggest that perhaps inequality in Canada is less clear-cut than it is in the United States, which has seen a much more significant increase in the Gini coefficient and in the income share of the top 1%.

CHART 9: DISTRIBUTION OF CANADIAN NET WORTH BY INCOME QUINTILE, 2005



Source: Survey of Financial Security, 2005

Some final remarks

The fact that Canadian median income is now higher than in the U.S. reflects both Canada's recent relative economic success and America's difficulties. Looking ahead, the pace of economic growth in Canada will likely be modest, supporting only modest gains in household income, but the strongest increases are likely to remain in the Prairies. For the U.S, while better prospects for economic growth in the near term will likely stem the 4-year decline in incomes, ongoing efforts by the U.S. federal government to address budget shortfalls could weigh on household income growth, similar to the Canadian experience in the mid-1990s. With regards to income inequality, there are clearly several different ways of looking at the issue, with seemingly opposite conclusions. In actuality, all of these elements paint a more balanced picture of the challenge Canada faces with respect to income inequality. In short, it remains a less daunting one in Canada than in the United States. This takes nothing away from the fact that many Canadians continue to struggle, including those at the low end of the income scale but also an increasing share of the middle class. Lastly, there are several disconcerting trends including a rising share of income taken by the top 1% and an increased concentration of wealth among the wealthiest.

Endnotes

1 Veall, Michael. 2012. Top Income Shares in Canada: Recent trends and Policy Implications. Canadian Journal of Economics (November): forthcoming