The Canada-U.S. Income Gap

In the 1990s, the gap between and Canadian and American income levels widened significantly. Real personal income per capita in Canada fell 9 percentage points from 87.2 per cent of the U.S. level in 1989 to 78.1 per cent in 1999, the largest 10-year decline in recorded in recent Canadian economic history. This decline in Canada's standard of living relative to the United States has important implications, such as the greater financial incentive it gives Canadians to pursue careers south of the border. This article provides a brief overview on the dimensions of the growing Canada-U.S. income gap, the factors behind it, and likely future developments.

Some Concepts and Caveats

Before beginning discussion of the income gap, it is useful to review several concepts and caveats pertaining to the measurement of income across countries. First, three concepts of aggregate income are used in the debate on income trends- Gross Domestic Product (GDP), defined as the total income received by all factors of production; Personal Income (PI), which includes transfer payments but excludes undistributed corporate profits and depreciation; and Disposable Personal Income (DPI), defined as personal income after taxes. A major weakness in the use of DPI for international income level comparisons is that this measure does not include the public services provided by government, and the relative importance of these services varies across countries.

A second point is that international comparisons of income levels must be made with purchasing power parity (PPP) exchange rates, not the market exchange rate, if they are to accurately portray relative living standards. The purchasing power exchange rate is the rate at which a basket of goods costs the same in two countries. The PPP rate used in this article is based on the Statistics Canada benchmark of $0.813 U.S. per Canadian dollar for 1992. Given the lower inflation in Canada than in the United States since 1992 (5 percentage points for the GDP deflator), the PPP rate, for 1999 dollars, was $0.856 U.S.

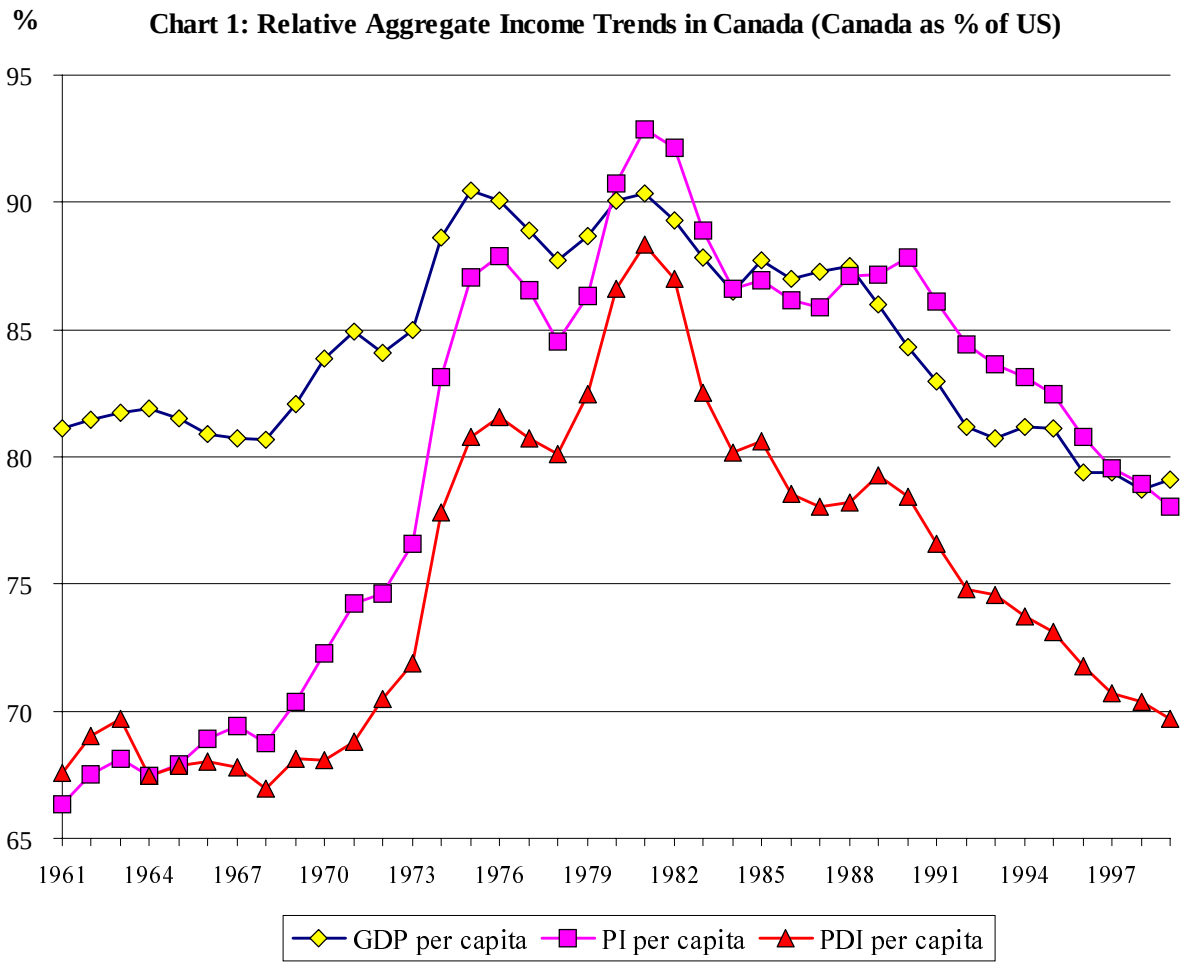
Two other points to note in income comparisons are the following. First, the recent change by the U.S. Bureau of Economic Analysis to include software as part of investment, not intermediate consumption, has increased real GDP growth in the United States in the 1990s. As Statistics Canada has not yet incorporated this change into its national accounts time series, there is an upward bias in the U.S. real income series relative to the Canadian series. Second, in the discussion of income performance, one should always be careful to distinguish income levels from rates of growth as it is the latter that drive the former. For example, Canada’s growing income gap in the 1990s reflects lower rates of real income growth relative to that in the United States.

Table 1

Per Capita Real Income Levels and Growth Rates in Canada and the United States (expressed in 1992 U.S. dollars)

	GDP per capita	Personal Income per capita	Disposable Personal Income per capita
		Canada	
1989	$21,011	$18,339	$14,565
1999	23,499	18,751	14,269
		United States	
1989	24,438	21,042	18,372
1999	29,705	24,024	20,472
		Canada as a percentage of the U.S.	
1989	86.0	87.2	79.3
1999	79.1	78.1	69.7
change in points	-6.9	-9.1	-9.6
	Average annual rate of change, 1989-99		
Canada	1.13	0.22	-0.21
U.S.	1.97	1.33	1.09
Can-U.S. Difference	-0.84	-1.11	-1.30

Source: CSLS data base (www.csls.ca) based on data from Statistics Canada, U.S. Bureau of Economic Analysis, and U.S. Bureau of Labor Statistics.



Canada-U.S. Income Trends

Table 1 provides data on three aggregate income measures for Canada and the United States in absolute terms (expressed in 1992 U.S. dollars) and relative terms for the last business cycle peak of 1989 and 1999, the most recent year for which data are available, and provides average annual growth rates between the years. Chart 1 shows the Canada's relative position vis-a-vis the United States for the three aggregate income measures over the 1961-99 period.

A number of observations arise from these data. First, Canada's income gap with the United States is much greater for disposal personal income than for the other two income measures (30 percentage points versus 21-22 points in 1999). This reflects the greater share of personal income devoted to taxes in Canada, offset to be sure by greater government services (and larger interest payments on public debt).

Second, all three income measures show a marked deterioration in Canada's living standards relative to those in the United States in the 1990s, after an improvement in the 1960s the 1970s and some deterioration in the 1980s. The gap for disposable

personal income rose 9.6 points from 1989 to 1999, that for personal income 9.1 points, and that for GDP 6.9 points. These trends reflected the slower growth of all three income measures in Canada.

Third, two of the three income measures show that living standards in Canada in the 1990s either declined in absolute terms (-0.2 per cent per year for per capita PDI) or experienced very slow growth (0.2 per cent for per capita PI). Only per capita GDP showed some progress, growing at 1.1 per cent per year. This large gap between GDP and personal income growth reflects the larger increase in the Consumer Price Index (2.2 per cent per year), which is used to deflate personal income, than in the GDP deflator (1.5 per cent per year), which is used to deflate GDP. This in turn was due to the declines in the prices of investment good and exports, which are included in GDP, but not in personal income. From the point of view of trends in current living standards, the CPI is the more appropriate deflator.

Explanation of Income Trends

GDP per capita is determined by the proportion of the population which is working and the output of each worker. The former variable in turn reflects the demographic structure (the proportion of the working age population (15 years and over) in the total population, and the employment rate, that is the number of persons employed as a share of the working age population. The employment rate is determined by both the participation rate and the unemployment rate.

Canada's growing income gap in the 1990s reflected both poorer productivity and employment rate growth relative to the United States[1]. Output per worker advanced only 1.1 per cent per year over the 1989-99 period in Canada versus 1.7 per cent in the United States. Canada's employment rate actually fell 0.2 per cent per year due to a falling participation rate while the employment rate in the United States advanced 0.2 per cent. On the other hand, the ratio of the working age population to the total population advanced at a faster rate in Canada (0.3 per cent) than in the United States (0.1 per cent), reducing the income gap.

Thus, of the 0.8 percentage point gap in real per capita GDP growth between Canada and the United States over the 1989-99 period, 0.6 points were contributed by slower productivity growth, 0.4 by poorer employment rate growth, and -0.2 points by a more favourable demographic structure.

The relative contribution of the productivity and labour market factors varied significantly within the period. Our inferior labour market performance was the key factor behind growth in the income gap in the first half of the decade. Employment rate growth was 0.9 points per year less in the 1989-95 period in Canada, whereas in

[1] For a discussion of labour market performance in Canada and the United States in the 1990s, see Sharpe, Andrew (2000) "A Comparison of Canadian and U.S. Labour Market Performance in the 1990s," in *Vanishing Borders Canada Among Nations 2000*, edited by Maureen Appel Molot and Fen Hampson, (Toronto:Oxford University Press).

the 1995-99 period it was 0.3 points faster. Slower relative productivity growth was the key factor behind the growing income gap in the second half of the decade. The Canada-U.S, productivity growth rate gap averaged 1.3 points per year versus only 0.2 points in the first half of the 1990s.

Canada's poor labour market performance in the first half of the 1990s reflected our much weaker economic growth. This was largely due to our macroeconomic policy choices. The Bank of Canada adopted a very tight monetary policy in the early 1990s in its zealous pursuit of price stability. The resulting high interest rates and recessionary conditions produced large government deficits. This in turn caused governments in mid-decade to adopt restrictive fiscal policies to reduce deficits, at the cost of economic growth.

The increase in the Canada-U.S. productivity growth rate gap in the second half of the 1990s was not due to any absolute deterioration in productivity growth in this country (in fact productivity growth actually picked up 0.2 percentage points). Rather it reflected the doubling of productivity growth in the United States (from 1.2 per cent per year in the 1989-95 period to 2.4 per cent in the 1995-99 period for GDP per worker). It appears that the productivity gains from information technology (IT) have finally manifested themselves south of the border, but not yet in Canada.

Future Income Developments

In 1999, aggregate income measures show Canada with an historically large income gap with the United States. In my view, this gap will fall over the next decade. There are at least three reasons to expect this trend. First, with the strong economy, the federal government and provincial governments will enjoy growing fiscal surpluses and will reduce these surpluses by cutting taxes and thus increasing disposable personal income. Business demands that our tax rates be competitive with lower tax rates in the United States will also contribute to this trend to lower taxes.

Second, Canada’s higher unemployment rate and lower participation rate relative to that in the United States mean that there is greater potential for faster employment rate growth in this country, which will reduce the income gap.

Third, and most important, as economic developments in the United States eventually spill over to Canada with a lag, we may soon begin to enjoy the productivity gains of the information technology revolution that the United States is currently experiencing. Our productivity levels can then converge toward U.S. levels. Productivity growth in the United States now appears to be spreading from the IT-producing industries to the much more important IT-using industries. This augurs well for Canada as our IT-producing sector is much smaller than that in the United States.

It should be noted that the expected improvement in productivity growth in Canada in the years to come will translate into significant real income gains, even if the Canada-U.S. income gap does not close in the case where the United States continues to enjoy very rapid productivity gains. These real income gains in themselves would represent a very positive development after the real income stagnation of the 1990s.

Policy Implications

All Canadians would like to see a reduction in our income gap with the United States and this should be a goal of public policy, to be balanced with all the other competing public policy objectives. A key condition for the gap to fall in coming years is that the economy remain robust. Strong aggregate demand growth will foster productivity growth, increase the employment rate, and improve government finances, allowing further tax cuts. For this to happen it is crucial that monetary policy not turn restrictive and throw the economy into a recession, as happened in the early 1980s and 1990s. Hopefully we can learn from our macroeconomic policy errors of the past.

References

Sharpe, Andrew (2000) "A Comparison of Canadian and U.S. Labour Market Performance in the 1990s," in *Vanishing Borders Canada Among Nations 2000*, edited by Maureen Appel Molot and Fen Hampson, (Toronto:Oxford University Press).