Canada 150: 150 Economic Highs and Lows

Douglas Porter, CFA
Chief Economist
douglas.porter@bmo.com
416-359-4887

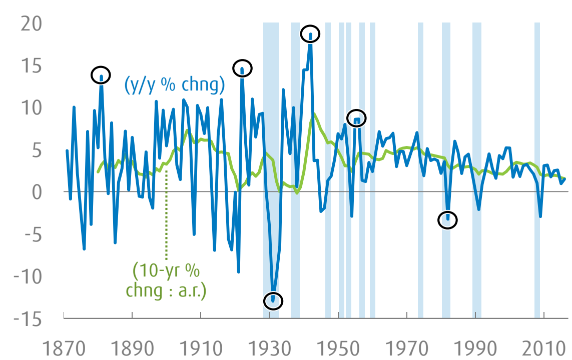
In honour of the 150th anniversary of Confederation, we dug deep into the history books to look at the highs and lows of the Canadian economy over that long stretch. Of course, the country has changed tremendously in that time—from a largely agrarian society 150 years ago, to nearly a post-industrial society today—and so, too, have the economic statistics. For instance, the unemployment rate is a 20th Century concept (not unlike income taxes), while the Bank of Canada didn't exist until 1934 and even the Dominion Bureau of Statistics (the forerunner to Statistics Canada) only began in 1918. Not letting these minor facts get in the way of a good story, we attempted to look at a variety of major economic and financial indicators as far back as history would reasonably allow.

Just as a starting base, we know that the population of Canada was 3.46 million on July 1, 1867, compared with the latest estimate of 36.59 million, meaning just over a ten-fold rise in 150 years, or an annualized increase of 1.58% per year. We estimate that the economy has grown by an average annualized pace of 3.44% per year after inflation, suggesting that the per capita yearly rise has been 1.83% since 1867—which works out to a gain of more than 15 times. Stated another way, the typical Canadian of today produces/consumes 15.2 times more than the typical Canadian 150 years ago. Let's dig a bit deeper into the specifics:

GDP Growth: The changing nature of the economy is reflected in the **much less volatile growth rates of recent decades** compared with the first half of Canada's history *(Chart 1)*. **All of the extremes were seen in years up to World War II**—the single best year for GDP growth was during the height of that conflict in 1942 (18.7%; that would be a decent decade now), followed by a 14.6% burst in 1922 and a 13.7% surge in 1881. In the post-war period, there were no double-digit changes, with a pair of 8.6% growth rates in 1955 and 1956 the last real boom, and the 7.0% advance in 1973 (just prior to the OPEC oil shock) the strongest year in the past half century. On the flip side, the two weakest years were—not surprisingly—during the Great Depression, when GDP fell 13.0% in 1931 and then another 10.0% in 1932. While there are at least 13 years when growth posted double-digit gains, those remain the only two years when GDP fell at a double-digit pace. In modern times, the biggest annual slide in output was in 1982, whose 3.3% drop still marks the worst recession of the post-war era, topping nasty declines in 1954, 1991 and 2009 (all declines of between 2%-to-3%).

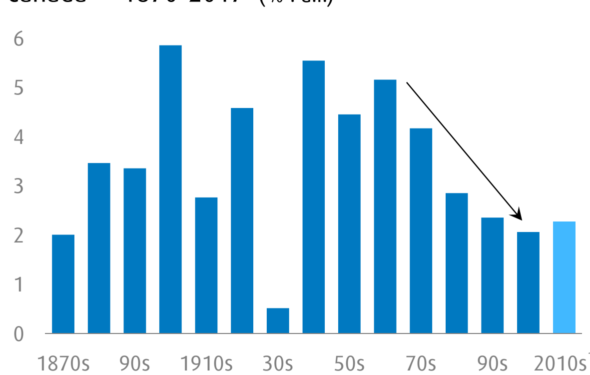
Looking through the short-term volatility, and instead focusing on GDP by decades brings out a revealing pattern *(Chart 2)*. **Growth builds to a crescendo in the middle part of Canada's history**—with a crashing reversal in the 1930s—and **then peaks again in the 1960s, before fading steadily since that time.** The single **best decade** for growth was 1900-09 (averaging 5.8%), which witnessed the **first large-scale production of automobiles** (starting in

Chart 1
Real GDP Growth



Shading marks periods of Canadian recession since 1926
Sources: BMO Economics, Haver Analytics, C.D. Howe, M.C. Urquhart

Chart 2
Real GDP Growth by Decade



[1] 2010–2017 (estimate)
Sources: BMO Economics, Haver Analytics, M.C. Urquhart

Walkerville, Ontario—now Windsor), as well as the development of the aluminum and pulp & paper industries. The **1940s were next** (5.5%), as **WWII** kick-started the economy out of depression, followed by **the 1960s** (5.2%), which were paced by **strong population growth** and a **burgeoning auto industry**. For the **worst decade**, nothing compares to **the 1930s**, when there was almost no net growth (0.5%) during the Great Depression, although 2000-09 gave it the old college try with the modest 2.1% average growth rate dragged down by the bookends of the tech wreck and then the Global Financial Crisis.

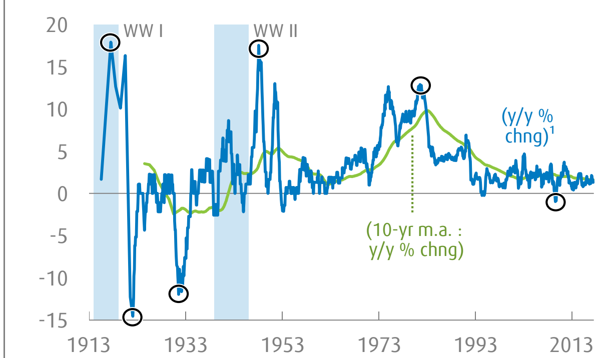
Inflation: The consumer price index is only available back to the tail end of the First World War, and that just happens to be when inflation was running hottest. In fact, **all of the fastest increases** in prices occurred **around the two World Wars** *(Chart 3)*, with the single fastest in 1917 at 17.9% for the full year. That pace was nearly matched, at least for one month just after WWII, in February 1948 at 17.5%, which remains the strongest post-war inflation rate recorded in Canada. In more modern times, inflation peaked in July 1981 at 12.9%, just as the deep recession of 1981/82 was beginning. On the flip side, the lowest inflation on record for a full year was in 1921 at -12.3%, and it hit bottom on a monthly basis at the start of the next year at -14.5%. Consumer prices would then later see a double-digit decline in 1931 (-12%). **Outright declines** in the CPI have been **quite rare** since the mid-1950s, however, with only a brief dip in 1994 on a steep cut in cigarette taxes, and then a 1.0% drop in July 2009 at the depths of the latest recession.

Unemployment: As the labour force has changed dramatically over the decades, long-term comparisons of the unemployment rate become less meaningful. Dispensing with that troublesome reality, by most accounts, **unemployment soared to over 25% during the worst of the Great Depression** (as high as 30% by some accounts), **a sad episode that has not come close to being matched in the 150-year history of Canada.** The official annual statistics that are available report a record high of 19.3% in 1933 and then a low of 1.4% near the end of WWII. In more modern times, the all-time high was reached at the end of the 1982 recession at 13.1% in December (or almost exactly double today's 6.6% rate), while the lowest was hit in June 1966 at 2.9% *(Chart 4)*. Note that the so-called Misery Index (sum of the inflation and unemployment rates) peaked at 22.9% in July 1982, when both measures were in double digits.

The Canadian Dollar: While there were some adjustments to the currency over the decades, **the real action in the Canadian dollar came only after it began to float freely in 1970** *(Chart 5)*. The **all-time low** was hit on **January 21, 2002**, with an intra-day nadir of 61.8 cents(US) (which, curiously, translates to a neatly symmetrical $1.618/US$). That episode was all about a strong US$ and soft

Chart 3
Consumer Price Index

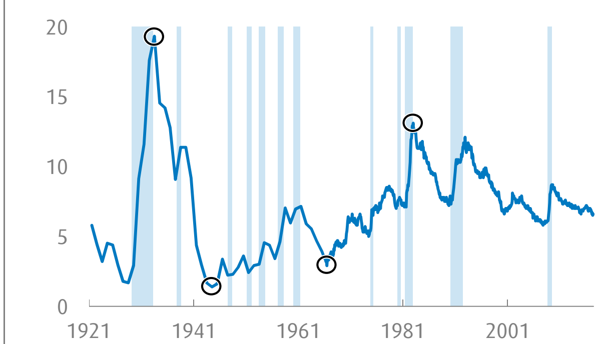
Canada



[1] Annual 1915-1921
Sources: BMO Economics, Haver Analytics

Chart 4
Unemployment Rate

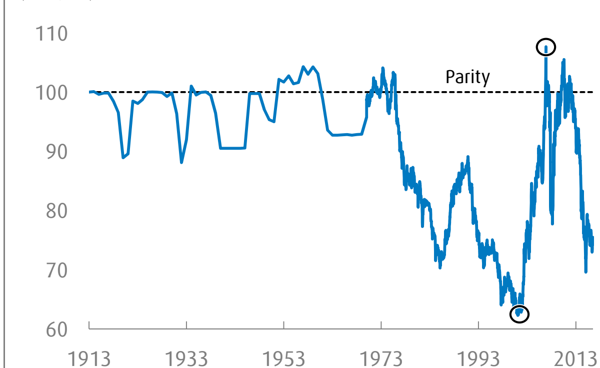
Canada (percent)



1921-45: annual as of June 1; 1946-65: ann. avg.; 1950 onwards includes NL; shading marks periods of Canadian recession since 1926
Sources: BMO Economics, Haver Analytics, C.D. Howe

Chart 5
Canadian Dollar

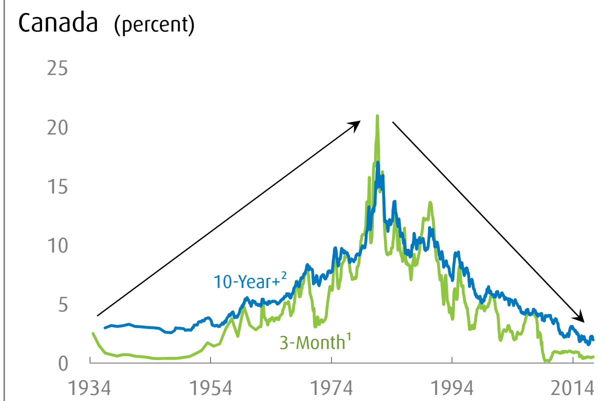
(US¢/C$)



Annual 1913-1970; weekly thereafter
Sources: BMO Economics, Haver Analytics

commodity prices, and had little to do with Canada—quite the opposite, as Canada's credit rating was in the process of being upgraded and growth held up much better in Canada than the U.S. during the tech meltdown. On the other side, and less than six years later, the loonie reached its **modern-day zenith**, peaking at US$1.103 for an instant on **November 7, 2007**. Robust commodity prices, a wave of mining takeovers (notably Alcan), and the first blasts from the financial crisis drove the exchange rate to these extremes. But that actually wasn't the all-time high, as it once hit US$2.65 in the pre-Confederation days of 1864, when the greenback slumped heavily at the tail end of the U.S. Civil War.

Chart 6
Interest Rates



[1] Annual 1934-1961 [2] Annual 1936-1947
Sources: BMO Economics, Haver Analytics

The **biggest 12-month swings** in the Canadian dollar were packed into the traumatic period surrounding the **Global Financial Crisis**. The loonie plunged just over 26% in the year to late October 2008. After hitting bottom, it first stabilized, and then roared back with a symmetrical pop of more than 26% in the year to March 2010. For a calendar year, the biggest annual gain was 2003 (up 22%), while the biggest drop was 2008 (-19%). Note how all of the most extreme moves have unfolded just since 2000.

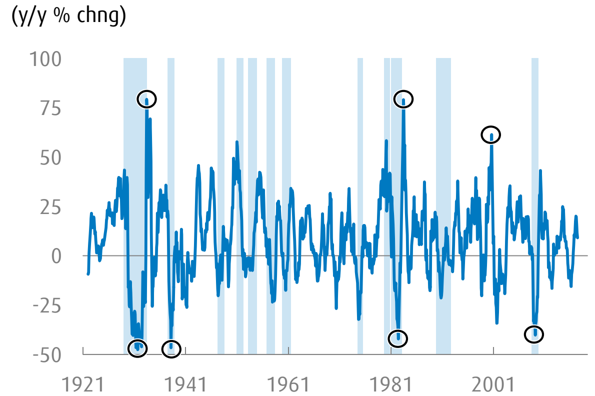
Interest Rates: There may be **many, many subplots** to the interest rate history, but there are really **only two big story lines—a long, steady climb to a 1981 apex**, and then a **long, steady grinding decline to recent lows** *(Chart 6)*. And, accordingly, the highs and lows are quite straightforward on this front. The absolute peak in rates was reached in the summer of 1981 (just as inflation was topping out), with 3-month T-bills cresting at 21.2% in early August (and prime rates hitting 22.75% that same month) and long-term bond yields at nearly 18% soon thereafter. The long, slow decline for yields didn't see bottom until 35 years later; just last September, when 10s touched down at 0.95%—only a week after BoC Governor Poloz gave a speech on the implications of low-for-long interest rates. Short-term rates hit bottom much earlier in early 2010, when 3-month bills reached 0.16%, just before the Bank's overnight rate was lifted from its emergency low of 0.25% (which was even below Depression-lows, as 3-month bills dipped below 0.5% only in 1938).

Of course, interest rates have largely followed the trajectory of inflation for most of the post-war era. Adjusting for inflation reveals that the highest real interest rates were actually recorded in 1990, when T-bill yields moved more than 9 percentage points above inflation—as then-BoC Governor Crow acted aggressively to further crunch inflation and combat a Toronto housing bubble (which did indeed burst in a spectacular fashion). On the flip side, short-term rates were an incredible 17 ppts below inflation in early 1948, as inflation temporarily flared and the BoC kept rates ultra-low in a true version of financial repression. The yield curve was the steepest in the early 1970s (with long-term bond yields more than 4 ppts above short-term rates) just before inflation took off, and was the most inverted in 1981 (more than -4 ppts), just before growth got crushed.

Stocks: The Toronto Stock Exchange can be traced back to pre-Confederation days, with 14 member companies by 1871. But the Montreal Exchange was first, dating back to 1832, beginning as the Exchange Coffee House. It was actually the larger market until the 1930s, but was hit especially hard by the 1929 crisis. **In the nearly**

100 years of index data, the biggest 12-month rise in TSX prices was just over 79%, and it was done twice! The first was a **rebound during the Great Depression** in the year to June 1933 (at arguably the worst point for the economy) and the second was in **the year to June 1983** (as inflation and interest rates cascaded lower after the tough 1982 recession). Notably, the third fastest 12-month rise was a 61% gallop to August 2000 amid the last gasp of the tech boom. On the downside, the deepest 12-month drop was yet again in the Great Depression, when stocks fell almost 48% to September 1931. There were three other times that stocks fell as much as 40% in a 12-month span—finishing in 1938, 1982, and 2009—and all three were also associated with nasty recessions.

Chart 7
TSX Composite Index



Shading marks periods of Canadian recession since 1926
Sources: BMO Economics, Haver Analytics, C.D. Howe

While the accompanying chart on stock prices is no thing of beauty, we believe that it carries an important message. Note the consistency of the price swings over the long sweep of history, albeit with occasional bursts of frenzied activity. This is in stark contrast to the great moderation of volatility seen in the underlying real economy, especially in the post-war era, for growth and, more recently, inflation trends. On the flip side of the coin, the loonie's volatility has only ratcheted up in recent years.

Government Finances: While we often stress about moderately large government deficits, **there's nothing like wars to drive them skyward**. The largest deficit on record as a share of GDP was seen in 1943 (22.5% of GDP), and Ottawa's net debt peaked at 109% in 1946 just after WWII ended (versus about 31% now). Meantime, the largest surplus ever recorded was 4.8% of GDP in 1948, as war-time expenses faded and real interest rates went deeply negative. The lowest reported debt/GDP ratio was seen in 1913 (pre-WWI) at just 11.3%. And bringing it all the way back to 1867, net government debt in our first year was a princely $75.7 million—or just under $22 per Canadian. It now stands at roughly $17,500 for every person, and that's just Federal debt. That may not be the happiest stat to end on, but we still wish you a Happy Canada Day!

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