



Global Investment Research | Fixed Income

Bonding Canadian capital markets and the economy – the history and role of FTSE Canada bond indices

A history on the evolution of FTSE Canadian Bond series

October 2024

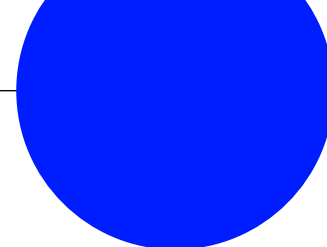


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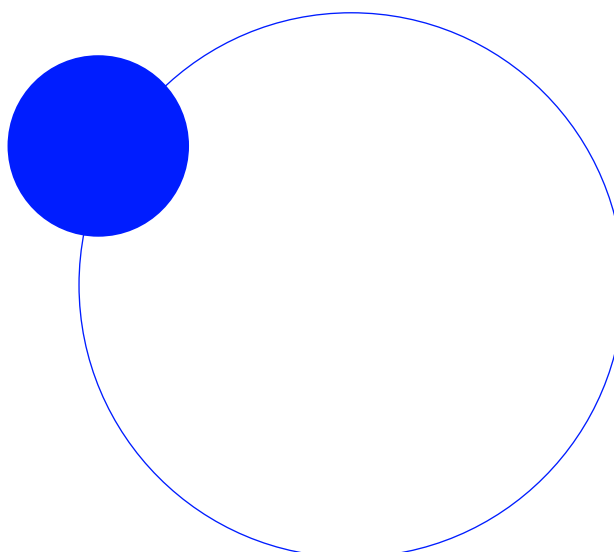
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Introduction

The evolution of the Canadian debt markets reflects the country's economic development since Confederation in 1867, and the impact of major global shocks, like the WW1 and WW2, on Canada. Government, provincial and corporate debt has played a critical role in financing Canada's development since the new Dominion of Canada (comprised of Ontario, New Brunswick, Nova Scotia and Quebec) began selling domestic debt in January 1868, calling for tenders on C\$1.5 million of 6% 10-year bonds. As a smaller, open economy, the need to access pools of savings and capital has been a key driver in the development and expansion of Canadian financial markets.



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The very early days...accessing UK and US markets

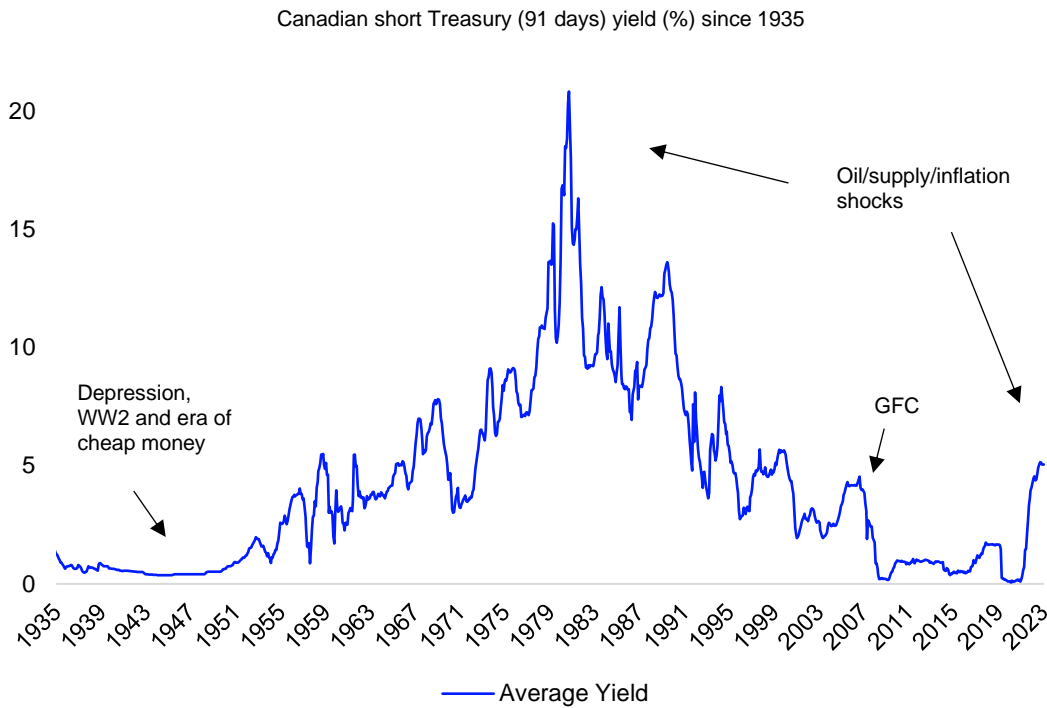
Although the country raised finance on international markets between 1867 and 1900, it was mainly through issuing Treasury bills (T-Bills) in sterling and US dollars in London and New York. But this source of finance was effectively closed by the outbreak of WW1, in 1914, obliging Canada to issue Treasury bills actively to domestic buyers in Canadian dollars during WW1, alongside War Bond issues. These issues morphed into the first Canadian T-Bill auction in 1935, arranged by the newly established Central Bank of Canada (BoC), which was founded partly to stabilise the banking system after the banking failures during the Great Depression, and also to coordinate federal borrowing¹. The BoC's key interest rate was the Bank Rate, which pins down the yield curve at the front end.

FTSE Russell indices develop to monitor performance of Canadian debt markets

FTSE Russell's Canadian bond indices are designed to monitor the performance, characteristics and development of Canadian debt markets, and began in 1935, with the Treasury Bill Index. Chart 1 shows yields on 91 day T-Bills since they were first issued, capturing nearly 90 years of Canadian monetary history. Intriguingly, it shows rates remained near zero from 1935 to 1951, long before the near zero rates seen after the global financial crisis (GFC) and Covid from 2008.

¹ See The Evolution of the Government of Canada's Debt Distribution Framework, Marc Pellerin, Bank of Canada Review, Spring 2006.

Chart 1: Canadian Treasury bill yields since the inaugural launch in 1935

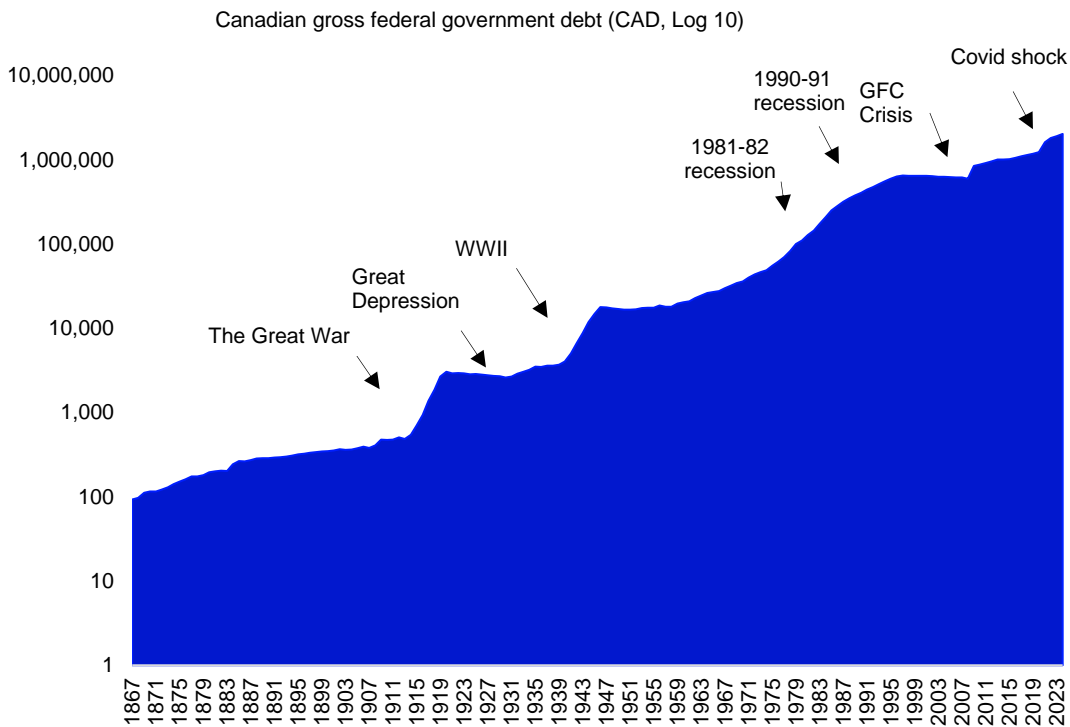


Source: FTSE Russell to December 29, 2023, FTSE Canada 91 day Treasury Bill Index.

World wars drove first major government debt expansion...

The Federal government’s borrowing needs grew sharply from 1914 – 1945, encompassing issuance for the two World Wars and the Great Depression in the 1930s. Canadian government debt had grown steadily from C\$94 million outstanding in 1867, to the outbreak of WW1 in 1914, but accelerated with WW1 issuance, to reach C\$2.4 billion, and doubled again to reach C\$5 billion, during the Great Depression, as Chart 2 shows.

Chart 2: Canada gross debt since 1867



Source: Statistics Canada – Federal government debt, for fiscal year ending March 31, 2024; Table: 10-10-0048-01 (formerly CANSIM 385-0010).

... and early development of a benchmark yield curve

The Canadian government issued two War Loans in 1940, and nine War Savings Certificates, or Victory Loans, from 1941-45, raising about C\$13 billion for the war effort², and taking the stock of debt to C\$18 billion by 1945. These bonds tapped the ample supply of domestic savings during the War and helped form a benchmark yield curve for government borrowing. They were straight government bonds of different maturities, with various fixed coupons, as Table 1 shows. There was a well-developed secondary market in these bonds, which proved to be very popular with the public, but no active secondary market in T-Bills.

² See Statistics Canada Annual Yearbook 1947.

Table 1: Selected “Dominion of Canada” T-Bill and bond issues

Type of issue	Issue date	Maturity date	Tenor	Coupon to public
T-Bills	Sept 1945	March 1946	9 months	0.75%
T-Bills	April 1945	April 1946	1 year	1%
Bonds				
8 th Victory Loan	May 1945	Nov. 1949	4.5 years	1.75%
8 th Victory Loan	May 1945	Oct.1963	18.25 years	3%
9 th Victory Loan	Nov. 1945	Nov.1950	5 years	1.75%
9 th Victory Loan	Nov.1945	Sept 1966	20.625 years	3%

Source: Statistics Canada, Annual Yearbook 1947.

The provinces were active borrowers from the Dominion

Alongside the growth in Canadian government or Dominion of Canada debt, the Canadian provinces were active borrowers from the Dominion, particularly during the Great Depression. Indeed, the Dominion wrote off some C\$18 million of its loan to Saskatchewan in fiscal 1938, and in 1947 passed an act writing off another C\$55 million of the debt owed by four provinces. The remainder was re-scheduled over 30 years, to 1977. This was an early example of the Dominion/Federal Government effectively bailing out the provinces.³

Longer dated indices introduced in 1947 in response to post-war financial needs

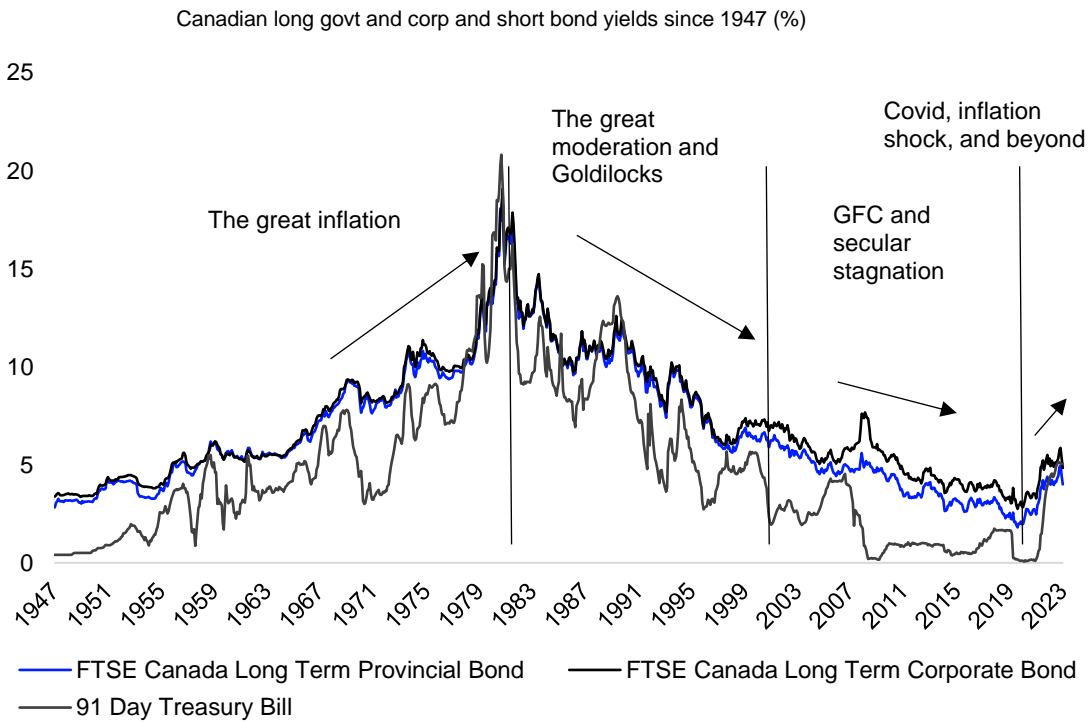
It also became clear in the post-war era, that broader capital markets could both help the economy and the Bank of Canada implement its monetary policy⁴. A secondary market in T-Bills and shorter-term debt securities was part of this process, and with this in mind, market jobbers were designated in T-Bills from 1953 onwards. In response to the de facto arrival of a government yield curve, and an active secondary market in government bonds, and Provincial debt issuance, chartered banks, such as the Bank of Nova Scotia (as it was known then), published indices to measure the performance of the Canadian fixed income market in 1947⁵. Chart 3 shows long Provincial and Corporate bond yields since 1947, in these indices, and movements in T-Bill yields.

³ Provincial Solvency and Federal Obligations – Marc Joffe – October 2012 MILI.

⁴ History of Bank of Canada book.

⁵ TSX Group Inc. acquires Scotia Capital Inc.'s fixed income indices, PC Bond, and related data assets | McCarthy Tétrault.

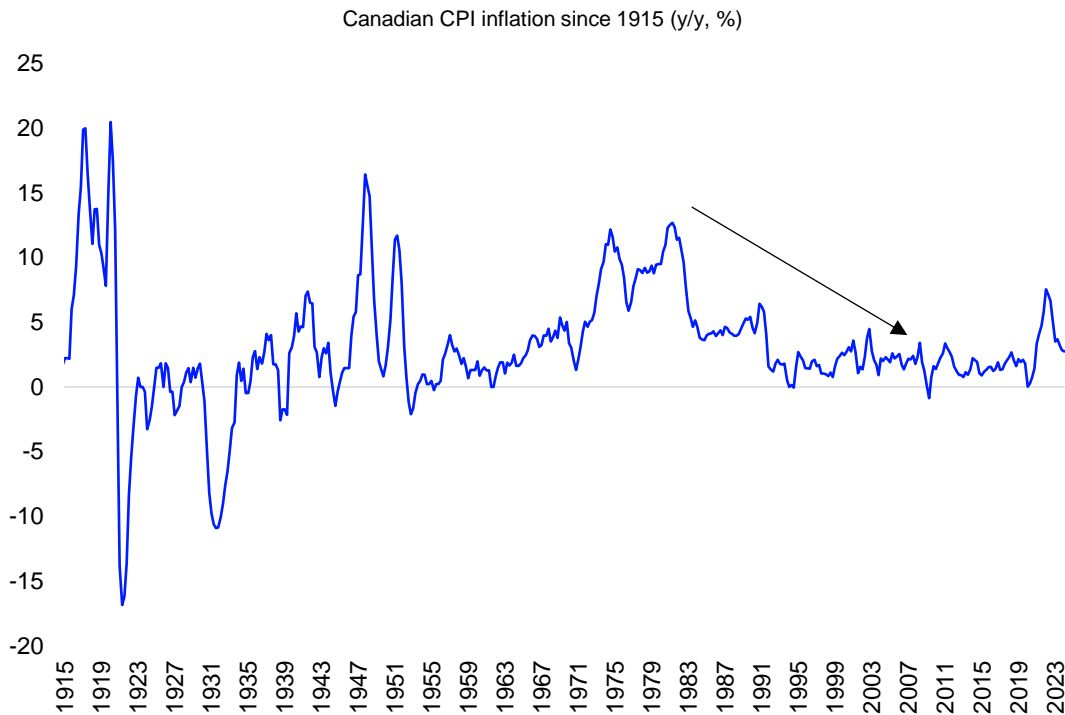
Chart 3: Canadian long index yields since 1947



Source: FTSE Russell. Past performance is no guarantee of future results. For professional investors only.

It also shows that yields rose sharply as inflation increased in the oil shocks of the 1970s, before peaking in 1980. Thereafter, yields trended lower in the 1980s and 1990s, during the “Great Moderation” as the Bank of Canada succeeded in reducing inflation from a peak of 12.7% y/y in 1981, to 2.7% y/y 20 years later as Chart 4 shows.

Chart 4: The Great Moderation sees inflation drop to near zero

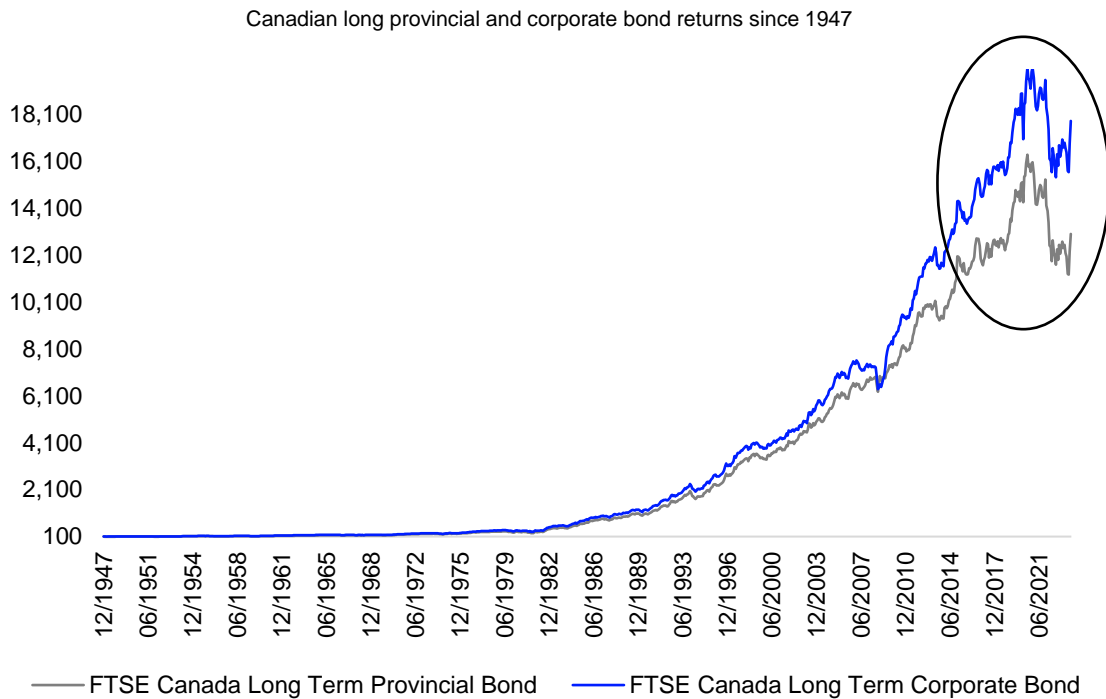


Source: LSEG Workspace.

Performance data reflects the yield eras since 1947

Performance data on the FTSE Canadian bond indices reflect these yield moves, and shows the enormous boost to returns from the duration effect in longer dated indices from the 1980s onwards. Pre-1980, as yields trended higher with inflation, returns were weak with the main positive contribution coming from re-invested coupons, since there was very little capital appreciation. This changed from 1980 – 2020, as yields and Canadian inflation fell substantially, and the critical variable for investors became duration, and convexity, to maximise the returns from falling yields. More recently, since 2020, after the Covid inflation shock, yields have backed up, and duration became the investor’s enemy again from 2020-23, as shown in Chart 5.

Chart 5: Long Provincial and corporate performance returns since 1947



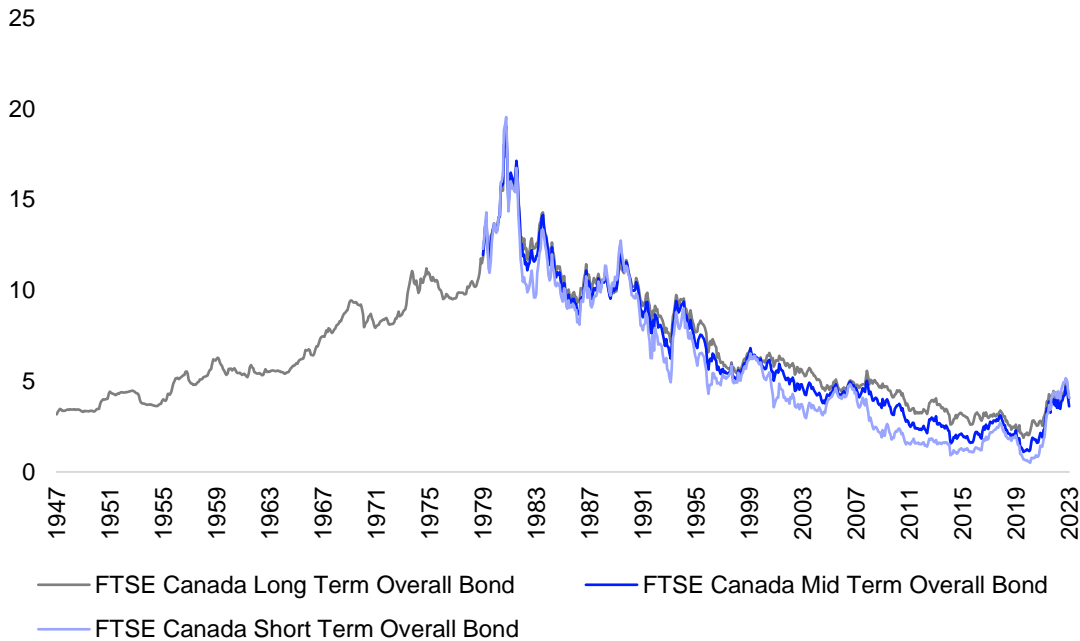
Source: FTSE Russell to December 29, 2023, total returns, Canadian dollars. Past performance is Past performance is no guarantee of future results. For professional investors only.

Inception of the Canada Universe Bond indices in 1979 as government debt issuance surged

Debt issuance by both Canadian provinces and the Federal government accelerated from the mid-1970s onwards, as spending commitments and fiscal deficits expanded. This was the second era of major government debt expansion, after the inter-war years. To help investors capture this increase in marketable Canadian debt and its range of characteristics, the Canada Universe Bond indices was introduced in 1979. By increasing the granularity in the indices, investors also became able to assess the impact of varying duration, convexity and credit quality on returns, as Chart 6 shows.

Chart 6: Canadian long, mid and short government, and corporate bond returns since 1979

Long, mid and short Canadian government and corporate bond yields since 1947 (%)



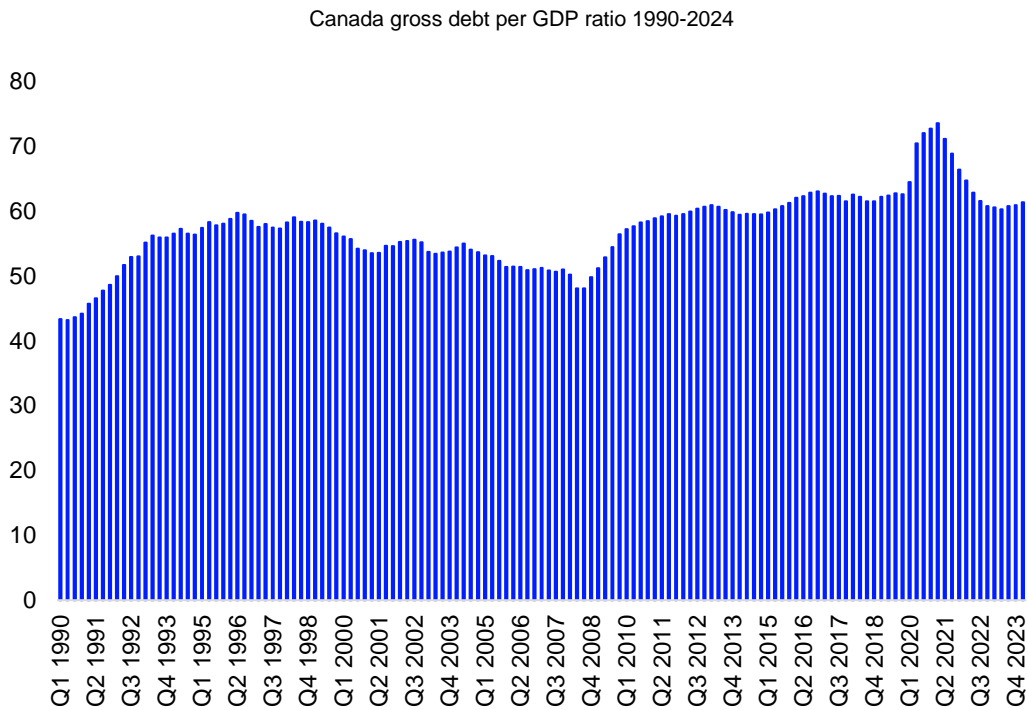
Source: FTSE Russell to December 29, 2023, total returns, Canadian dollars. Past performance is Past performance is no guarantee of future results. For professional investors only.

In the years following to the mid-1990s particularly, a substantial increase in the government debt/GDP ratio occurred as Chart 6 shows. So much so, that the stock of outstanding Canadian bonds grew from C\$33 billion in 1980 to C\$225 billion by 1995⁶. This culminated in a sovereign downgrade for Canada from AAA in 1993, whereupon new Prime Minister Chretien committed to reduce the debt/GDP ratio, and tightened fiscal policy accordingly. This led to the significant decrease in the outstanding stock of government securities.

As economic growth recovered, and the Goldilocks period ensued, with stable growth and low inflation, the government debt/GDP ratio fell from near 60% in 1993 to around 50% at the time of the Global Financial Crisis (GFC) in 2008.

⁶ The Government of Canada bond market since 1980, Bank of Canada Review, Autumn 1995.

Chart 7. Canadian debt/GDP ratio



Source: LSEG Workspace.

Inflation a key variable in driving yields, not issuance?

Despite the huge increase in Canadian dollar debt issuance, yields trended lower from the early-1980s to 2020, casting some doubts on the notion that high levels of debt issuance automatically drove higher yields. Lower inflation was strongly correlated with the decline in yields throughout this period, as Chart 4 above shows, and note the BoC was the first G7 central bank to introduce a formal inflation target in 1991, of 2% y/y. To broaden the appeal of Canadian government debt, and offer investors' inflation protection, the authorities also issued inflation linked, or real return, bonds from 1991 onwards. The equivalent US Treasury Inflation Protected Securities, or TIPS, were not issued until 1998.

Canadian debt markets steadily globalise from the early-1980s

Another important structural development in Canadian dollar debt, designed to improve debt distribution, was the globalisation of the market. This began with the re-introduction of auctions in marketable debt from 1983, and the entry of foreign banks as primary dealers and distributors. Syndicated debt offerings were phased out, in favour of auctions, with the deeper secondary market allowing successful distribution of the debt, and foreign holdings of Canadian dollar debt have increased since then. Auctions offered a more transparent, market-based, pricing mechanism for new bond issues, and the government adopted an all-auction format in fiscal 1992-93, with the last syndicated issue in December 1991.

...including Provincial issuers

Global issues, in which the same bond issue is simultaneously placed in Asia, Europe and North America, became popular with some of the larger provincial borrowers. Ontario Hydro launched the first-ever Canadian dollar global bond in 1990, followed by British Columbia, Ontario, Quebec and Hydro-Québec in the early 1990s. Ontario was by far the largest provincial issuer in the early 1990s, having raised over \$21 billion through 11 global issues between 1992 and 1995, nearly 80% of which was raised in US dollars⁷.

Conclusions

It is not possible to capture the full history of the Canadian bond market and FTSE Canada bond series in a short paper. However, the evolution of the bond market and the [FTSE Canada Bond Index Series](#) shows Canada's transformation from a largely rural, localised economy in the 1860s, to a modern, hi-tech, industrialised economy in the 2020s.

Access to global capital markets, formation of a full yield curve, and deep secondary markets in government and provincial debt, have all been key developments in this process. The Bank of Canada has also played a key role, with its inflation targeting regime since the early 1990s and the post-1945 reforms designed to improve the efficiency of the capital markets.

The FTSE Canada bond indices have been designed to capture key debt market developments, and to help investors monitor the performance, and main characteristics of Canadian debt, across a wide range of asset classes.

Their long history also enables investors to benchmark investment performance in fixed income over different eras and regimes, from the high inflation of the 1970s to the lowflation after the GFC. The indices embody much of Canada's monetary and economic history since Confederation in 1867, and provide important insight into the evolution of the capital markets and economy.

Finally, the indices remain as relevant now as ever, enabling investors to monitor and re-calibrate their investment strategies. Indeed, recent innovation in fixed income investing, particularly rapid growth in bond ETFs, has moved the indices centre stage in the Canadian fixed income investment universe.

⁷ Bank of Canada, Financing activities of provincial governments and their enterprises (bankofcanada.ca).

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