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FIERA REAL ESTATE

Negative Real Interest Rates Are Here to Stay:
Implications for Real Estate Performance

Key Take-Away

Despite the current macro-economic backdrop with interest rate increases, unprecedented debt levels accumulated by developed governments is likely to create a negative **real** interest rate environment to persist for the long-term. This environment will allow real estate performance to thrive.

Why Developed Governments Need a Negative Real Interest Rate Environment for the Long-Term

What is a "Real" Interest Rate?

One of the first lessons of the finance and investment discipline is learning what interest rates are and why they exist. An interest rate is the percentage of principal charged by the lender to a borrower for the use of its money.[1] If a lender believes its borrower has the willingness and ability to pay back the loan, the lender will assume there is little to no credit risk. Removing credit risk from the equation, what rate of interest should a lender demand? **Inflation** is a base consideration. For example, if it is expected that the price of goods and services in an economy will be 2% higher in a year from the inception of a $100 loan, the lender will want to at least preserve its purchasing power to ensure that the $100 can buy the same quantity of goods and services a year later when the loan is due to be repaid. This means that the interest rate should at least be above the 2% inflation rate. This same basic concept applies to savers who deposit their money at a bank. The savers would deem the bank's credit risk near zero and would at least expect to preserve their purchasing power, using the inflation rate as the minimum hurdle. If the interest rate is lower than the inflation rate, a **negative real interest rate** exists – the **savers lose** the real value of their dollars and the **borrowers gain** that real value through advance use of the dollars.

Scenario	Environment	Which Party Gains?
Interest Rate > Inflation Rate	**POSITIVE** Real Interest Rates	Lender
Interest Rate < Inflation Rate	**NEGATIVE** Real Interest Rates	Borrower

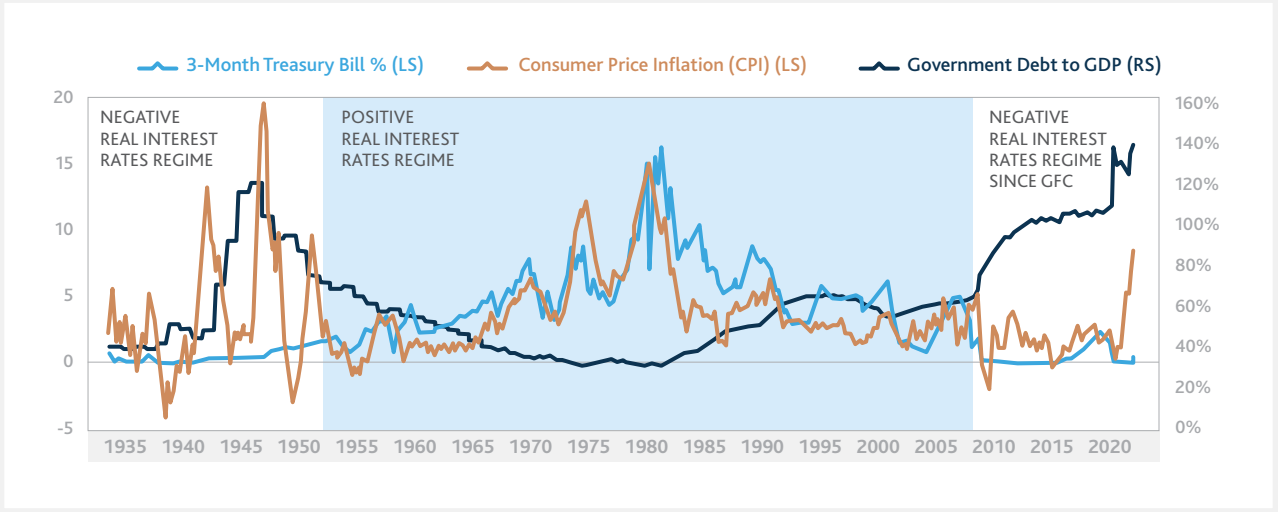
Government Debt Burdens and Their Impact on Real Interest Rates

Throughout history, there have been periods when interest rates and inflation rates were highly correlated, illustrating the relationship in the example above, but there have also been times when this has not been the case and inflation has run much higher than interest rates. To provide historical context, the below graphs the interest rate charged on 3-month US Treasury Bills (issued by the U.S. Government – an entity with essentially no credit risk) compared to the US Consumer Price Index ("CPI"), a measure of goods and services inflation year-over-year,[2] and the government debt to gross domestic product ("GDP") level – a vital variable.

There is a clear correlation between higher government debt to GDP readings and periods of negative real interest rates. Why is that? A highly indebted public sector cannot sustain positive real rates for long before running into a balance of payments problem.

In plain English, **debt is more burdensome on a borrower** when it costs more than the rate of inflation.

U.S. Interest Rates and Inflation (Interest Rate and CPI – % Change from a Year Ago)



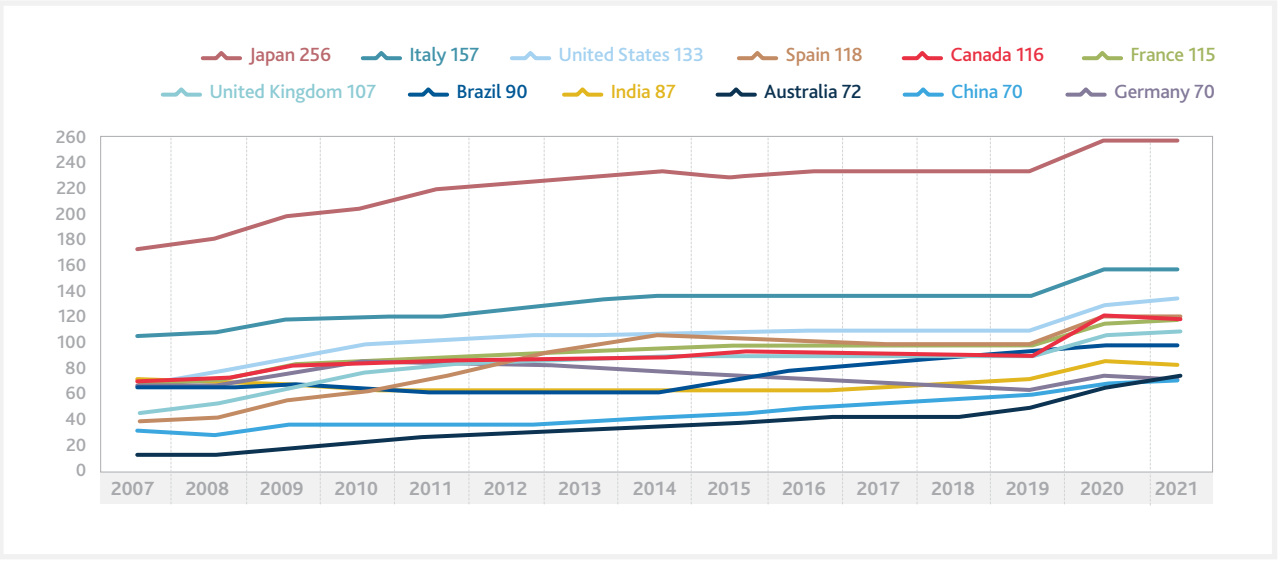
Source: BLS, Board of Governors

The Current State of Public and Private Debt Burdens

Are large debt levels only a problem with the U.S. Government? It appears not. The graph below shows that many developed nation governments have breached debt levels of over 100% of GDP since the Global Financial Crisis of 2008-09 ("GFC") – Canada included at 116%.

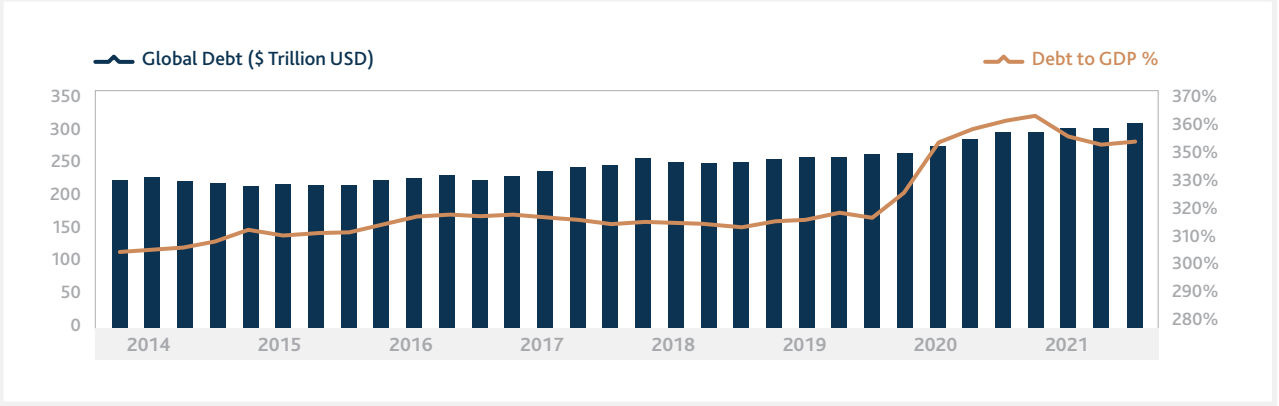
This is not just a government problem; this has been a private sector problem as well, even before the COVID-19 pandemic. The pandemic, however, has accelerated debt levels to new highs. Total global debt, which includes households, corporations, and governments, is currently above $303 trillion – representing 351% of global GDP.[3]

Government Gross Debt to GDP% by Country



Source: IMF

Global Debt – Public and Private Sectors



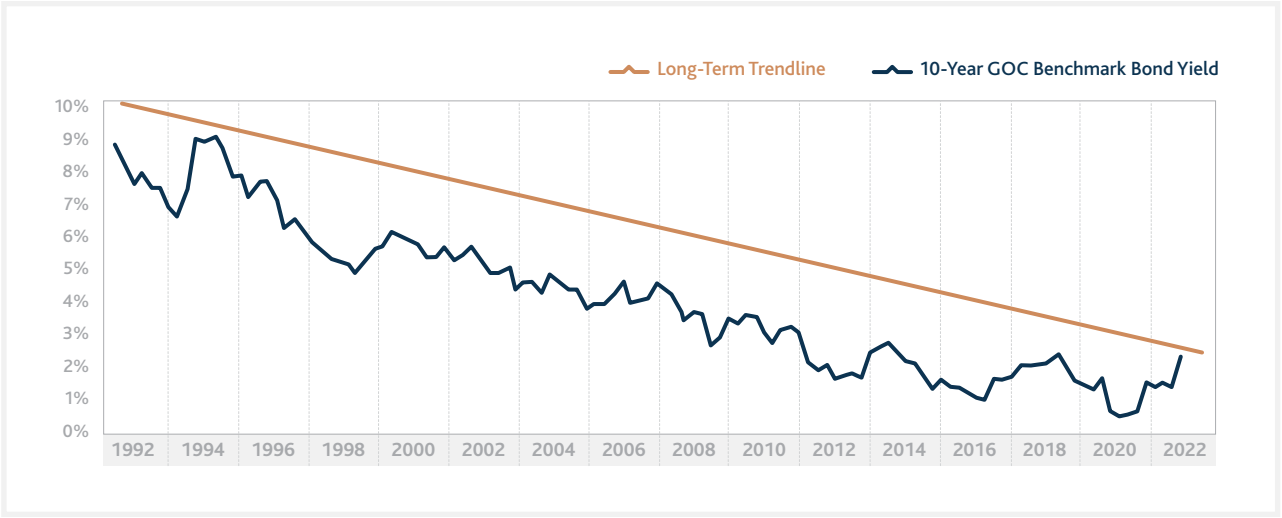
Source: Institute of International Finance (IIF)

Future GDP Growth is Unlikely to Relieve the Debt Burdens

With total global debt to GDP over 350%, this means quite simply that even if no new debt is added, world GDP will have to grow 3.5 times the cost of interest on this debt just to service the interest expense and keep the 350% debt to GDP constant. Assuming a 2% average cost of debt, world GDP will need to sustainably grow by 7% (2% x 350%) every year. At 4% cost of debt, that becomes 14% (4% x 350%) every year. For reference, according to the World Bank, global GDP has grown by 7.1% annualized since 1960.[4] The world's GDP is unlikely to grow quickly enough over the next few decades to effectively de-lever, increasing the global economy's sensitivity to interest rates. In fact, large debt burdens are known to impede GDP growth as an increasingly larger share of incomes is used to pay interest expenses, rather than spend into an economy.

This dynamic has and is likely to continue to naturally keep a cap on long-term interest rates. The following graph shows the secular trend of long-term Government of Canada bond yields – each cyclical peak has been lower than the previous.

10-Year Government of Canada Benchmark Bond Yield



Source: Bank of Canada

Negative Real Interest Rates Set the Stage for a Likely "Soft Default" – Inflating Away the Debt

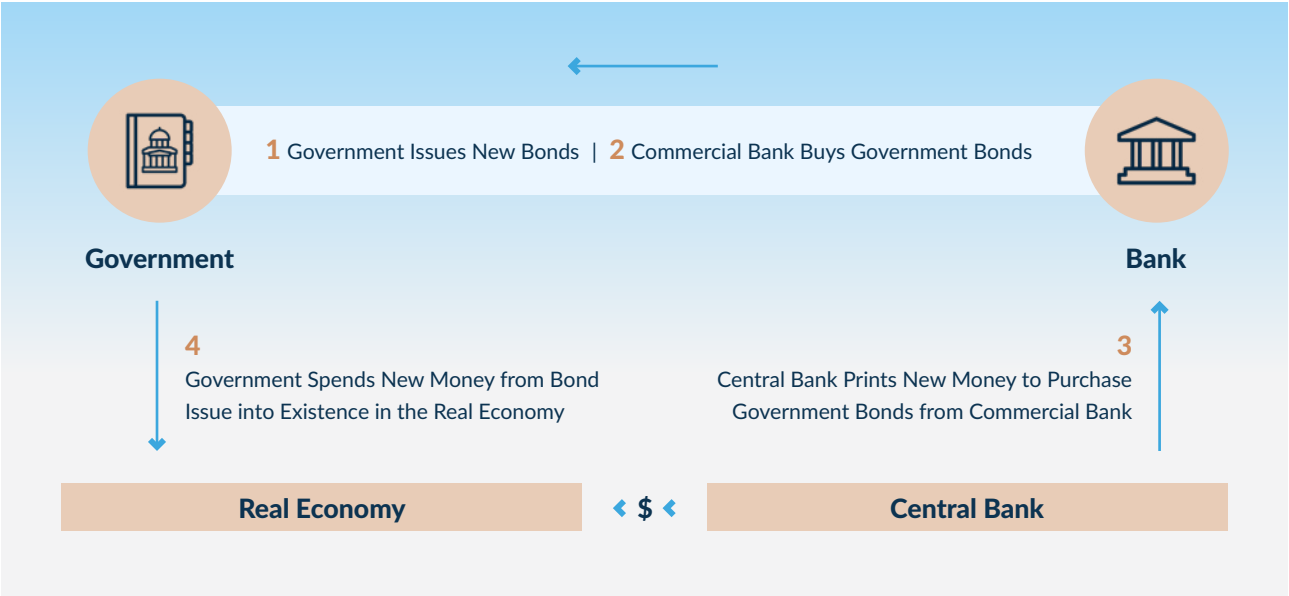
Interestingly, a study was conducted in July 2020 by a US investment management firm, Hirschmann Capital,[5] that looked at historical sovereign debt defaults. The key findings were that since 1800, 51 of 52 countries with gross government debt greater than 130% have defaulted, either through outright default, restructuring, devaluation, or high inflation. The overwhelming majority of these cases were conducted through a "soft default", which includes an inflationary scenario – devaluation or sustained high inflation.

As illustrated above, **negative real interest rates** are a favourable condition for borrowers because it reduces the real value of the debt by inflating it away and is likely to once again be the advanced governments' preferred option to tackle the issue.

The Fiscal and Monetary Playbook to Create Long-Term Negative Real Interest Rates

Evidence from the GFC and the more recent COVID-19 pandemic is clearly hinting that most nations have already chosen an inflationary scenario "soft default," based on the policy responses of the advanced nation governments and central banks. If the largest borrowers are governments, they have special attributes and control that allow them to avoid constraints that a highly indebted household would face. They can issue more of their own currency and implement policies to supercharge economic growth and inflation.

Throughout history when high government debt to GDP levels existed, governments and central banks of those nations tended to work together to essentially ease the financial conditions (or expand the money supply) to help that specific government de-lever its balance sheet to a new, lower level of debt that was more sustainable. The key advantage of a central bank is that it can create and lend new money to the banking system, but it cannot spend the money into the real economy. Commercial banks can create credit and unlock new money into the real economy, but with the economy so heavily indebted, future credit growth is likely to remain low. The government, on the other hand, can directly spend money into the real economy. The solution to unlocking new money in the real economy is central bank induced financing of fiscal deficits, using the commercial banking system as the conduit. This financial maneuver is called **quantitative easing** or "**QE**." The following is a simple diagram illustrating how QE works and how coordination between government, central bank, and commercial banks can monetize government debts and increase future inflation.



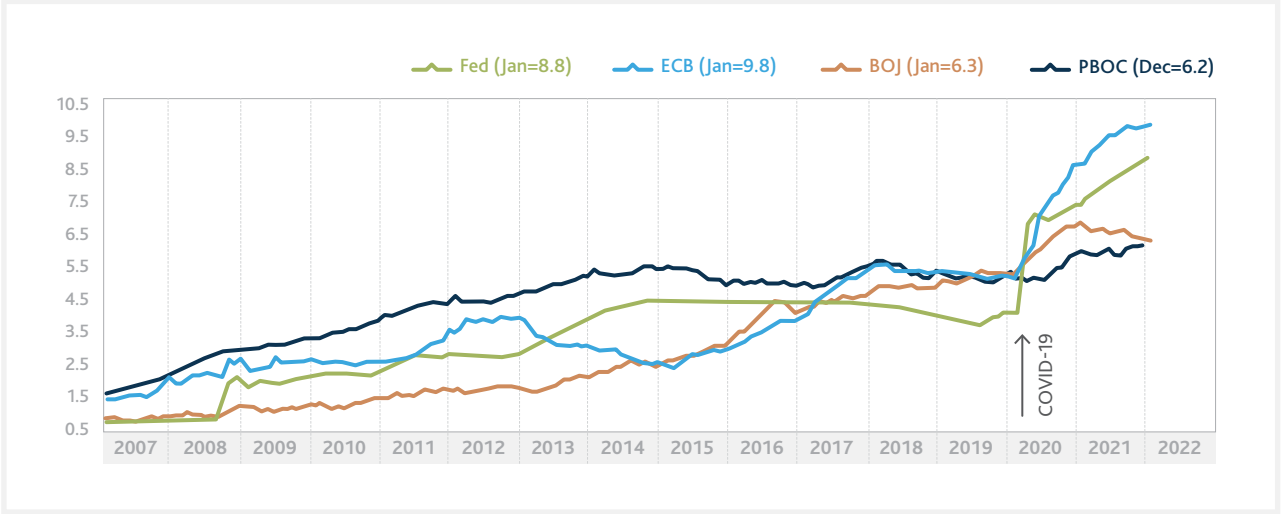
Net Effect: Central Bank Creates New Money to Help Finance Government Spending Into Real Economy

The expansion of money supply in the real economy, or monetary inflation, can have substantial impacts on future inflation rates. Further, the action of the central bank purchasing government bonds also helps to keep a lid on long-term interest rates in case government deficits eclipse investor demand, leading to a rise in rates – similar to what we're experiencing today with central banks halting QE.

Inflation is essentially defined as too much money chasing too few goods and services, driving prices higher. By increasing the money supply, the first ingredient for inflation is established. Take for example, the drastic expansions in central bank balance sheets to instantly respond to the first wave of the COVID-19 lockdowns in March 2020 as shown below. Unprecedented monetary inflation was effectively used to help finance the large fiscal spending packages that advanced governments doled out – much larger than the programs of the GFC.

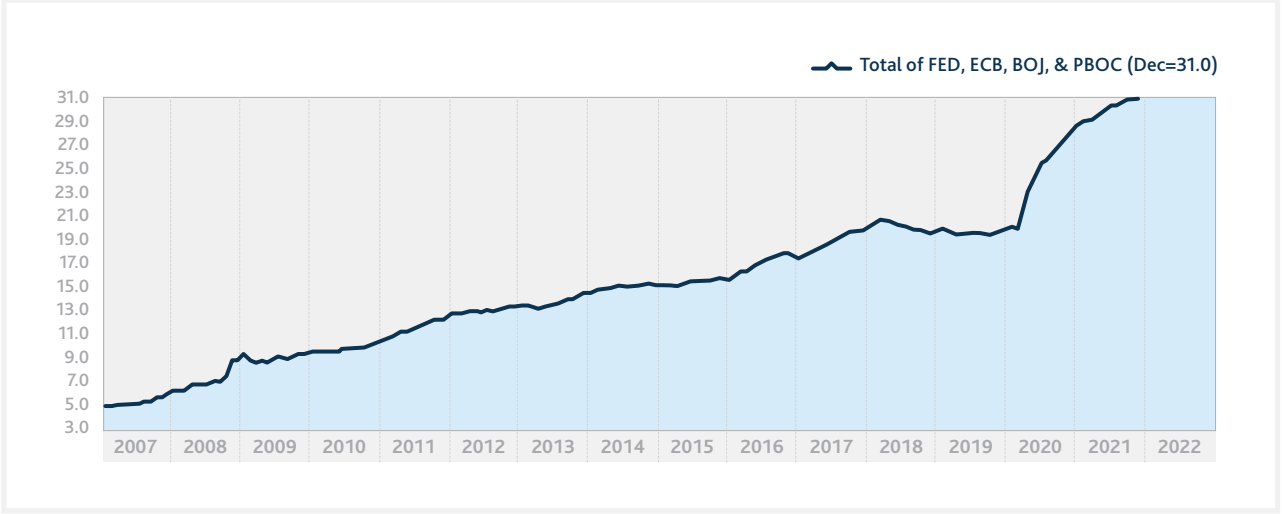
Keep in mind, however, that fiscal spending creates more government debt, and the key is to apply this spending to productive uses, such as infrastructure, that have potential to produce more future tax revenue through increased economic growth. In the pandemic's case, government debt was not used for productive uses, but rather as emergency measures to fill the lost GDP production of the private sector. The impact, therefore, was purely inflationary.

Total Assets of Major Central Banks (Figure 1 – Trillion, Dollars, NSA)



Source: Harver Analytics

Total Assets of Major Central Banks (Figure 2 – Trillion, Dollars, NSA)



Source: Harver Analytics

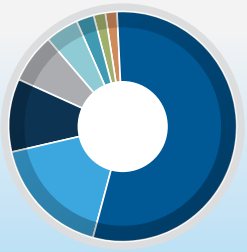
Structural Fiscal Imbalances are Presenting Headwinds to De-lever

It is one thing to be highly indebted; however, it is an increasingly adverse scenario if future growth prospects prevented government tax receipts from growing enough to pay down or service government debt. The largest source of the Government of Canada's revenue is overwhelmingly personal income tax, representing 55.2% of total revenue.[6]

Resultingly, working age income earners will have to support the Government of Canada's revenues.

The key issue, however, is that secular demographic trends are primarily contributing to the lack of future tax receipt growth and ballooning future expenses, preventing governments from balancing their budgets.

COMPOSITION OF GOVERNMENT OF CANADA REVENUES FOR 2020-21



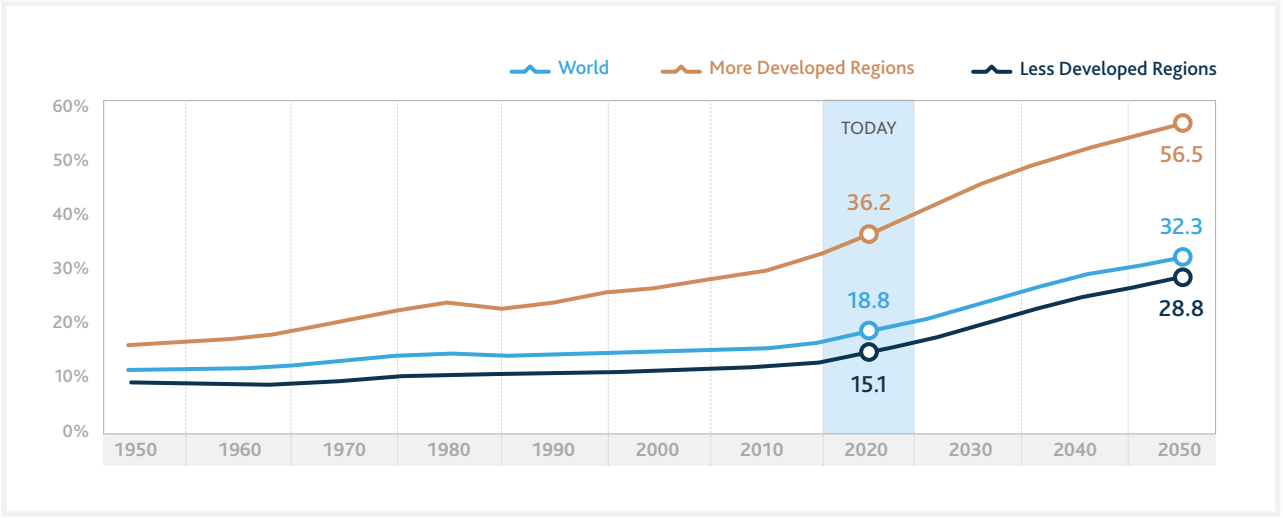
Total:
$316.4 billion

55.2%	Personal Income Tax
17.1%	Corporate Income Tax
10.2%	GST
7.1%	EI Premiums
4.6%	Other Taxes and Duties (Excluding GST)
2.6%	Non-resident Income Tax
1.4%	Proceeds From the Polution Pricing Framework
1.8%	All Other Revenues

Aging Demographics – Contributing Factor to Fiscal Imbalances

According to the United Nations,[7] decelerating growth and, in some cases, an outright decline of the working age population (25-64 years old) relative to the share of the elderly (65 years or older) are forecasted in every part of the world over the next few decades. Increasing life expectancies and declining birth rates globally are key contributors to these trends.

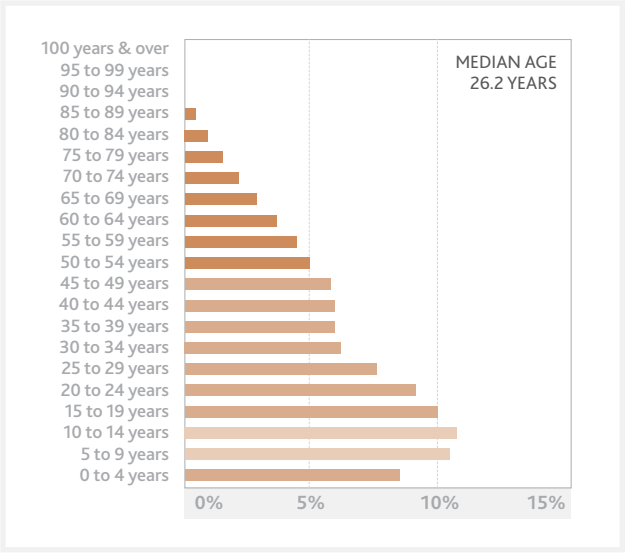
Old-Age Dependency (Population Aged 65+ per 100 Working Age Population 25-64)



Source: United Nations

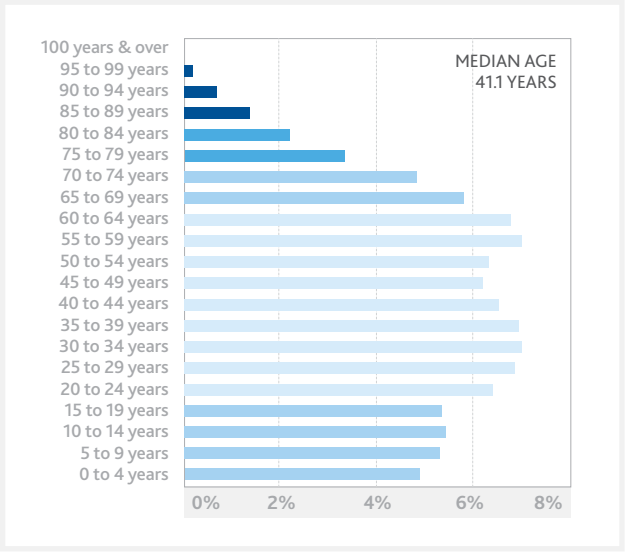
Working age populations earn and spend about double of those on fixed incomes – drivers of GDP growth and, thus, government tax revenue. The elderly tend to utilize little to no credit and focus on paying off their debts – credit destruction, which is deflationary to future GDP growth. Canada's population has structurally changed in the last 50 years, as the following graphs depict. With a fertility rate of only 1.5 (lower than all other G7 nations except Italy and Japan) and a median age over 41 years (also among the highest of other G7 nations),[8] it is no wonder that Canada has positioned itself as the most welcoming country for immigrants[9] to offset these trends.

1971 – Canada Population Distribution by Age



Source: Statistics Canada

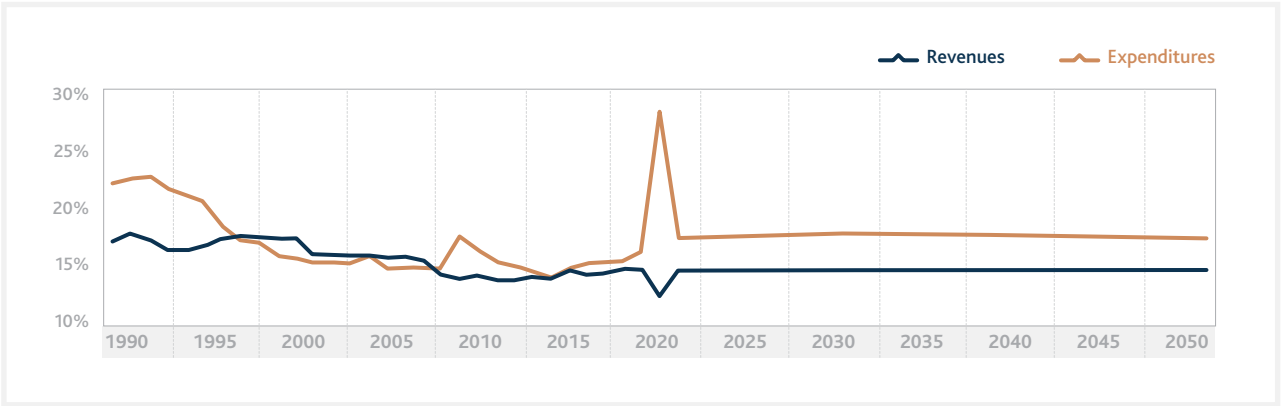
2021 – Canada Population Distribution by Age



Source: Statistics Canada

A near doubling of the old-age dependency ratio for more developed regions or advanced nations suggests that entitlement programs promised to citizens such as retirement pensions, healthcare benefits, and old age security will become a larger expense item on government income statements with less working age taxpayers or revenue to shoulder those expenses. Canada's fiscal position is likely not immune to these demographic headwinds. The Department of Finance forecasts the persistent structural imbalance in fiscal revenues and expenses over the next few decades.[10]

Canada's Fiscal Squeeze in Historical Perspective and Forecast (Percent of GDP)



Sources: Canada, Department of Finance (2019a and 2020a); Calculations by authors

Distilling Down the Secular Trends – What to Expect Ahead

Highly indebted advanced governments understand they are facing structural headwinds, primarily driven by demographics, that will impede their ability to de-lever their balance sheets through GDP growth. Resultingly, it is likely to assume that history rhymes and governments will be motivated to create a prolonged period of **negative real interest rates** to ease the debt burdens.

Again, this policy is executed by central banks continuing to expand their balance sheets to provide accommodative financial conditions to sustain higher inflation. In fact, many central banks have telegraphed to the public that they have fallen short on meeting their inflation targets since the GFC and are intentionally targeting higher average inflation readings to compensate. The expanding balance sheets will likely create the monetary inflation needed to help the governments carry on their large deficit spending by issuing bonds, monetized by their respective central banks.

Furthermore, interest rate policy is likely to lean on the lower side of consensus expectations to reduce the interest expense burden on governments that can exacerbate the problem if interest expenses begin to crowd out government budgets. Progressively, there may be short periods of coordinated fiscal and monetary efforts to rein in inflation if it gets too out of hand (similar to current events) as high inflation disproportionately affects the poor – those who do not have excess income month-to-month to absorb rising food, shelter, and energy costs. Ultimately, those conditions will likely not be able to persist for long until government balance of payment problems re-emerge. Interest rates must remain below the rate of inflation for a sustained period to help governments avoid an outright default on their debt – a much worse economic situation that could lead to a global depression. When government debt to GDP levels are eventually reduced to more politically palatable and sustainable levels, the macro-environment can normalize back to a positive real interest rate regime – likely decades away.

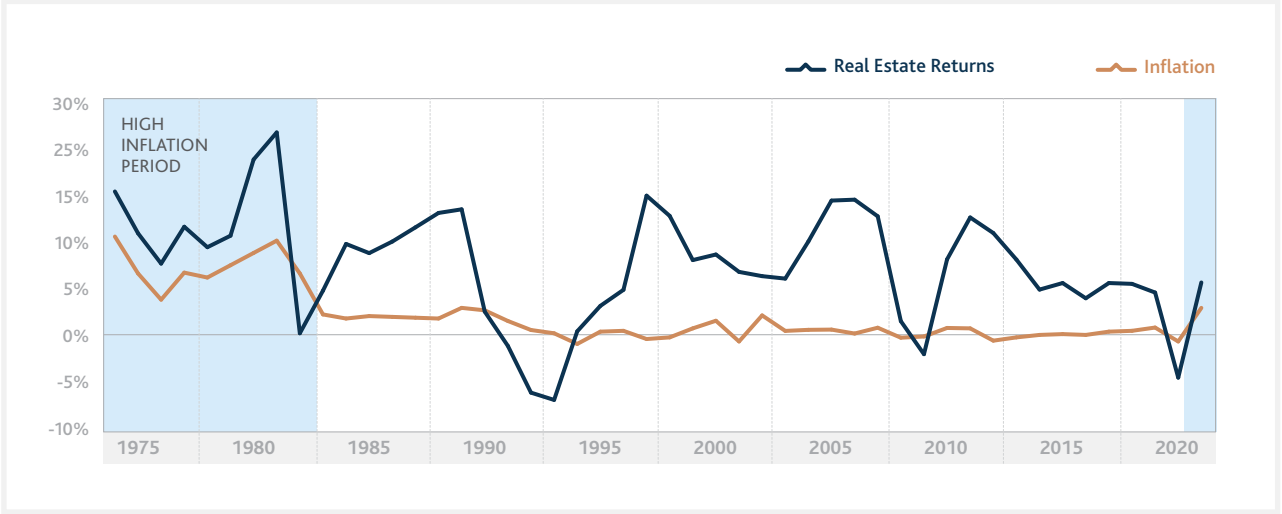
Implications of Negative Real Interest Rates for Real Estate

Real Estate Response to Higher Inflation

History has proven when inflation rises to higher levels that real estate exhibits a higher correlation to preserve purchasing power, primarily due to rents that grow with inflation and the intrinsic value in land, which tends to appreciate due to its scarcity.

Real estate is well-known by the institutional investor network as a **real asset** and, as such, should capture increased capital allocations during periods of higher inflation and especially during negative real interest rate environments. The recent inflation acceleration of 2021 and early 2022 is coinciding with Canadian real estate performance acceleration. The asset class provides an opportunity to outperform as economies recover from COVID-19 lockdowns over the next few years. Furthermore, increased inflation protection exists for landlords who proactively focus on structuring leases with CPI-links.

Higher Inflation, Higher Correlation



Source: MSCI, Statistics Canada

Real Estate Response to Lower Long-Term Interest Rates

During an inflationary environment, one would expect to see a gradual rise in interest rates, but based on the thesis of this report, one would expect a general benign response from interest rates to create a favourable negative real interest rate regime. Rental growth benefits are likely to more than offset interest rate effects. This directly translates to a reduced response in mortgage rates and discount rates used to arrive at value conclusions. Finally, given the competitiveness of the Canadian commercial real estate market and the secular shift toward more pension plan allocation to real estate, it is highly likely that capitalization rates will not, over a full cycle, expand enough to fully discount the inflation. Remember the first example – negative real interest rates cause savers to look elsewhere when banks or fixed-income investments pay interest rates well below the rate of inflation. This shifts fixed income capital out the risk curve into asset classes that can preserve purchasing power – real estate is time-tested at doing this.

Concluding Thoughts

Negative real interest rates are here to stay for the long-term; government debt burdens likely cannot be reduced otherwise. Runaway inflation will need to be tempered to ensure economic and social stability, but will ultimately have to run moderately higher than interest rates. Resultingly, real estate performance should thrive in this environment as the asset class has proven to provide protection against higher inflation and thrive in a longer-term lower interest rate environment.

Sources:

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2 https://www.usinflationcalculator.com/inflation/historical-inflation-rates/; https://tradingeconomics.com/united-states/government-debt-to-gdp https://www.thebalance.com/national-debt-by-year-compared-to-gdp-and-major-events-3306287

3 https://www.iif.com/Publications/ID/4792/Global-Debt-Monitor-EM-Debt-The-Good-the-Green-and-the-Ugly

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