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THE UNINTENDED CONSEQUENCES OF CENTRAL BANK-INDUCED LOW INTEREST RATES

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INTRODUCTION

Since 1991, the Bank of Canada, in agreement with the federal government, has set its monetary policy to keep annual inflation at 2%, the midpoint of its 1% - 3% target range.¹ This target is believed to be consistent with maximum economic growth and stable prices.² The Bank has a range of policy tools to influence growth and prices, and the authority to use them.³ In response to economic problems—ranging from slow economic growth to financial crises—the central bank has acted over time to loosen monetary policy.⁴ By pushing interest rates lower, central bank governors seek to encourage economic growth, and by raising rates, to limit inflationary pressures.⁵

Yet while almost all will agree that monetary policy does indeed exert a potent influence on the economy, that same potency leads to widespread economic distortions and negative outcomes that unfortunately affect some parts of society more than others. What has made the recent past unique is the central bank's actions to maintain continuously low interest rates over extended periods of time.

What has inflicted significant negative economic effects is the central bank's asymmetrical actions in lowering rates in times of trouble but not raising them when the economy stabilizes.

This paper's purpose is to review the impacts of the Bank of Canada's induced continuous low interest rate policy on the Canadian economy. It will specifically highlight the policy's unintended consequences, estimate their severity, identify those groups most affected, and highlight the policy's economic distortions. The paper also recommends a variety of policy actions that both the central bank and federal government can undertake which will help alleviate those negative effects.

This paper does not question the need to use monetary policy in times of financial crisis or its short-term beneficial effects. The Bank of Canada needed to and did use its policy tools to lower interest rates and provide liquidity during the 2008 financial crisis and the 2020 COVID-19 related economic disruption. Rather, what has inflicted significant negative economic effects is the central bank's asymmetrical actions in lowering rates in times of trouble but not raising them when the economy stabilizes and growth has returned. Persistently low interest rates have inhibited growth and employment, and have created asset bubbles in the real estate and equity markets that are both exacerbating economic inequality and undermining financial stability.

1. Bank of Canada, Core Functions, Monetary Policy, December 2021.

2. Bank of Canada, *Monetary Policy Framework Renewal*, December 2021, p. 11.

3. *Ibid.*, pp. 48-55.

4. Bank of International Settlements, BIS Statistics Explorer, Central Bank Policy rates, Table L1, [4,12], December 2021.

5. Bank of Canada, About the Bank, Educational Resources, Explainers, Understanding how monetary policy works, April 5, 2021.



CHAPTER 1

A Time of Low Interest Rates

In March 2020, the Bank of Canada lowered its policy interest rate target to 0.25%, in response to the unfolding pandemic and its impact on the economy.⁶ The Bank maintained that rate for the next two years, until March 2, 2022, when it finally raised it to 0.5%.⁷ However, when we look at interest rates over the past decades (see Figure 1-1), we see that the Bank has kept them low for a much longer period. For the past 12 years, in fact, the Bank of Canada's policy interest rate (a nominal interest rate and the target rate the central bank sets and would like to see for the overnight lending rate) has never exceeded 1.75%.⁸ Influencing the overnight rate is the main way the Bank of Canada influences short-term rates.⁹

The Bank of Canada's policy real interest rate, which is the policy interest rate less expected inflation, has been even lower.¹⁰ Since 2008, this rate has been positive just 17% of the time, while it has been zero or negative 83% of the time.¹¹ According to conventional wisdom, central bank policy can only influence real interest rates in the short-term.¹² Real interest rates are determined by more secular factors, such as demographic shifts and declining growth rates.¹³ However, there is some evidence that monetary policy can affect economic output over the medium term, and therefore affect real rates, more than previously thought.¹⁴ A recent Bank of

International Settlements working paper also suggests that central bank policy may significantly impact the real interest rate level through an information feedback loop.¹⁵ The private sector interprets the central bank's lower policy rate as a sign of a declining real rate, therefore lowering aggregate demand below what it would have been otherwise. The Bank then interprets the lower aggregate demand as a need for further monetary easing.¹⁶ If central banks do influence real interest rates more than originally thought, then they will need to rethink their policy actions. Overly loose monetary policy in response to declining economic conditions may worsen matters in the medium to longer term.¹⁷

The Bank of Canada's policy real interest rate is the policy interest rate less expected inflation. Since 2008, this rate has been zero or negative 83% of the time.

After peaking in 1981, the Bank of Canada started lowering interest rates, in fits and starts, but it was during the credit crisis in 2007 that the pace quickened. Over a period of less than two years, the central bank slashed its rate nine different times, until it reached its effective lower bound of 0.25%. While the credit crisis ended in 2009, the bank never raised its policy rate back up to pre-crisis levels.¹⁸ Later, when the COVID-19 pandemic froze economic activity, with interest rates still low, the central bank had little room to respond. It then turned to unconventional monetary tools. For one, it began purchasing large quantities of federal government bonds in the open market, a policy referred to as "quantitative easing" (QE).¹⁹ Buying government bonds raises their prices, and lowers their yields, which sets interest rates on long-term debt.²⁰ What the central bank could not do with its policy setting interest rate, it accomplished with QE. It was also prepared to carry out yield curve control, which is an even more targeted

6. Stephen S. Poloz, Press Conference Opening Statement- March 27 2020, Bank of Canada, March 27 2020.

7. Bank of International Settlements, *op. cit.*, footnote 4; Bank of Canada, "Bank of Canada increases policy interest rate," Press release, March 2, 2022.

8. The overnight lending rate is the interest rate financial institutions charge one another for one-day loans.

9. Bank of Canada, *op. cit.*, footnote 1.

10. The overnight lending rate is a nominal interest rate. A nominal rate is a stated interest rate that two parties agree upon. For example, if the interest rate, or yield, on a 10-year Government of Canada bond is 2%, that would be the nominal interest rate for that bond. However, if inflation is expected to average 1.5% per year over 10 years, then the real interest rate on the bond would be its nominal rate less the expected inflation rate of 1.5%. So, in this example, the real rate of interest on the bond would be 0.5%.

11. Simona Malovaná et al., "A prolonged Period of Low Interest Rates: Unintended Consequences," Czech National Bank, September 13, 2021, p. 5.

12. Bank of Canada, *op. cit.*, footnote 1.

13. Carlos Carvalho, Andrea Ferrero, and Fernanda Nechio, "Demographics and real interest rates: Inspecting the mechanism," *European Economics Review*, Vol. 88, September 2016, pp. 225-226.

14. Mikael Juselius et al., "Monetary Policy, the Financial Cycle, and Ultra-Low Interest Rates," *International Journal of Central Banking*, Vol. 13, No. 3, September 2017, pp. 55-82.

15. Phurichai Rungcharoenkitkul and Fabian Winkler, *The Natural Rate of Interest Through a Hall of Mirrors*, Bank of International Settlements, BIS Working Papers, No. 974, October 20, 2021, p.1.

16. *Ibid.*, p. 18.

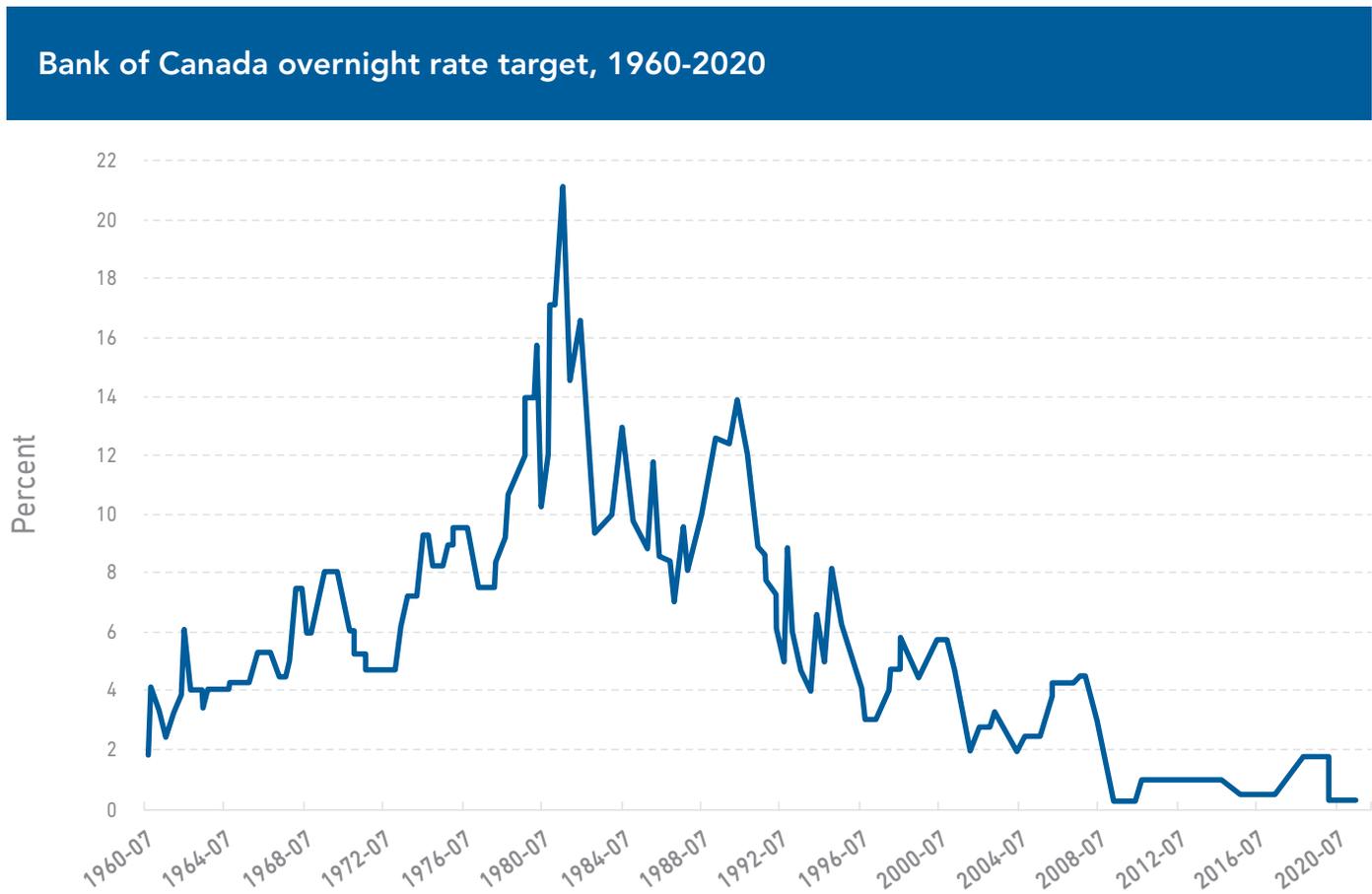
17. *Ibid.*, pp. 34-35.

18. Bank of International Settlements, *op. cit.*, footnote 4.

19. Paul Beaudry, Our quantitative easing operations: looking under the hood, Bank of Canada, December 2020, p. 2.

20. *Ibid.*, p. 5.

Figure 1-1



Source: Bank of International Settlements, BIS Statistics Explorer, Central Bank Policy rates, Table L1, [4,12], December 2021.

intervention for lowering long-term interest rates.²¹ While the above is an all too brief summary of central bank interest rate policy, we can conclude that the Bank of Canada was very aggressive in lowering both short- and long-term interest rates, and has indeed maintained a very low interest rate policy for the past 12 years.

Determining Interest Rates

An interest rate is the cost of money for a borrower, and a reward or return for a saver. At higher interest rates, more people are willing to forego current consumption and instead lend money in the expectation of greater future consumption; however, borrowers are less likely to borrow money since they have fewer projects or in-

The Bank of Canada was very aggressive in lowering both short- and long-term interest rates, and has maintained a very low interest rate policy for the past 12 years.

vestments that are profitable enough to cover the higher borrowing costs. As interest rates fall, the reverse holds true for savers and borrowers. Thus, interest rates influence an individual's preference for present versus future consumption (time preference), as well as a business's investment choices. If the interest rate is determined by the market, without interference, it reflects the thoughts, wishes, needs, opportunities, and concerns of all borrowers and savers together.

21. *Ibid.*, p. 8. Other measures announced included provincial and corporate debt and money market asset purchases, and liquidity support for financial institutions. The federal government also announced massive fiscal support and stimulus program spending for individuals and businesses. These policy measures are outside the direct scope of this paper.

We can and should ask: What superior or additional knowledge does a central bank have that would make its self-imposed arbitrary interest rate somehow better than the market interest rate? The term “arbitrary” is specifically used, as it is impossible to justify the Bank’s imposed interest rate as an optimal rate.

To put central bank influence on interest rates into perspective, one can ask the following question: What would be the benefit if a central authority stepped in and arbitrarily changed the market-determined price for agricultural products? If prices were set lower, consumers might initially benefit, but producers would soon change their behaviour and stop, or at least reduce, production if they could not cover their costs and earn an appropriate return. This would reduce supply. There would then be an imbalance between the supply of and demand for agricultural products, with demand exceeding the available supply. Store shelves would soon be empty, and a black market would form allowing the products to be traded at a price closer to their true value. People would be worse off compared to letting the market set the price where there would be no excess demand and no shortage of supply. That price is referred to as the market clearing price.

If the interest rate is determined by the market, without interference, it reflects the thoughts, wishes, needs, opportunities, and concerns of all borrowers and savers together.

Conceptually, we can look at interest rates the same way. An initial arbitrary change by the central bank may have an initial benefit (for example, lower rates will stimulate the economy in the short term), but over time, if the central bank does not allow a more market-driven interest rate, adverse consequences will follow, as we shall see in the second chapter.



CHAPTER 2

The Negative Unintended Consequences of Artificially Low Interest Rates

This chapter examines several important consequences of the Bank of Canada and other central banks maintaining low interest rates as they have over time. While the list presented here is certainly not exhaustive, the items are significant, and are detrimental to many.

Housing Affordability

Low interest rate policy leads to housing affordability problems. There has been a constant stream of reports and commentary from news outlets and industry participants discussing higher house prices,²² greater household indebtedness,²³ and lower housing affordability.²⁴ Indeed, the logic is quite straightforward, as lower interest rates allow households to take on greater mortgage debt. Those who could not afford to purchase a house may now be able to do so, and those who already own homes can now afford to purchase one that is more expensive. Collectively, this creates greater demand for housing, resulting in higher home prices. Figure 2-1 shows that house prices are in fact rising much faster than incomes in Canada in recent years, which is increasing affordability problems.

Empirical research supports the effect of interest rates on housing affordability. For instance, a large study on interest rates, mortgages, and the housing market, led by Òscar Jordà, an economist with the University of California, Davis and Senior Advisor to the Federal Reserve Bank of San Francisco, came to the following conclusion:

The analysis reveals that...[a] decline in the short [term interest] rate will result in a considerable increase in house prices. This decline does not appear to be spurious. The intermediate steps linking the short rate decline with a decline in the long

rate and hence an increase in mortgage lending activity are all consistent with this result.²⁵

Housing affordability primarily affects millennials, those born between 1981 and 1996 who have not yet entered the housing market. In 2017, it took around thirteen years for millennials to save for a down payment on an average priced house, compared to five years for baby boomers in 1976.²⁶ Table 2-1 shows that for those owning their residence, median household income for millennials is significantly higher than that of previous generations at the same age. However, as housing prices have grown faster than incomes, millennials carry much larger debt loads than the previous generations, both in absolute terms and as a ratio of their incomes. Even if millennials can currently afford to carry a large mortgage due to very low interest rates, their higher level of indebtedness increases the risk of financial distress or insolvency in the face of a job loss, illness, or even moderately higher interest rates.

In 2017, it took around thirteen years for millennials to save for a down payment on an average priced house, compared to five years for baby boomers in 1976.

Tiff Macklem, Governor of the Bank of Canada, recently acknowledged these risks:

The biggest domestic vulnerabilities are those linked to imbalances in the housing market and high household indebtedness. ... Consumer preference, combined with low interest rates that make borrowing more affordable, has boosted demand for single-family homes...

The increased issuance of mortgages with high loan-to-income ratios is of most concern. ...It is important to understand that the recent rapid increases in home prices are not normal. Even without a shock, some of the factors that caused prices to rise fast could reverse later, and that could leave some households with less equity in their homes. And interest rates are unusually low.

22. Joseph Edgar, "Will Rising Interest Rates Burst the Housing Bubble?" *Forbes*, September 21, 2021.

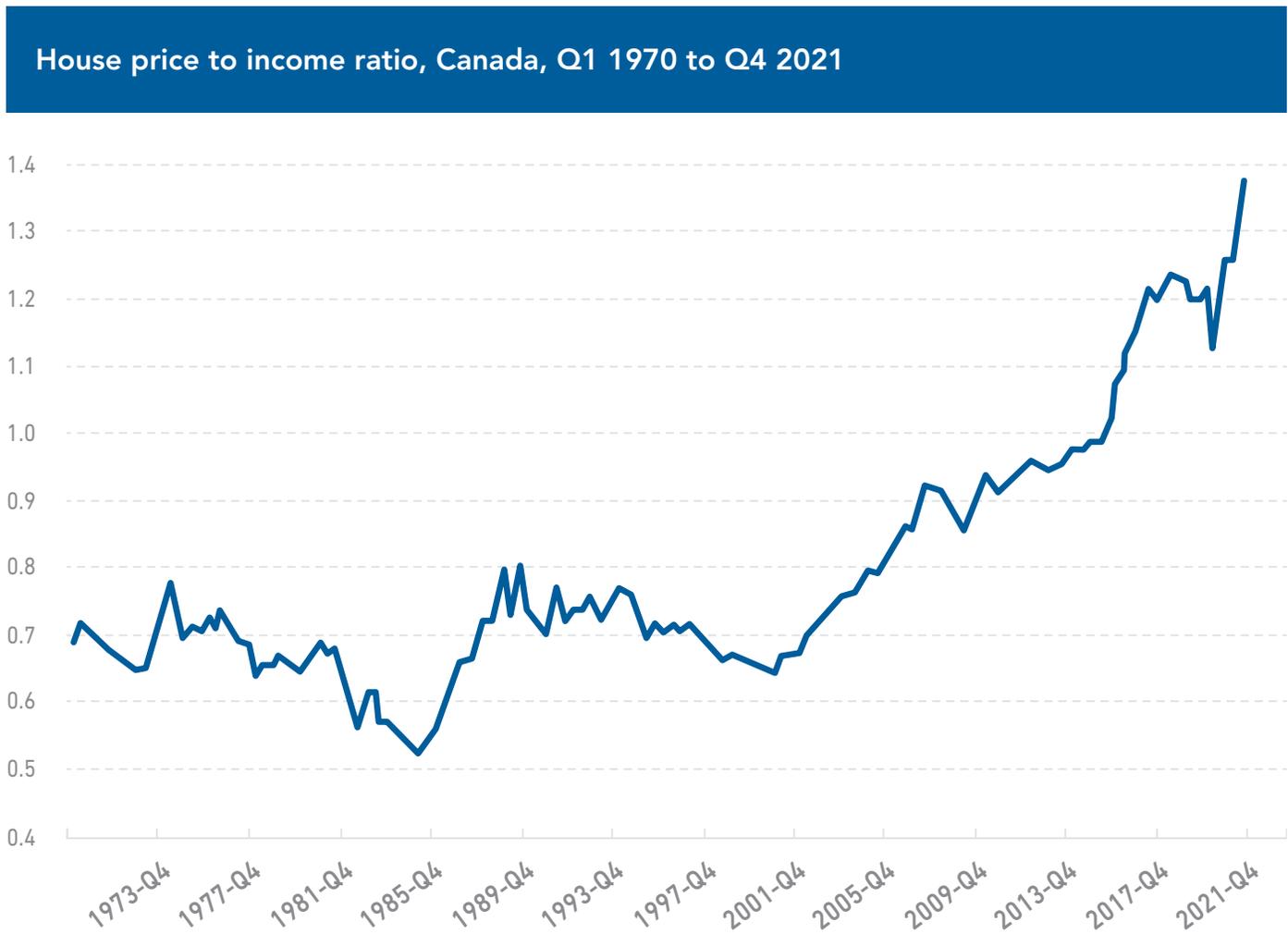
23. Mariana Emiris and François Koulischer "Low interest rates and the distribution of household debt," SSRN, April 2021, p. 25.

24. Domonic Purviance, "Low Interest Rates, Inventories Affect Housing Affordability," Federal Reserve Bank of Atlanta, March 30, 2021.

25. Òscar Jordà, Moritz Schularick, and Alan M. Taylor, "Betting the House," *Journal of International Economics*, Vol. 96, July 2015, p. S15.

26. Bobby Hristova, "It may take millennials 29 years to save enough to afford a home in Canada's biggest cities," *Financial Post*, July 3, 2019.

Figure 2-1



Sources: OECD, Statistics, Main Economic Indicator, Prices, Analytical house price indicators, House Price to Income Ratio, accessed on February 8, 2022.

Borrowers and lenders both have roles in ensuring that households can still afford to service their debt at higher rates.²⁷

Stock Valuation

There has been much commentary and reporting on central banks' (specifically the U.S. Federal Reserve Bank's) influence over equity valuations.²⁸ Interest rates are an important factor in equity values. Stock prices represent the value today of cash flows a business expects to generate for investors next year, the year after,

27. Tiff Macklem, Opening Statement following the release of the *Financial System Review*, Bank of Canada, May 20, 2021, p. 2.

28. William B. English, Skander J. Van den Heuvel, and Egon Zakrajšek, "Interest rate risk and bank equity valuations," *Journal of Monetary Economics*, Vol. 98, p. 115.

Their higher level of indebtedness increases the risk of financial distress or insolvency in the face of a job loss, illness, or even moderately higher interest rates.

and every year after that. Calculating today's value, or the *present value* in finance parlance, requires the business's expected future cash flows to be discounted at some rate. The greater the discount rate, the less the future cash flows are worth today. Since discount rates are heavily impacted by interest rates, the lower the interest rate, the lower the discount rate used to value stocks, and *ceteris paribus*, the higher the stock price will be.

Table 2-1

Median after-tax incomes, house values, and mortgage values, 2016 constant dollars			
	Millennials	Generation X	Baby boomers
After-tax income	\$83,197	\$65,523	\$64,800
Principal residence value	\$329,000	\$182,441	\$137,723
Mortgage value	\$218,000	\$117,481	\$67,802
Mortgage to after-tax income ratio	2.62	1.79	1.05

Source: Andrew Heisz and Elizabeth Richards, "Economic Well-Being Across Generations of Young Canadians: Are Millennials Better or Worse off?" Statistics Canada, April 18, 2019.

Over the past 20 years, the U.S. and Canadian central banks have maintained a low policy interest rate—while equity prices have generally risen. This is consistent with the Bank of Canada statement that "interest rate changes affect the economy through four main channels... [one of which is by changing] the prices of assets such as houses, stocks and bonds."²⁹

There is also a perception that the U.S. Federal Reserve now acts as a backstop when equity markets decline. This is referred to as the "Greenspan Put," a play on the term "put option," which is a contract that offers the holder insurance against a decline in an asset's value.³⁰ Over the past 40 years, when stock prices declined in any significant manner, there has been a tendency for the Federal Reserve either to adopt more accommodative monetary policy or to reverse a restrictive policy it may have had in place. Examples³¹ include:

- In late 2000, due to recessionary pressure, the Fed began cutting interest rates, all the way from 6.5% down to 1% by mid-2003, setting up a large increase in stock prices until 2007.
- In 2011, the Federal Reserve only began raising rates, from close to zero, two years after the recession ended in June 2009.

- In late 2018, the Federal Reserve reversed its position on interest rate hikes after the S&P 500 Index fell about 16% in less than a month following the Fed's statement on its intent to hike interest rates in the following year.

The lower the interest rate, the lower the discount rate used to value stocks, and *ceteris paribus*, the higher the stock price will be.

In addition to widespread commentary and acceptance in the financial press of a "Greenspan Put," Professors Anna Cieslak from Duke University and Annette Vissing-Jorgensen from the University of California at Berkeley have also found evidence that the Federal Reserve loosens monetary policy in reaction to low equity returns.³²

Over a 20-year period ending December 2021, the Toronto Stock Exchange, as measured by the S&P/TSX Composite Total Return Index, grew at an average annual rate of 8.1%.³³ In comparison, wages in Canada grew on average about 2.8% per year over the same period.³⁴ Roughly 40% of Canadians hold equity investments

29. Bank of Canada, *op. cit.*, footnote 5.

30. Howard Gold, "Opinion: The Federal Reserve's policies have drastically increased inequality," *Market Watch*, August 17, 2020.

31. *Idem*.

32. Anna Cieslak and Annette Vissing-Jorgensen, "The Economics of the Fed Put," *The Review of Financial Studies*, Vol. 34, No. 9, September 2021, pp. 4082-4083.

33. Data retrieved from the S&P Capital IQ.

34. Statistics Canada, Table 14-10-0064-01: Employee wages by industry, annual, 2022.

directly in some sort of investment account.³⁵ High income earners are more likely to invest in equities, and with larger dollar values.³⁶ Given that equities are growing almost three times faster than wages, this will disproportionately benefit high income earners. Thus, central bank policy may increase wealth disparity.

Bank of Canada Governor Macklem recently acknowledged this problem: “QE can boost wealth by increasing the value of assets, such as the investments Canadians have in their registered retirement savings plans or company pension plans. But... these assets aren’t distributed evenly across society. As a result, QE can widen wealth inequality.”³⁷

Resource Misallocation

The combination of central bank-imposed low interest rates and massive fiscal stimulus has now been used in each of the last two financial crises, namely the 2008 credit crisis and the 2020 COVID-19 pandemic.³⁸ While no doubt both monetary and fiscal actions were needed to stabilize the credit markets and financial institutions, as well as to provide emergency support to select businesses and individuals, the extent of the QE and actions to lower interest rates, along with their duration, is arguably harmful. Sustained monetary and fiscal intervention over a long period of time distort market activities, leading to misallocation of resources that can hinder economic recovery, the exact opposite of what was originally intended.³⁹ There are two ways in which this misallocation occurs.

First, underperforming companies are propped up. Here, the effects are two-fold. By accessing cheap and easy credit, firms survive that would otherwise have failed. This inhibits the release and reallocation of human capital and real assets for more productive uses. Figure 2-2 shows the decline in business failures, along with declines in the overnight interest rate, between 2005 and 2020.

The trend toward fewer business failures may seem positive, but abnormally low business failures are not necessarily good for the economy. In normal times, businesses start up, and some succeed while others fail. The resources, in human capital and real assets from the bankrupted businesses, are reallocated by the market to either successfully operating businesses or newly created ones. This resource reallocation is an essential part of ensuring that assets are put to their most productive possible uses. When new and existing successful firms can acquire the resources to grow, employment increases, government receives greater tax revenue due to higher profits, and investors receive a return commensurate with the risk they are taking. However, government policies, including persistently low interest rates, have kept many failing businesses from going bankrupt.⁴⁰ This in turn has interrupted the recycling and reallocation of talent and assets.

Sustained monetary and fiscal intervention over a long period of time distort market activities, leading to misallocation of resources that can hinder economic recovery.

Financially weak firms that survive by accessing cheap credit also add to deflationary pressures by maintaining excess supply in their product markets.⁴¹ This keeps prices lower and reduces profitability for all. We refer to such businesses as being zombie companies. The more zombie companies that are operating, the more they can inhibit economic growth and productivity—both essential elements to a full economic recovery. The Bank of Canada recently released a study on zombie companies which found that while the number of such companies has grown over time, their overall impact on the Canadian economy is quite small.⁴² This study, however, looked at the threat to financial stability rather than productivity, and may also underestimate the size and number of zombie firms in Canada.⁴³

35. Nicole McKnight and Richard Laycock, “Stock Trading Statistics Canada,” *Finder*, June 8, 2021.

36. Kim Parker and Richard Fry, “More than half of U.S. households have some investment in the stock market,” *Pew Research Center*, March 25, 2020.

37. Tiff Macklem, “The benefits of an inclusive economy,” Bank of Canada, May 13, 2021, p. 5.

38. Tiff Macklem, “Reflections on Monetary Policy After the Great Recession,” Bank of Canada, October 5, 2010, pp. 2-4; Tiff Macklem, “Monetary policy in the context of COVID-19,” Bank of Canada, June 22, 2020, pp. 3-4.

39. Bank of Canada, About the Bank, Educational Resources, Explainers, Understanding quantitative easing, December 17, 2020.

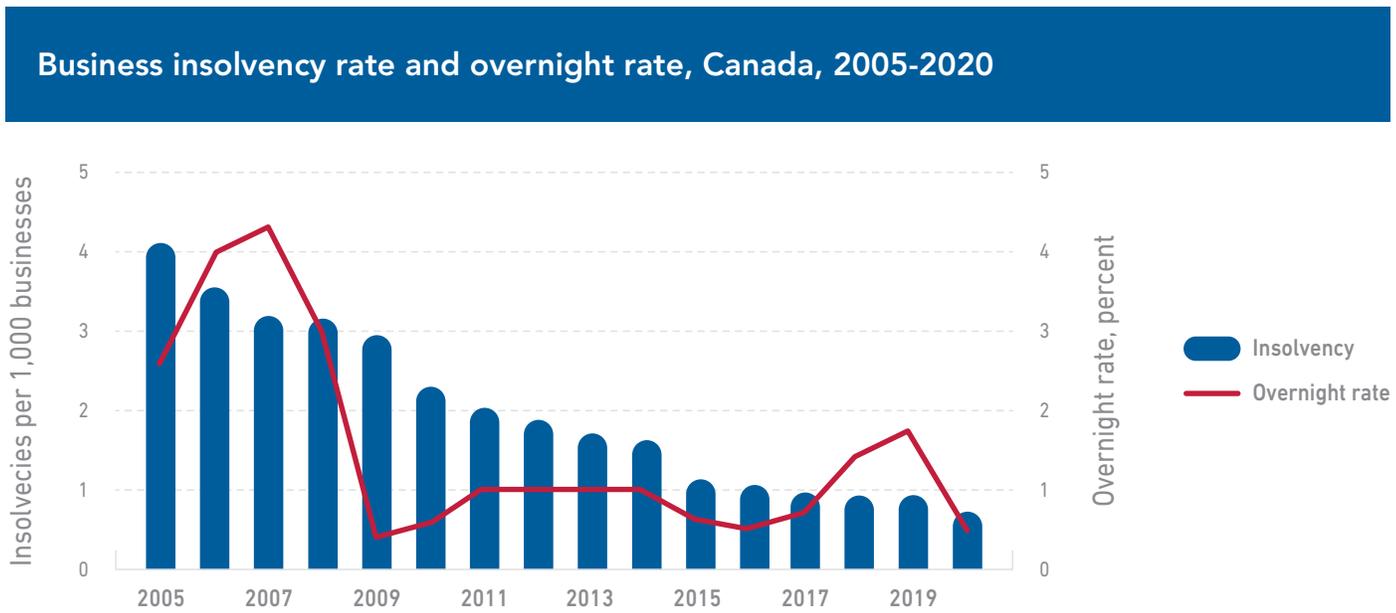
40. Ryan Banerjee and Boris Hofmann, “The Rise of Zombie Firms: Causes and Consequences,” *BIS Quarterly Review*, September 2021, pp. 71-72.

41. William Roy White, “It’s Worse than ‘Reverse’: The Full Case Against Ultra Low and Negative Interest Rates,” Institute for New Economic Thinking Working Paper Series, No. 151, March 2021, p. 13.

42. Timothy Grieder and Juan Ortega, “A Financial Stability Analysis of Zombie Firms in Canada,” Bank of Canada, February 18, 2020, pp. 2-5.

43. One common definition of a zombie firm is a company at least 10 years old that has not had sufficient operating income to cover its interest expenses for at least three years in a row. Therefore, it is too early to tell the impact of the 2020 accommodative monetary policy on the growth of zombie firms.

Figure 2-2



Sources: Government of Canada, Annual Insolvency Rates, 2021; Organization for Economic Co-operation and Development, Immediate Rates: Less than 24 Hours: Call Money/Interbank Rate for Canada, [IRSTCI01CAM156N].

There is a second but similar misallocation problem. A paper written by economists at the Barcelona School of Economics and the European Central Bank shows that a more permanent low interest rate environment has the effect of redirecting more capital to less (but still) profitable investments than would otherwise occur if interest rates were more neutral. At first, the lower interest rates provide a stimulative effect, as expected. However, if these lower rates become permanent, the less profitable companies crowd out more profitable companies from obtaining investment capital. Therefore, the redistributive capital effects from more profitable to less profitable companies more than offsets the stimulative effects of lower interest rates. How severe the crowding out effect may be is dependent upon how responsive the supply of capital is to changes in interest rates and the degree of financial frictions.⁴⁴

Moral Issues

On a philosophical level, there is a moral case to be made against central bank-imposed low interest rates. Using Scholastic doctrine, commutative justice principles suggest that if an interest rate charged is too high, it is unjust, and if a rate a lender receives is too low, that

By accessing cheap and easy credit, firms survive that would otherwise have failed. This inhibits the release and reallocation of human capital and real assets for more productive uses.

is also unjust.⁴⁵ Lenders are entitled to receive payment for what they give up by making loans (what in modern economics is referred to as an opportunity cost), for expenses incurred in the lending process itself (which includes inflation), and for extra payment based on a loan's riskiness.⁴⁶ A one-year Government of Canada bond yields approximately 1.10%.⁴⁷ Assuming that the time value of money is positive and inflation expectations are 2%, a yield of 1.10% does not satisfy the conditions just listed, and so commutative justice principles are not met.

44. Vladimir Asriyan et al., "Falling interest Rates and Credits Misallocation: Lessons from General Equilibrium," CEPR Discussion Paper No. DP16720, November 2021, p. 2.

45. A Scholastic framework is used here because Scholastic scholars looked at lending and charging interest from a principle of justice. There is no *intrinsic* right for charging interest under Scholastic doctrine. However, it is appropriate for the lender to receive extra payment based on *extrinsic* factors. "Commutative justice" is justice with respect to trade. See Joseph A. Burke, "The Scholastic Analysis of ZIRP: Justice, Usury, and the Zero Interest Rate Policy," *Journal of Markets and Morality*, Vol. 17, No. 1, 2014, pp. 105-124.

46. *Ibid.*, pp. 107-110

47. Y Charts, Canada 1 Year Treasury Bill Yield, consulted February 8, 2022.

Persistent low interest rates influenced by the central bank create winners and losers. Those who need to borrow are the winners, while those who save are the losers, as they earn a lower return on their fixed income investments. Many savers are retirees, and persistently low interest rates hurt them in particular. Retirees and all other savers have two choices—either they take on more risk in the “search for yield” or they buy bonds, term deposits, and other money market instruments and receive lower income. Either way, they are worse off. In their search for yield, they will hold more risk than they normally wish to, just to receive the same income they would have otherwise earned. Or if they keep investing in the same bonds and money market securities, they earn less and will be poorer than before. In this case, the central bank has knowingly created economic losers for the economic good of others.

Persistent low interest rates influenced by the central bank create winners and losers. Those who need to borrow are the winners, while those who save are the losers.

Low interest rates also create a perverse incentive for government to borrow too heavily, which has intergenerational moral implications. Cheaper borrowing costs mean more debt can be taken on without interest payments becoming too large. In fact, if rates fall low enough, it is possible for the government to increase borrowing and refinance maturing debt at the new lower rates so that its overall interest payments are actually lower than before. As shown in Table 2-2, in 2020/21, the net federal debt increased by \$358 billion (an almost 50% increase over the previous year), yet total interest charges are expected to be 16% less than the previous year. In her 2021 budget speech, Liberal Finance Minister Chrystia Freeland stated, “In today’s low interest rate environment, not only *can* we afford these investments, it would be short-sighted of us *not* to make them.”⁴⁸ From the finance minister’s perspective, there was not so much a perverse incentive, but rather an opportunity to borrow more. This is one reason why none of the three main federal political parties made debt or deficit reduction a priority in the 2021 election.⁴⁹ Yet the

intergenerational impact of leaving our children with large amounts of debt, most of which is for current consumption, can be considered morally problematic.

Debt Trap

The fact that very low interest rates provide a direct inducement for governments to borrow too heavily poses a big dilemma for monetary authorities. Low interest rate monetary policy is enacted to spur economic activity. If the policy spurs growth and inflationary pressure, then monetary policy should begin to tighten up, which would include raising interest rates. However, past experience shows that each time the central bank lowers interest rates, it either delays raising them again or does not increase them back up to their previous levels.⁵⁰ For instance, between 2008 and the COVID-19 pandemic, interest rates never did rebound to pre-2008 levels.⁵¹ Given that the low interest charges allow the government to carry larger debt loads, politicians find it easier to borrow more and more. There comes a point, however, when interest rates do rise, along with associated interest charges, and the government will have difficulty meeting the higher payments without austerity-creating expenditure reductions elsewhere. The central bank would then be reluctant to raise rates, and if they do not, inflationary pressures would become entrenched in the economy, with their destabilizing and misallocative effects. This is very problematic.

For example, between 1970 and 1981, annual inflation in Canada grew from about 3% to over 12%.⁵² Inflationary expectations became embedded in product prices and wages. The Bank of Canada finally decided to act in 1980.⁵³ It took the central bank boosting the short-term interest rate to 21%, recessionary periods over three years, and an unemployment rate of 12% to remove inflationary expectations that had been built into the Canadian economy.⁵⁴ The Bank of Canada’s actions in 1980 were necessary but difficult, and the ensuing downturn was considered one of the deepest since the Second World War.

50. Bank of International Settlements, *op. cit.*, footnote 4.

51. *Idem.*

52. International Monetary Fund, International Financial Statistics and data file, Inflation, consumer process (annual %) – Canada, 2020.

53. In fact, the US central bank along with the Bank of Canada introduced tight monetary policies to reduce inflation in their respective countries.

54. Bank of International Settlements, *op. cit.*, footnote 4; CBC Digital Archives, “Unemployment reaches all-time high in 1982,” CBC Television News Special, January 2, 1983.

48. Emphasis in original. Government of Canada, Department of Finance Canada, News, Budget 2021: Address by the Deputy Prime Minister and Minister of Finance, April 23, 2021.

49. The Conservative Party of Canada was the only party with a stated objective of balancing the budget, and even their plan was to do so only over 10 years.

Table 2-2

Canadian federal government debt and debt charges, billions of \$			
Budget year	Federal deficit	Public debt charge	Net federal debt
2018/19	\$14	\$23.3	\$685.5
2019/20	\$39.4	\$24.4	\$721.4
2020/21	\$354.2	\$20.4	\$1,079
2021/22 f	\$154.7	\$22.1	\$1,233.8
2022/23 f	\$59.7	\$25.7	\$1,293.5

Note: f = forecast

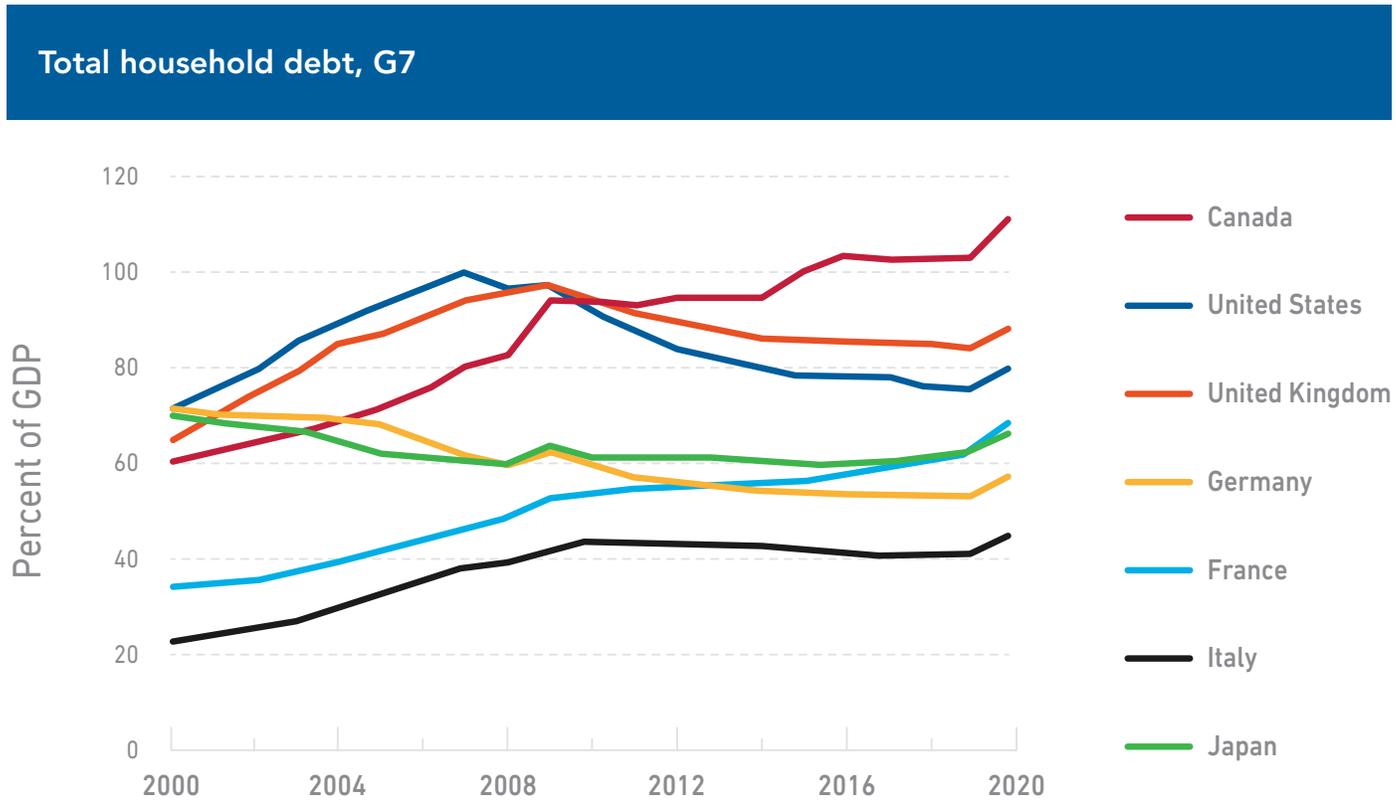
Source: Department of Finance Canada, Fiscal Reference Tables 2020, Government of Canada, 2020, p. 9; Government of Canada, *Budget 2021: A Recovery Plan for Jobs Growth, and Resilience*, April 19, 2021, p. 328.

Households and businesses are also subject to taking on too much debt due to very low interest rates. Figure 2-3 shows that Canadian households have the largest household debt load relative to GDP of any G7 country. Figure 2-4 shows that Canadian corporations have also become more levered over time, now ranking second highest in the G7. While Canadian government debt is not the highest (see Figure 2-5), it is large, and it grew at the fastest rate in 2020 compared to other mature economies.⁵⁵ While Canada may not have reached the debt trap point yet, we are approaching it faster than most of the other G7 countries.

The intergenerational impact of leaving our children with large amounts of debt, most of which was for current consumption, can be considered morally problematic.

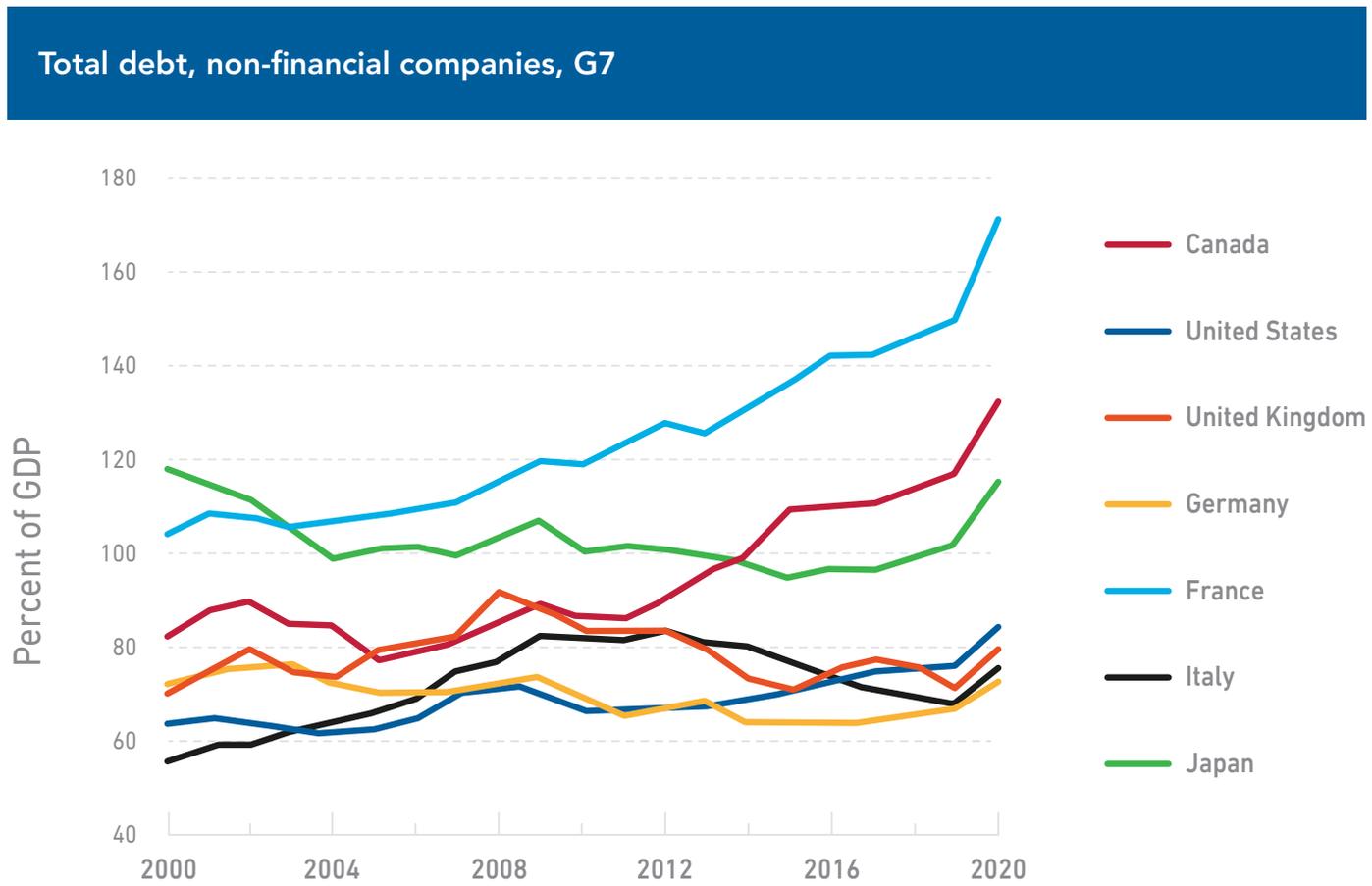
55. John Plender, "Debt dangers hang over markets," *Financial Times*, January 8, 2021.

Figure 2-3



Sources: Bank of International Settlements, BIS Statistics Explorer, Credit to the non-financial sector, Credit to households (core debt), accessed February 11, 2022.

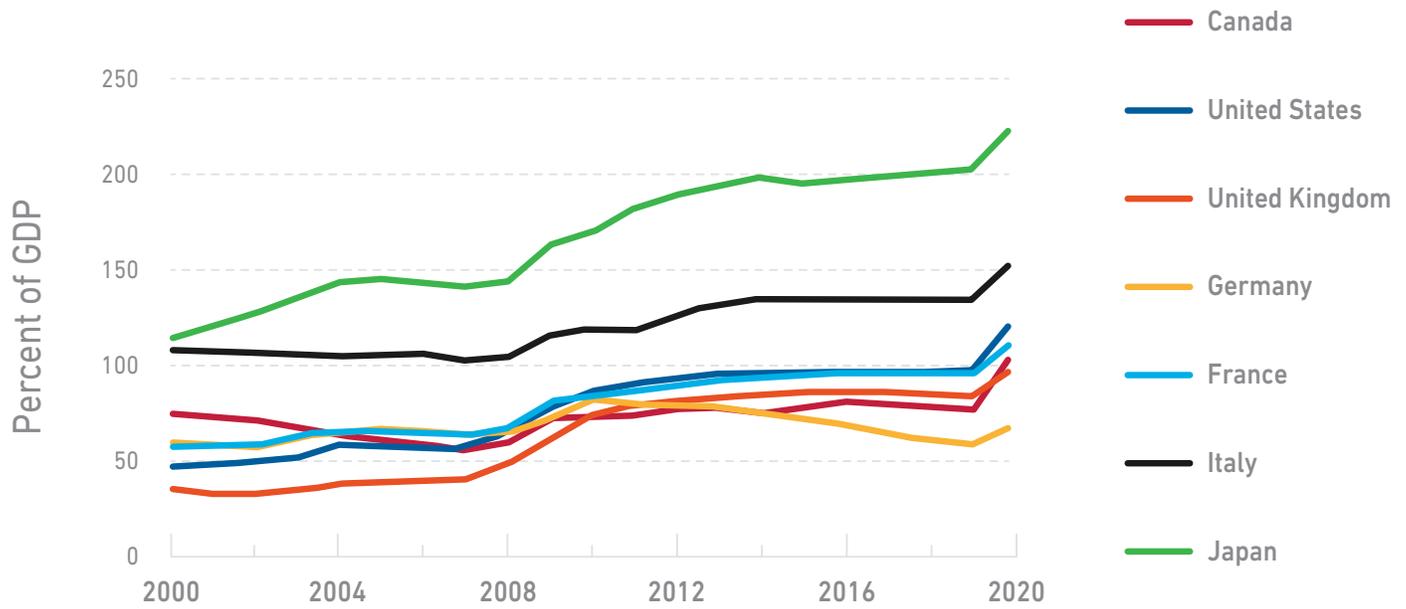
Figure 2-4



Sources: Bank of International Settlements, BIS Statistics Explorer, Credit to the non-financial sector, Credit to the private non-financial sector (core debt), total credit, accessed February 11, 2022.

Figure 2-5

Total debt, government sector, G7



Sources: Bank of International Settlements, BIS Statistics Explorer, Credit to the non-financial sector, Total credit to government sector (core debt), accessed February 11, 2022.

CONCLUSION & POLICY RECOMMENDATIONS

Unfortunately, interest rates are a very blunt tool for managing the economy. You can think of interest rate policy as a dull scalpel that a surgeon uses to remove an appendix. The surgeon may get the job done, but the patient will suffer ragged tissue cuts, greater blood loss, more likely infection, and scarring. While lowering interest rates have a short-term stimulative effect, maintaining low rates over a longer period may have the opposite effect, of redistributing income and inhibiting growth and productivity improvements.

Former Senior Deputy Governor Carolyn Wilkins acknowledged this, albeit in more formal, subtle language, in 2018: “Interest rates are a blunt tool, so using them to achieve financial stability could have suboptimal outcomes from the perspectives of both monetary policy and financial stability.”⁵⁶

Think of interest rate policy as a dull scalpel that a surgeon uses to remove an appendix. The surgeon may get the job done, but the patient will suffer.

There is no obvious short-term solution to correct the unintended consequences of long-term low interest rate policies. Simply raising interest rates is not a solution in itself. As former Vice Chair of the U.S. Federal Reserve Don Kohn recently stated, “the transition to a higher rate environment could be pretty bumpy given that a lot of asset values and assessments of debt sustainability are built on very low interest rates for very long.”⁵⁷ The current state of near zero interest rates and highly indebted public and private economic sectors is the result of approximately fifteen years of accommodative monetary policy. Any policies to correct the situation will also take years. Households, businesses, and governments have become much more indebted. Productivity growth has declined, as has wage growth. Policy responses will therefore need to come from both monetary and fiscal action.

With that in mind, here are six concrete policy recommendations:

1. **Slowly reduce the Bank’s influence on interest rates, allowing those rates to rise to a market-determined level.** In 2021, year-over-year September inflation was 4.8%, the highest since 1991.⁵⁸ The central bank’s 2% inflation target has been exceeded by a significant margin. The Bank of Canada stated that it expects this relatively high inflation rate to be “transitory,” but immediately went on to say that its magnitude is “uncertain” and warrants close monitoring.⁵⁹ Monetary policy can take up to two years before its full effects are felt in the economy.⁶⁰ Therefore, if this inflation is not transitory, continued ultra low interest rates and quantitative easing, along with planned government stimulus spending, could be the equivalent of air dropping gasoline on a forest fire.
2. **Show fiscal discipline, specifically by reducing the federal government’s debt-to-GDP ratio.** Cuts should primarily be made from discretionary consumption programs rather than capital and infrastructure projects. Going forward, federal spending should be more symmetrical, borrowing and producing surpluses in roughly equal proportion over a complete economic cycle.
3. **Pursue economic growth policies.** The previous recommendation to reduce the debt-to-GDP ratio targets (that is, reduces) debt, the ratio’s numerator. However, the ratio can also be reduced by *increasing* the denominator through productivity and growth initiatives. These recommendations are not monetary in nature. However, policies that improve growth and productivity enable the economy to escape the debt trap, and to alleviate distortions described earlier from the continuous low interest rates.
 - The federal government should carry out a major review and revision of the tax system. The last major tax review occurred in 1967.⁶¹ Given

56. Carolyn A. Wilkins, “Financial Stability: Taking Care of Unfinished Business,” Bank of Canada, March 22, 2018, p. 5.

57. Donald Kohn, “Building a More Stable Financial System: Unfinished Business,” Federal Reserve Bank of Kansas City symposium, September 13, 2021, p. 2.

58. Jordan Press, “Canada’s annual inflation rate highest since 1991,” CTV News, January 19, 2022.

59. Bank of Canada, “Bank of Canada maintains policy rate, continues forward guidance and current pace of quantitative easing,” Press release, September 8, 2021.

60. Bank of Canada, *op. cit.*, footnote 1.

61. Chartered Professional Accountants of Canada, “Canada needs a tax review,” 2021, p. 2.

all the small and large changes made since then, a Chartered Professional Accountants of Canada report has described the current tax system as “a bloated, complex and inefficient system that is holding Canada back.”⁶² The CPA report goes on to say that a better tax system will attract more foreign investment and more human capital, and improve both productivity and resource allocation.

- Canadian governments should reduce the regulatory burden. According to a Canadian Federation of Independent Business report, the cost of regulation to Canadian businesses totalled over \$38 billion in 2020, and the total time spent on regulatory compliance was the equivalent of nearly 375,000 full-time jobs.⁶³ There are opportunities to streamline regulatory processes, reduce overlap, and speed up decision-making, which will improve both our productivity and our competitiveness.

4. Lengthen the maturity term of government issued bonds. Given current ultra low interest rates (for example, federal government long-term bonds are yielding 2.20%),⁶⁴ the federal government should take advantage and finance its borrowing requirements by issuing more long-dated bonds. This will lock in the low interest costs and provide some stability when rates again start climbing.

5. Over the medium to longer term, make monetary policy more symmetrical. As former OECD and Bank of International Settlements economist William White writes, “Since the 1980s, monetary policy was always eased more in downturns than tightened in upturns. Same with fiscal. Thus, interest rates ratcheted down to zero and government debt levels have risen to record levels.”⁶⁵ Going forward, the Bank of Canada should ease and tighten monetary policy in approximately equal proportion.

6. Make sure regulations build resiliency rather than stability in the financial system. Frameworks and policies enabling the financial system to operate ef-

fectively in times of stress are referred to as macroprudential policies. Developing these policies is a complex task. While the topic is beyond this paper's scope, several guiding principles are worth noting. Macroprudential policies should aim to build resiliency rather than stability in our financial system, when it comes to things such as providing loans, payment services, and managing risk.⁶⁶ Maintaining stability suggests that the financial system does not change much in the face of economic cycles and stress events. Rather, macroprudential policies should allow the financial system to expand and contract based on economic signals, yet still be able to provide its key functions in times of significant stress. The degree of resiliency is also important. A highly resilient financial system is possible, but at the cost of innovation and economic growth. Whatever decision is made on the trade-off level between resiliency and growth should be based on input from financial sector regulators, the Bank of Canada, and Parliament.

The current state of near zero interest rates and highly indebted public and private economic sectors is the result of years of accommodative monetary policy.

62. *Ibid.*, p. 1.

63. Marvin Cruz et al., *Canada's Red Tape Report: The Cost of Regulation to Small Business*, Sixth Edition, Canadian Federation of Independent Business, 2021, p. 6.

64. Bank of Canada, Statistics, Interest Rates, Selected Bond Yields, consulted on February 11, 2022.

65. William White, “If Something Cannot Go On Forever, It Will Stop,” Presentation for the Canadian International Council and Konrad Adenauer Stiftung, July 26, 2021, p. 3.

66. Loretta J. Mester, “Comments on ‘Microprudential Versus Macroprudential Supervision: Functions That Make Sense Only as Part of an Overall Regime for Financial Stability,’ by Paul Tucker,” Federal Reserve Bank of Cleveland, October 2, 2015, pp. 5-6.



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