

# PRIMER ON GROSS DEBT/GDP RISK IN THE SHADOW OF COVID-19: Canada Joins Top Debtor Nations\*

MARCH 2021

**Author:** Lois Tullo, *Executive in Residence, Global Risk Institute*



The immediacy of the COVID-19 pandemic pressed governments globally to increase fiscal spending to levels not witnessed since WWII. In Canada, COVID-19 response programs increased Canada's gross debt/gross domestic product (GDP) ratio in 2020 to 114.64% (IMF 2020), an increase of 29% over 2019 (Figure 1).

As the gross debt/GDP ratio grows, Canada faces the risk of increased interest coverage payments leading to reduced future fiscal flexibility. An acknowledgement of this increased risk must be met with an understanding of a plan to build the economy and to pay down the deficit. This raises a number of issues that need to be debated to address the risks coming in the future. The interrelationship of COVID-19 and fiscal crisis/sovereign debt risk are illustrated in Appendix 1 – GRAFT Risk Matrix.

## THE CURRENT SITUATION

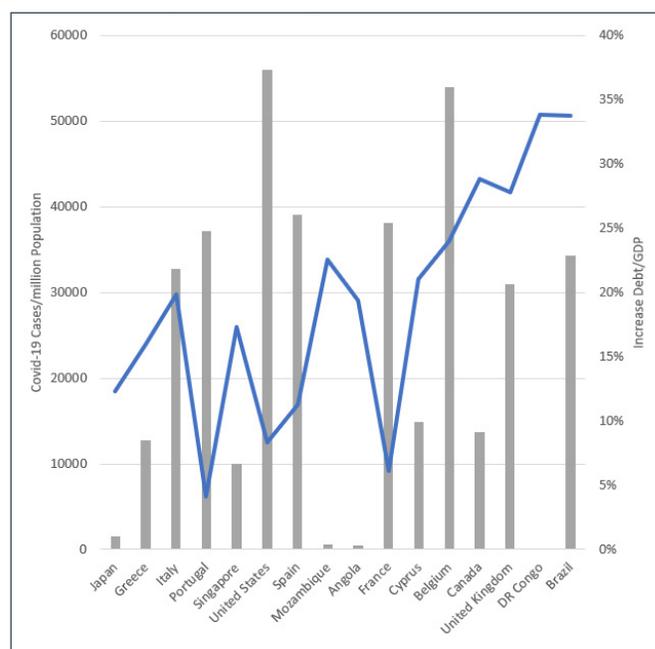
Central bank balance sheets have exploded, interest rates are at all time lows and gross debt/GDP have hit new highs (Appendix 2).

Debate on the effectiveness of fiscal spending to combat the COVID-19 pandemic continues. The data shows that Canada, when compared to other debtor nations, increased its debt/GDP spending in a greater proportion than its number of cases per million population (Figure 2).

**Figure 1: Canadian Gross Debt/GDP**



**Figure 2: Increase in Debt/GDP Versus Covid-19 Cases per Million**



\* Population greater than one million people with debt/GDP ≥ 100%

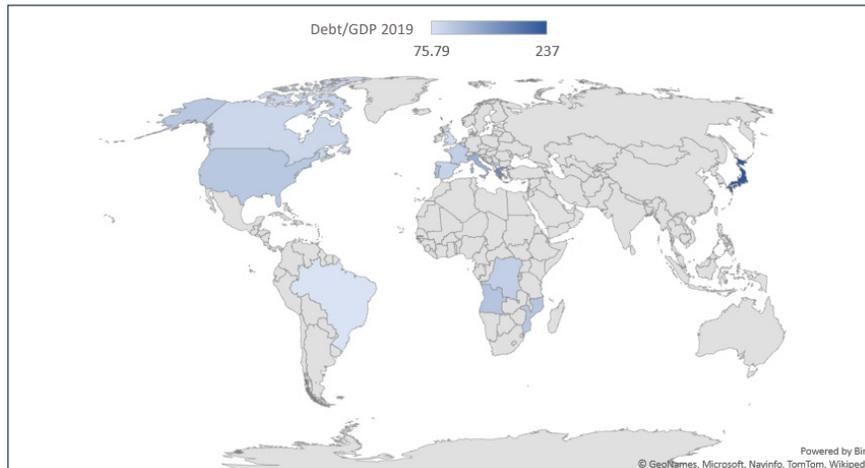
The debate for and against increased fiscal policy spending continues with diverging arguments:

1. that Canada’s cases are less due to the increased fiscal response that allowed Canadians to stay home during the shutdown, or
2. that fiscal spending overshoot the required intervention to effect case reductions.

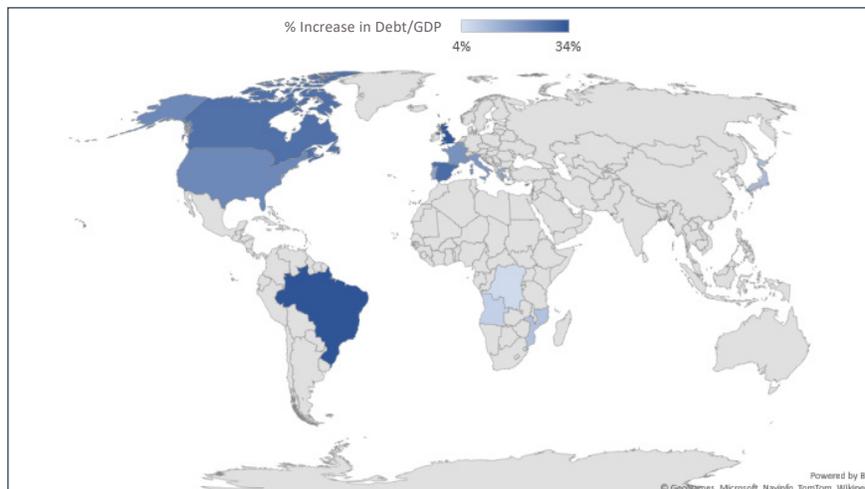
In either case, the resultant increase in Canada’s sovereign debt is now a risk to Canada’s ability to address the challenges that are on the horizon in 2021 and beyond.

The Institute of International Finance (IIF) predicts that global debt levels will reach \$277 trillion by the end of 2020, up from \$255 trillion at the end of 2019 (Campos, R., 2020). Based upon the International Monetary Fund (IMF) gross debt/GDP ratios, Canada joins the top 13 most indebted nations with a ratio of 114.64% (Figure 3). Canada’s gross debt/GDP increased by 29% following only the increase in debt levels in Brazil and the Democratic Republic of the Congo of 34%, while the United Kingdom follows Canada closely with an increase of 28% (Figure 4), (Appendix 2).

**Figure 3: National Debt/GDP Dec 2020**



**Figure 4: Increase in National Debt/GDP 2020**



## RESEARCH IMPLICATIONS OF GROSS DEBT/GDP LEVELS

Increases in gross debt/GDP, especially to a level greater than 90%, have historically been linked to marked deterioration in long-term fiscal sustainability and that often lingers on into the medium and longer term. This risk to long-term fiscal sustainability is supported by debtor nations' large fiscal deficits, high debt levels, an outlook of possibly subdued GDP growth, and the fiscal implications of an aging population which are considerable (Checherita-Westphal, C. & Rother, P. 2011).

**Empirical Evidence:** Three studies analysed the development of gross central government debt and real GDP growth rate: Reinhart and Rogoff (2010) 20 countries from (1790-2009); and Kumar and Woo (2010) 46 countries from (1970-2007); Checherita-Wesphal and Rother (2011) 12 countries from (1970-2011). They found that: (i) the relationship between government debt and long-term growth is weak for debt-to-GDP ratios below a threshold of 90% of GDP; (ii) above 90%, the median growth rate falls by one to 2.6% percent and the average by considerably more 4.2%.

## WHAT ARE THE IMPLICATIONS OF INCREASED GROSS DEBT/GDP RISK?

Canada is facing an aging population that is increasing the strain on health care and pension systems; reduced tax revenues due to the economic reduction caused by COVID-19, an aging population and reduced birth rates, as well as labour shortages in some areas. Large sovereign debts, i.e., sovereign debt/GDP > 90%, reduce the capital reserve to address the increased demands on health care and pensions, as seen in Ontario in the 90s. Increased debt may discourage capital accumulation and further reduce economic growth.

In the short term, there is low risk of interest rate movements that will increase debt interest payments. Bank of Canada has given clear forward guidance in relation to the overnight rate and their quantitative easing program

which will maintain the low-rate environment for the near future (Bank of Canada, 2021). However, this could be accentuated through higher long-term interest rates (doubling of interest rates through only an increase of 25 bps in the Bank of Canada rate), higher future taxation (increase in HST% to offset higher government spending which can be regressive if not off-set by tax credits to low-income individuals, or an increase to Canada's already globally-high personal income tax rate). Higher inflation has also been signaled by the 10-year breakeven rate rising to 2.21% – the difference in yields between the 10-year Treasury note and its inflation-protected counterparty (Stanton, Spratt, and Ainger, 2021). Inflationary and deflationary indicators such as 5% price increase on basic goods and services have already been recorded, while significant deflation on travel and tourism have been recorded, indicating greater uncertainty and macroeconomic volatility. If growth is indeed reduced, fiscal sustainability issues are likely to be exacerbated, with further adverse consequences (Kumar, M.S. and Woo, J., July 2010). In the medium- to long-term, fiscal anchors currently being called for by some sectors of the opposition government to increase taxes primarily on corporations and wealthy individuals, must also be balanced to not derail an economic recovery.

## ACKNOWLEDGEMENT OF THE INCREASED LEVEL OF RISK AND A PLAN TO MOVE FORWARD

Moving forward in a post-COVID-19 era will require policymakers and heads of business to acknowledge the increased risk of Canada's gross debt/GDP ratio by explicitly addressing the implications of this increase. The fiscal situation needs to be understood. The 2021 year cannot be another year of just spending. There needs to be spending in accordance with a plan to build the economy and with a plan to pay down the deficit. Timing of paying down the debt requires a delicate balance. Spending reductions while increasing the tax base should be planned in step with the recovery. In the mid-nineties, Canada reduced its debt/GDP ratio through significant cuts in social transfer payments which led to a reduction in hospital and long-term care beds. The plan to reduce Canada's debt/GDP ratio in the future must take into consideration the implications that those cuts cost in Canada's ability to care for seniors affected by COVID-19.

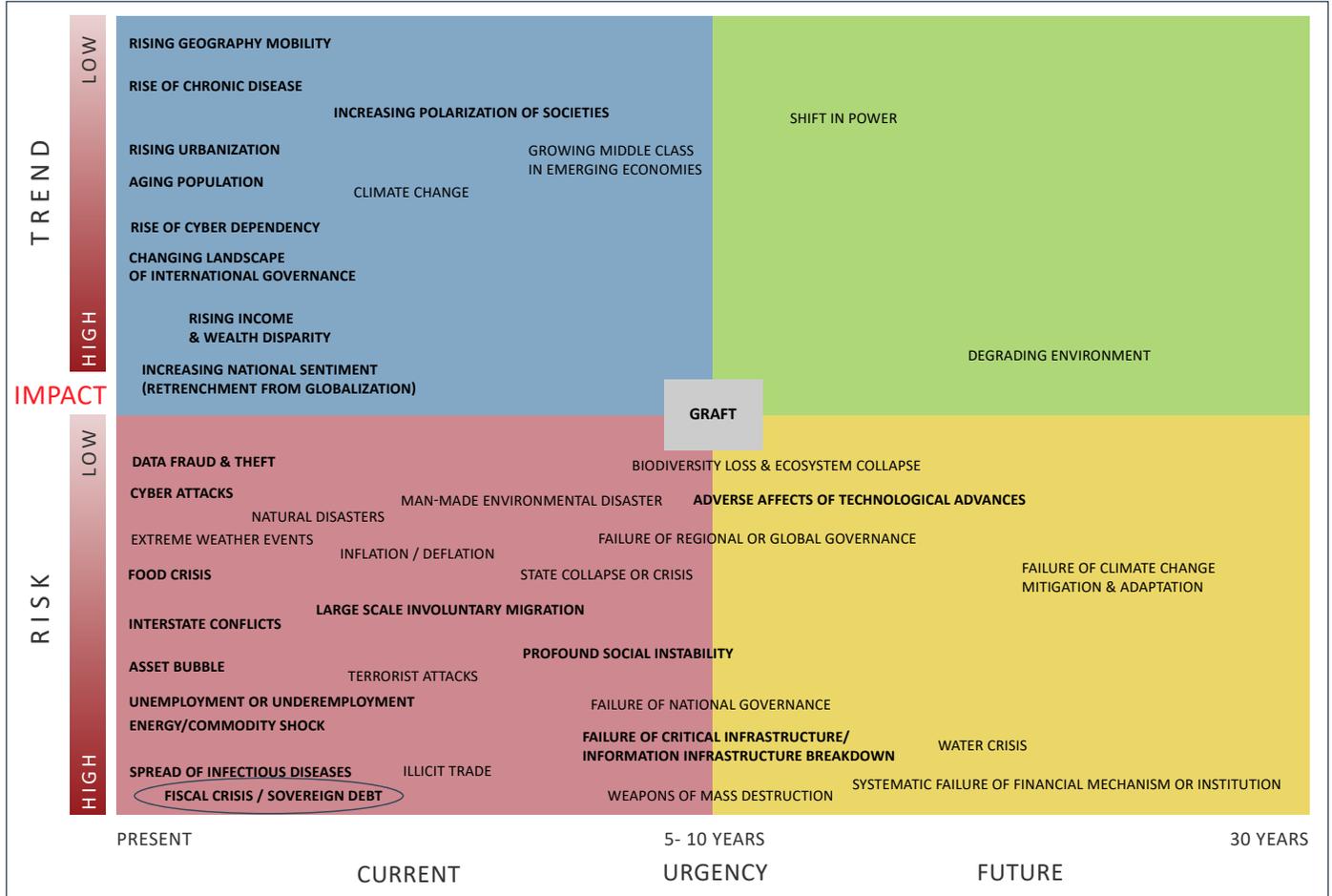
Further issues need to be debated, including the growing importance of policies to address the increase in Canada's aging population by extending the working life of employees through continuous training; increasing access to immigration for young families; lightening the burden of young families through increased access to affordable housing and childcare; and a continued focus on reducing Canada's debt/GDP ratio to ensure future fiscal sustainability. At the same time, keeping an eye on risk events may push interest rates to levels that hinder debt serviceability.

---

© 2021 Global Risk Institute in Financial Services (GRI). This "Primer on Gross Debt/GDP Risk in the Shadow of COVID-19: Canada joins Top Debtor Nations" is a publication of GRI and is available at [www.globalriskinstitute.org](http://www.globalriskinstitute.org). Permission is hereby granted to reprint the "Primer on Gross Debt/GDP Risk in the Shadow of COVID-19: Canada joins Top Debtor Nations" on the following conditions: the content is not altered or edited in any way and proper attribution of the author(s) and GRI is displayed in any reproduction. **All other rights reserved.**

APPENDIX 1: GLOBAL RISKS AND TREND FRAMEWORK (GRAFT) MATRIX:

COVID-19 and Fiscal Crisis/Sovereign Debt Risk



**APPENDIX 2: BALANCE SHEETS AND INTEREST RATES FOR: BANK OF CANADA, U.S. FEDERAL RESERVE, EUROPEAN CENTRAL BANK**

Canadian Bank of Canada Reserves February 2021 (000,000)  
(Trading Economics, 2021)



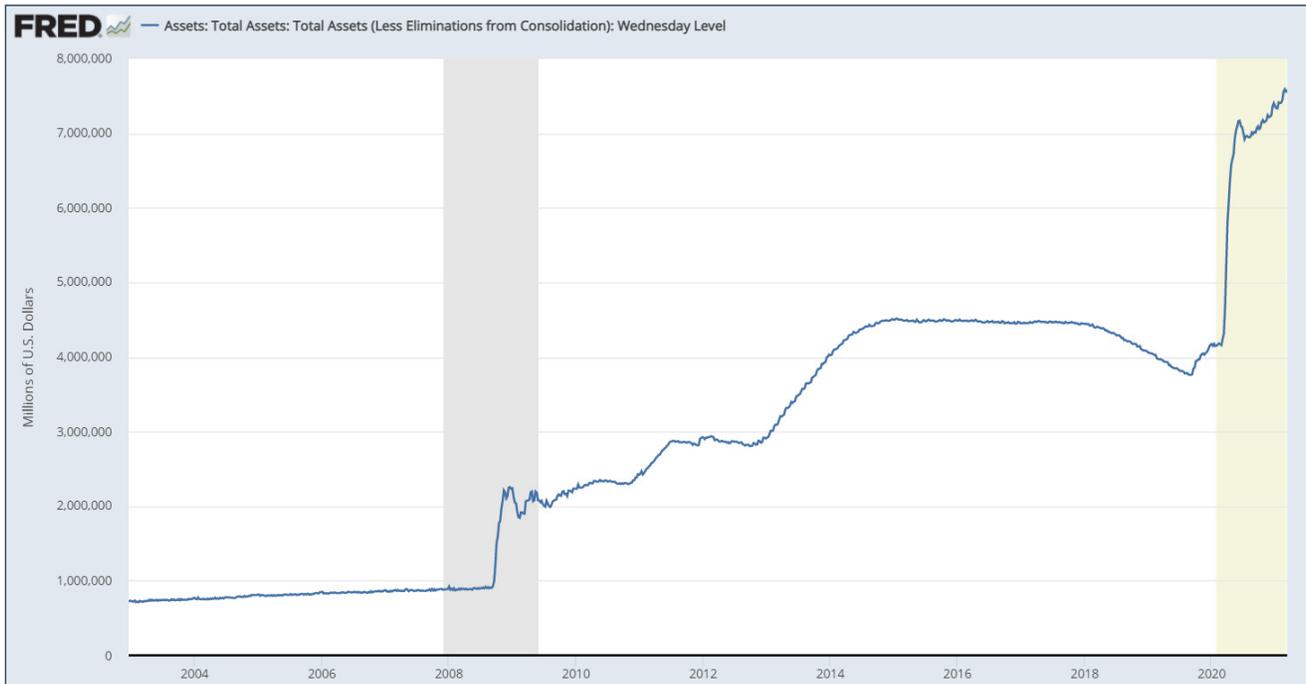
Source: [TradingEconomics.com](https://tradingeconomics.com) Bank of Canada

Bank of Canada Overnight Interest Rate, February 2021  
(Trading Economics, 2021)



Source: [TradingEconomics.com](https://tradingeconomics.com) Bank of Canada

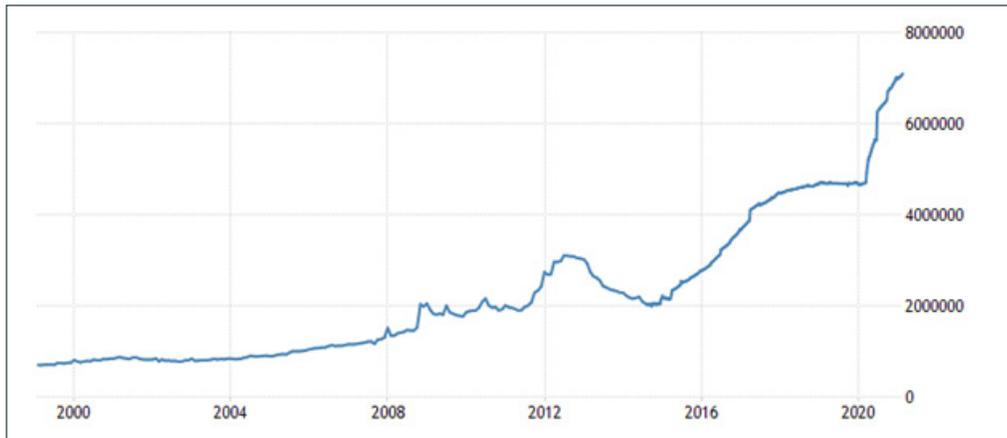
**U.S. Federal Reserve Assets Top \$7 Trillion, (FRED, 2021)**



**U.S. Fed Overnight Interest Rate, (FRED, 2021)**

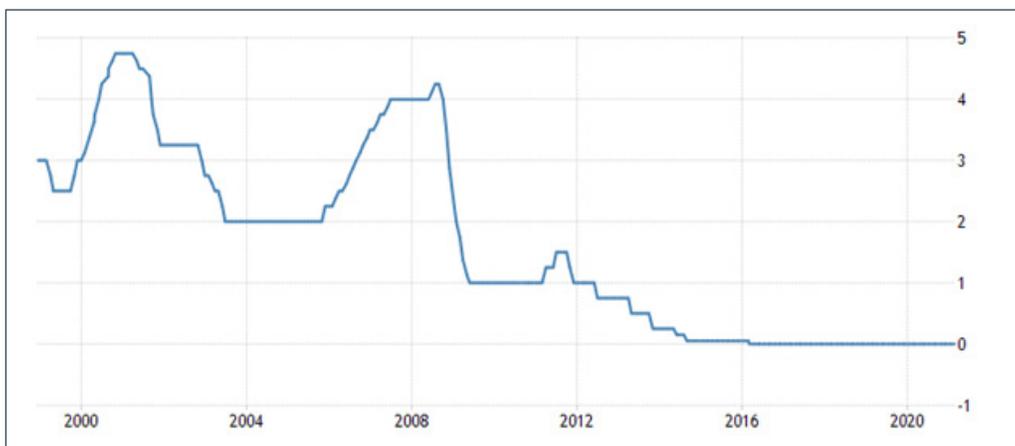


ECB Balance Sheet, February 2021, (Trading Economics, 2021)



Source: [TradingEconomics.com](https://tradingeconomics.com/european-central-bank/balance-sheet) European Central Bank

ECB Overnight Interest Rate, February 2021, (Trade Economics, 2021)



Source: [TradingEconomics.com](https://tradingeconomics.com/european-central-bank/overnight-interest-rate) European Central Bank

**Table 1:** Country Debt/GDP 2019, Country Million Population, November 2020 (IMF 2020)

2019 Country	Debt/GDP	Population 2020
Japan	237	126476.5
Greece	177	10423.1
Lebanon	151	6825.4
Italy	135	60461.8
Singapore	126	5850.3
Cape Verde	125	556
Portugal	117	10196.7
Angola	111	32866.3
Mozambique	109	31255.4
United States	107	331002.7
Djibouti	104	988
Jamaica	103	2961.2
Belgium	98.6	11589.6
DR Congo	98.5	89561.4
France	98.1	65273.5
Cyprus	95.5	1207.4
Spain	95.5	46754.8
Bahrain	93.4	1701.6
Jordan	92.4	10203.1
Canada	88.6	37742.2

**Table 2:** Table of Country Debt/GDP, COVID Case per Thousand, and per Million Population, November 2020 (IMF 2020)

Country	Debt/GDP	Increase in Debt/GDP	COVID Cases /000	COVID Cases / Million Pop
Japan	266.2	12%	201	1589
Greece	205.3	16%	132	12735
Italy	161.9	20%	1977	32727
Portugal	137.2	4%	378	37187
Singapore	131.2	17%	58	9956
United States	131.2	8%	18,598	56034
Spain	123	11%	1830	39136
Mozambique	121.3	23%	1.7	561
Angola	120.3	19%	16.8	504
France	118.7	6%	2490	38112
Cyprus	118.4	21%	18	14861
Belgium	117.7	24%	627	53981
Canada	114.6	29%	519	13713
UK	108	28%	2110	31009
DR Congo	104.5	34%	15.6	173
Brazil	101.4	34%	7318	34316

## ENDNOTES

1. Bank of Canada, January 20, 2021, Bank of Canada will hold current level of policy rate until inflation objective is achieved, continues quantitative easing, <https://www.bankofcanada.ca/2021/01/fad-press-release-2021-01-20/>, last accessed March 4, 2021
2. Campos, R. November 18, 2020, Reuters, Global debt to hit record \$277 trillion by year end on pandemic spending splurge, <https://www.reuters.com/article/us-global-debt-idUSKBN27Y239>, last accessed March 2, 2021
3. Checherita-Westphal, C. & Rother, P. (2011). The Impact of Government Debt on Growth: An Empirical Investigation for the Euro Area. *Revue économique*, vol. 62(6), 1015-1029. <https://doi.org/10.3917/reco.626.1015>, last accessed March 2, 2021
4. Federal Reserve Bank of St. Louis, US Fed Overnight Interest Rate, Economic Research, <https://fred.stlouisfed.org/series/FEDFUNDS#0>, last accessed March 2, 2021
5. Federal Reserve Bank of St. Louis, US Federal Reserve assets, Economic Research, <https://fred.stlouisfed.org/series/WALCL>, last accessed March 2, 2021
6. IMF 2020, Gross debt position % of GDP, [https://www.imf.org/external/datamapper/G\\_XWDG\\_G01\\_GDP\\_PT@FM/ADVEC/FM\\_EMG/FM\\_LIDC](https://www.imf.org/external/datamapper/G_XWDG_G01_GDP_PT@FM/ADVEC/FM_EMG/FM_LIDC), last accessed March 2, 2021
7. Kumar, M.S. and Woo, J. (July 2010), Public Debt and Growth, Fiscal Affairs Department, IMF Working Paper WP/10/174
8. Stanton, S., Spratt, S., and Ainger, J., Global Markets See Inflation Breaking Out to Multiyear Highs, Bloomberg online, February 7, 2021, <https://www.bloomberg.com/news/articles/2021-02-08/u-s-10-year-inflation-breakeven-advances-to-highest-since-2014> last accessed March 2, 2021
9. Trading Economics, Canada Central Bank Balance Sheet, Data 1959- 2021 <https://tradingeconomics.com/canada/central-bank-balance-sheet>, last accessed March 2, 2021
10. Trading Economics, Bank of Canada Overnight Interest Rate, February, 2021 <https://tradingeconomics.com/canada/interest-rate>, last accessed March 2, 2021
11. Trading Economics, ECB Balance Sheet, February 2021, <https://tradingeconomics.com/euro-area/central-bank-balance-sheet>, last accessed March 2, 2021
12. Trading Economics, ECB Overnight Interest Rate, February 2021, <https://tradingeconomics.com/euro-area/interest-rate>, last accessed March 2, 2021