



# Canadian Monetary Policy and Chinese Monetary Policy Under Covid-19

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**Abstract.** The comparison between Chinese monetary policy and Canadian monetary policy regarding Covid-19 could intuitively display the socioeconomic differences and similarities between western countries and eastern countries. China and Canada were two typically eastern representative countries and western representative countries socioeconomically and politically. The People's Bank of China (PBC) was the central bank of the People's Republic of China which was under the regulation of the State Council. The Bank of Canada (BOC) was the central bank of Canada under the administration of the Governing Council. From 2019 to 2022, the central bank of China conducted structural monetary policy and tools by refinancing, reserve requirement policy and open market operation to mitigate the impact of the pandemic on the Chinese economy. The Bank of Canada applied both conventional and unconventional monetary policy to the Canadian economy by adjusting the target for the overnight interest rate to control the target the inflation rate. For the sake of understanding the response of the monetary policy by the People's Bank of China and the Bank of Canada, statistics and graphs were employed in this paper to interpret the operation of these monetary policies and monetary instruments. The monetary policy's reaction of China was more restrained than Canada under the pandemic.

**Keywords:** Covid-19 · monetary policy · Bank of Canada · People's Bank of China

## 1 Introduction

The outbreak of Covid-19 caused tremendous disruptions in transportation, health, demand and supply chain for goods and services (especially for food and medication), social activities, at the same time, affected global economies. This paper would focus on observing the modification of monetary policy of China and Canada under the pandemic by the analysis of variation in GDP, exchange rate, and inflation among these two countries. Besides, the primary objective of the central bank for Canada and China affected the process of making monetary policy decisions based on national conditions. According to the Amendment of the People's Republic of China for People's Bank of China (2018), "the objective of Chinese Monetary Policy is to maintain the stability of the value of a currency to promote economic growth" [1]. The objective of the Canadian

Monetary Policy is to maintain stable and low inflation to preserve the value of currency [2]. Thus, this paper summarized the overall adjustments of monetary policy for western countries and eastern countries facing extreme cases by providing a special example for international study and economic study. What was noteworthy was that national demands and a range of social changes affect the decision-making process of monetary policy. Concisely, this paper intended to concentrate on pandemic's impact on the economy, for this reason, which might lead to misleading the public about the operation of monetary policy across countries under normal situations. In addition, researchers might unconsciously collected and presented missing data or misrepresented data. As a result, certain analysis derived from these publicly available statistics might possibly misguide the real purpose and performance of monetary policy to readers.

## 2 Discussion

### 2.1 Background of Epidemic Outbreaks

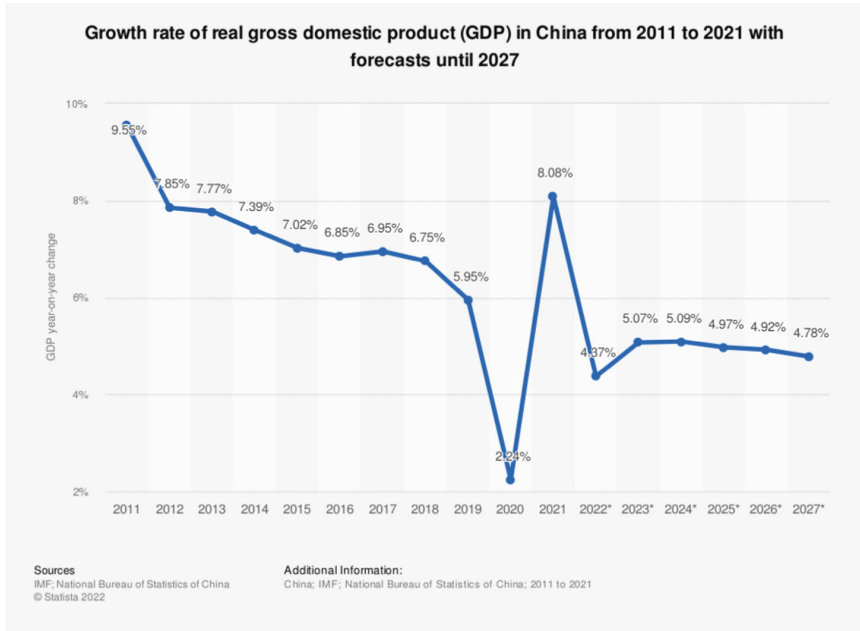
For a better understanding of the reaction of China's monetary policy and Canada's monetary policy regarding covid-19, it was critical to know the epidemic prevention policy and time lag of coronavirus outbreaks between these two countries. Senécal et al. (2020) expressed that the first officially reported covid-19 case in China was on 31 December 2019, and the first laboratory-confirmed covid-19 case in Canada appeared on January 25th, 2020 [3].

### 2.2 Monetary Policy Response in China

China stuck to a zero-covid policy, travelling restrictions, covid testing, large-scale quarantine and lockdowns inevitably deaccelerating in economic recovery. To Fig. 1, the growth rate of gross domestic product (GDP) for China slumped to 2.24% in 2020, jumped to 8.08% in 2021 and plummeted to 4.37% in 2022 [4]. Noting that the growth rate of GDP in China did not return to the pre-pandemic level and staying around 4% to 5% after 2022 until 2027 based on the forecasting graph.

For the sake of preserving the value of the Renminbi and stimulating economic development, the central bank of China revised its monetary policy and tools to control the money supply and interest rate. Three economic scholars from Wuhan University, Xiping Zhang, Yimeng Zhang and Yunchan Zhu (2021) claimed that the People's Bank of China carried out a conventional monetary policy such as reducing deposit reserve rate, strengthening structural monetary policy and structural monetary instruments compared to other countries imposing unconventional monetary policy in response to covid-19 [5]. PBC pursued counter-cyclical adjustments in monetary policy in 2020 to keep moderate aggregate policy with the assistance of structural monetary policy instruments, via balancing the relationship between credit expansion and economic recovery and appropriate reducing financing costs [6].

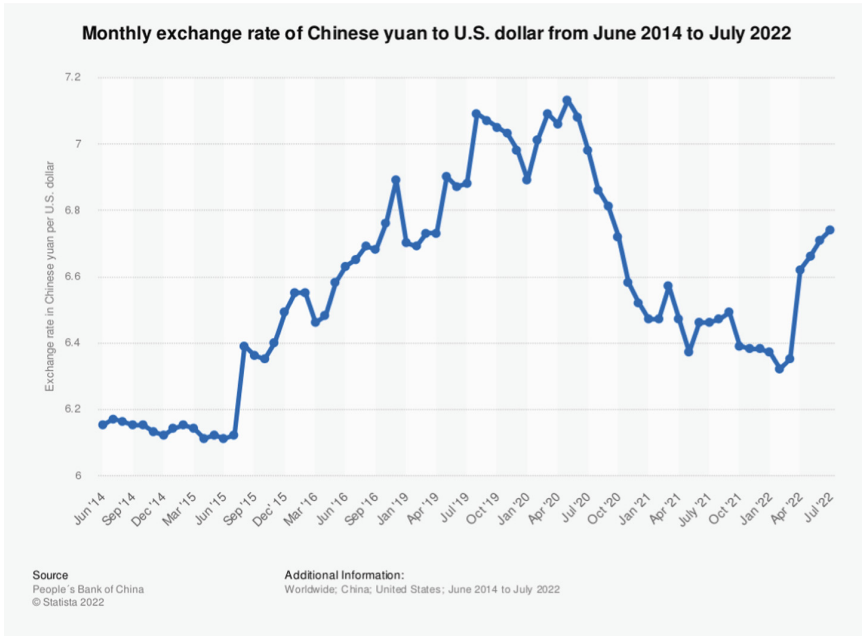
The objective of China's monetary policy in 2021 was to retain abundant liquidity in the banking system. In order to actualize this goal, the People's Bank of China (2021) performed reverse repo measures by interest rate bidding, and PBC also utilized the



**Fig. 1.** China's GDP growth rate from 2011 to 2021. Note. The growth rate of GDP in China was fluctuated under the pandemic period.

exchange of central bank bills by CBS for 12- month to improve the market liquidity for bank sustainable bonds, medium-term lending facility (MLF) and standing lending facility (SLF) to regulate middle and short-term liquidity, reducing financial institution's deposit reserve ratio twice in 2021 and increasing foreign currency's reserve requirement ratio to strengthen the liquidity management for financial institution's exchange [7]. In the Executive Report of Chinese Monetary Policy on 10 August 2022, PBC continued its conservative and flexible monetary policy through keeping abundant liquidity injection by adjusting loan facilities and earmarked policy measures targeted at small and medium-sized enterprises, reinforcing tools of structural monetary policy, steady promoting reductions in the overall financing costs for enterprises, improving the elasticity of Chinese Currency's exchange rate, and limiting the financial risk [8]. The central bank of the People's Republic of China as a department of the State Council, when PBC implemented monetary policy that PBC always needed to obey Xi Jinping's novel socialist theory with Chinese characteristics, following the decision and guidance of the central government and the State Council. Thus, PBOC had little independence in the implementation of monetary policy.

Remembering that the main objective of China's monetary policy was to maintain the stability of the value of its official currency, the value of RMB was stable and the elasticity of Chinese yuan's exchange rate was strong even under covid-19. The exchange rate of yuan to U.S. dollar was at a reasonable fluctuation range of 6% to 7% in the past two years in Fig. 2 [9]. Overall, the RMB appreciated slightly by about 0.54% during

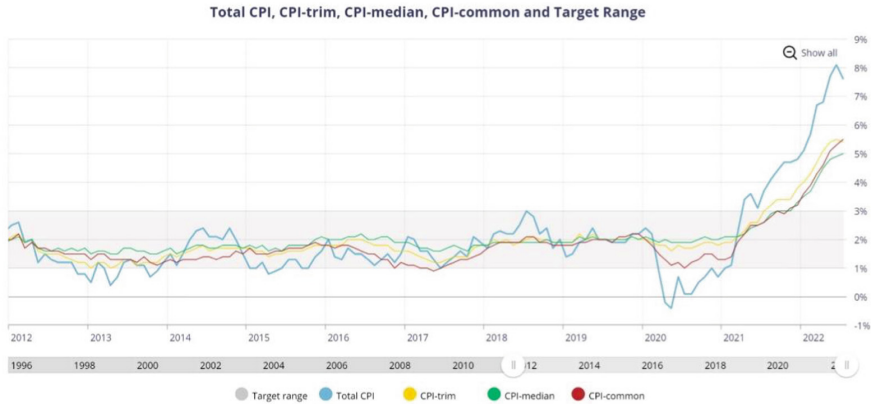


**Fig. 2.** Monthly exchange rate of Chinese currency to U.S. dollar from 2014 to 2022. Note. The general fluctuation of China's exchange rate moved in "N" shape from the beginning of 2020 to now.

the two-way fluctuation from December 2019 to February 2022, following by an order of depreciation first and appreciation later.

### 2.3 Monetary Policy Reaction in Canada

Moving back to the western selective country – Canada, the government of Canada also developed similar but less strict infection prevention and control guidance compared to China's Zero-Covid policy. A series of industries in Canada suffered heavily from the pandemic. Concerning excess demand, price pressure, supply shortage and labor shortage in Canada, BOC adjusted its monetary policy to achieve the primary objective depending on the epidemic situation and economic condition. The Bank of Canada, which was run by the Board of Directors, had considerable political independence than the People's Bank of China, which indicated that less government intervention was involved in the decision-making process of monetary policy in Canada. The main monetary instrument of the BOC was controlling the target for the overnight interest rate to regulate the inflation rate at the targeting range 1–3%, in the interest of sustaining economic stability and complementing government policies. Apparently, in Fig. 3, Canada experienced deflation from April 2020 at -0.2% to May 2020 at -0.4%, and the inflation was out of the target range from March 2020 to December 2020 and from April 2021 until now [10]. BOC used core inflation measures and the total CPI inflation trend to modify its monetary policy. While the rest of the world struggled with soaring inflation

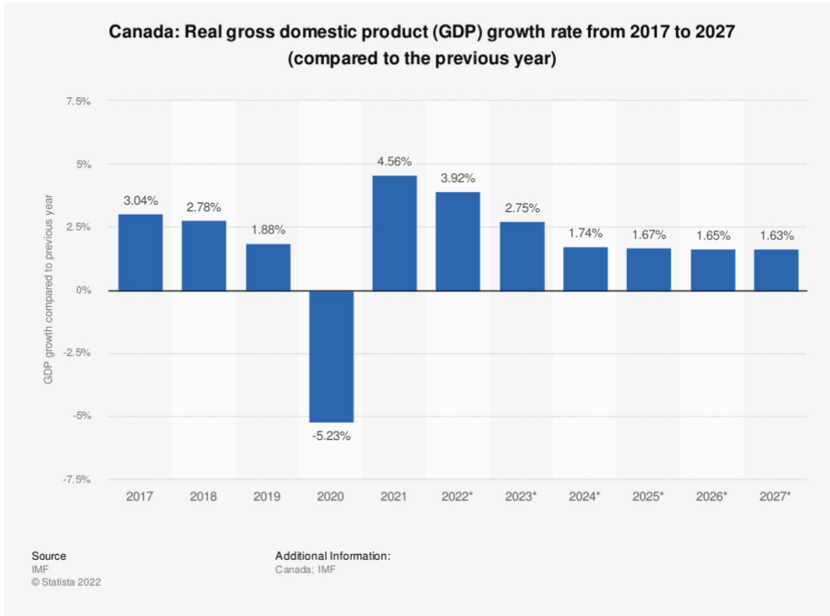


**Fig. 3.** Key Inflation Indicators and the Target Range [10]. Note. This paper focused on the variation of inflation from 2020 to 2020 for Canada.

like Canada, China remained a relatively low inflation rate due to price controls and government intervention.

Other than considering the movement of inflation, the growth rate of gross domestic product slowed down, especially in 2020. Clearly shown in Fig. 4, the GDP growth rate was -5.23% in 2020 due to the epidemic shock on aggregate demand and aggregate output [11]. The outburst of covid-19, mass layoffs and lockdowns forced the central bank to regulate monetary policy swiftly.

Regarding low inflation in March 2020 and economic slack in Canada, BOC gradually decreased the target for the overnight interest rate to 0.25% from March 2020 to March 2022, through expansionary monetary policy to support the recovery of the economy and to bring inflation back to 2%. From 27 March 2020 to 2 March 2022, the central bank of Canada maintained the target of overnight interest rate at the effective lower bound of 0.25% while administrated unconventional monetary policies such as quantitative easing programs (large-scale bond-buying programs) to lower borrowing costs and extraordinary forward guidance for the overnight interest rate during the pandemic as clearly displaying in the Canadian monetary policy report 2021 [12]. With the adaptation to virus, improvement of vaccine, stores reopening, and supplement of monetary policy, Canada's aggregate output and unemployment rate obviously enhanced from 2020 to 2022. While the economy became more resilient, the inflation rate grew above the central bank's objective target range and surged to 8% in July 2022 by virtue of several factors such as supply chain disruptions, high energy prices, a war in Ukraine and excess demand. Normally central bank raised the interest rates to slow inflation and demand which BOC took away purchasing powers from consumers. In a response to high inflation, BOC increased its target for the overnight interest rate to 2.5% on July 2022 until now, and BOC conducted a quantitative tightening program (QT) on 25 April 2022 to minimize size of balance sheet to further increase policy rate and stabilizing domestic price [13]. In general, Canada altered its monetary policy along with the variation of inflation by means of the low policy rate to spur employment rate and ameliorate economic recession, high policy rate to fight for steep inflation and continual rising price.



**Fig. 4.** Canada: Real gross domestic product (GDP) growth rate from 2017 to 2027. Note. Observing Canada's GDP growth rate from 2019 to 2022, the growth rate of GDP recovered to pre-pandemic level in 2021.

### 3 Conclusion

China insisted on restrictive monetary policy to stabilize prices and sustaining moderate liquidity in the banking system, while the central bank of Canada conducted unconventional monetary policies such as quantitative easy and quantitative tightening programs accompanied by low policy rate in the beginning of epidemic outbreak and then high policy rate to slow down inflation and excess demand. Choosing different types of reference data from publicly available database with respect to the monetary policy might provide another interpretation toward the monetary policy's reaction to covid-19. In addition, the central bank of China had less political independence than the Bank of Canada, in this case, examining the variance and emphasis of monetary policy between Canada and China requires the comprehension of China's political system.

### References

1. The Amendment of the People's Republic of China for People's Bank of China (2018). The People's Bank of China. <http://www.pbc.gov.cn/en/3688229/3688299/3688302/index.html>
2. Bank of Canada. (n.d.). About us. <https://www.bankofcanada.ca/about/>
3. Senécal, M. X., et al. (2020). Diagnosis and Management of First Case of COVID-19 in Canada: Lessons Applied From SARS-CoV-1. Volume 71, P. 2207-2210. Clinical Infectious Diseases. <https://doi.org/10.1093/cid/ciaa227>

4. IMF. (2022). Growth rate of real gross domestic product (GDP) in China from 2011 to 2021 with forecasts until 2027. [Graph]. National Bureau of Statistics of China. <https://www.imf.org/en/Publications/WEO/weo-database/2022/April>
5. Zhang, X., Zhang, Y., & Zhu, Y. (2021). COVID-19 Pandemic, Sustainability of Macroeconomy, and Choice of Monetary Policy Targets: A NK-DSGE Analysis Based on China. *Sustainability*, 13(6):3362. <https://doi.org/10.3390/su13063362>
6. Monetary Policy Analysis Group of the People's Bank of China. (2020). The Executive Report of China's Monetary Policy in the Fourth Quarter 2020. Volume 65. <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4190887/2021020821282167078.pdf>
7. Monetary Policy Analysis Group of the People's Bank of China (2021). The Executive Report of China's Monetary Policy in the Fourth Quarter 2021. Volume 66. <https://www.gov.cn/xinwen/2022/02/14/5673404/files/0889ac6e21d74f63b6e743bb04ed38dc.pdf>
8. Monetary Policy Analysis Group of the People's Bank of China (2022). The Executive Report of China's Monetary Policy in the Second Quarter 2022. Volume 60. <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4628805/2022081017111445870.pdf>
9. People's Bank of China. (2022). Monthly exchange rate of Chinese yuan to U.S. dollar from June 2014 to July 2022. [Graph]. <http://www.pbc.gov.cn/diaochatongjisi/resource/cms/2022/08/2022081516041032191.htm>
10. Bank of Canada. (n.d.). Key Inflation Indicators and the Target Range. [Graph]. <https://www.bankofcanada.ca/rates/indicators/key-variables/key-inflation-indicators-and-the-target-range/>
11. International Monetary Fund. (2022). Canada: Real gross domestic product (GDP) growth rate from 2017 to 2027. [Graph]. Statista. <https://www.imf.org/en/Publications/WEO/weo-database/2022/April>
12. Bank of Canada. (2021). Monetary Policy Report in October 2021. Volume 33. <https://www.bankofcanada.ca/wp-content/uploads/2021/10/mpr-2021-10-27.pdf>
13. Bank of Canada. (2022). Monetary Policy Report in July 2022. Volume 33. <https://www.bankofcanada.ca/wp-content/uploads/2022/07/mpr-2022-07-13.pdf>

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