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Canada: Government Bond Purchase Program¹

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Yale Program on Financial Stability Case Study
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Abstract

In Canada, the shock of the COVID-19 crisis drove up bid-ask spreads on Government of Canada (GoC) bonds. The Bank of Canada (BoC) announced the Government Bond Purchase Program (GBPP) to support the functioning of its government bond market, support other market liquidity tools, and replace the BoC's long-standing fiscal agent activities. The GBPP conducted multi-rate reverse auctions with primary dealers to purchase GoC bonds in the secondary market. The GBPP purchased bonds across the yield curve but concentrated on two- and five-year tenors. In June 2020, with CAD 64.7 billion (USD 48 billion) outstanding, the BoC announced that the program's purpose had shifted to quantitative easing (QE). The GBPP continued well after the GoC market calmed and, in October 2021, the BoC ended QE, leaving the program to conduct regular liquidity management.

Keywords: Canada, COVID-19 pandemic, GBPP, GoC bonds, market liquidity, QE

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Overview

The spread of COVID-19, and public health measures designed to contain it, caused stress in Canada's financial markets. In response, the Bank of Canada (BoC) intervened to contain and ease stress in several markets (see Runkel 2021). On March 12, the BoC expanded its repurchases—termed *buybacks*—of GoC securities that the BoC had long conducted as the government's fiscal agent (BoC 2012). However, bid-ask spreads on GoC securities remained high. Insurers sold government bonds in large quantities to rebalance their portfolios, driving bid-ask spreads on GoC bonds higher (Bédard-Pagé et al. 2021, 11). Moreover, the BoC noticed yields rising in government-guaranteed markets, a sign of liquidity strains rather than asset quality concerns. The BoC worried that liquidity strains could affect the efficacy of its and the GoC's other measures to generate credit for households and businesses (Poloz and Wilkins 2020).

On March 27, the BoC announced it would increase GoC bond purchases further by launching the Government Bond Purchase Program (GBPP). The GBPP conducted reverse auctions with authorized government securities distributors, mostly primary dealers, to purchase GoC bonds in the secondary market. Distributors could submit up to five bids for themselves and five on behalf of their customers. The auctions were multi-rate, meaning that the BoC satisfied bids offering the lowest prices first, until the allotment was exhausted. At the start of its operations, the GBPP allotted about

Key Terms

Purpose: “to address strains in the Government of Canada bond market, and to enhance the effectiveness of other actions taken to support core funding markets. More recently, as market conditions improved, the focus of the GBPP has shifted to supporting the resumption of growth in output and employment” (BoC 2020a)

Launch Dates	Announced: March 27, 2020
Operational Date	April 1, 2020
End Date	Changed to quantitative easing in June 2020
Legal Authority	Bank of Canada Act, 18(c)
Source(s) of Funding	Bank of Canada balance sheet
Administrators	Bank of Canada
Overall Size	No fixed ceiling
Purchased Assets	Secondary-market Government of Canada bonds of all tenors
Peak Utilization	CAD 64.7 billion on June 22, 2021

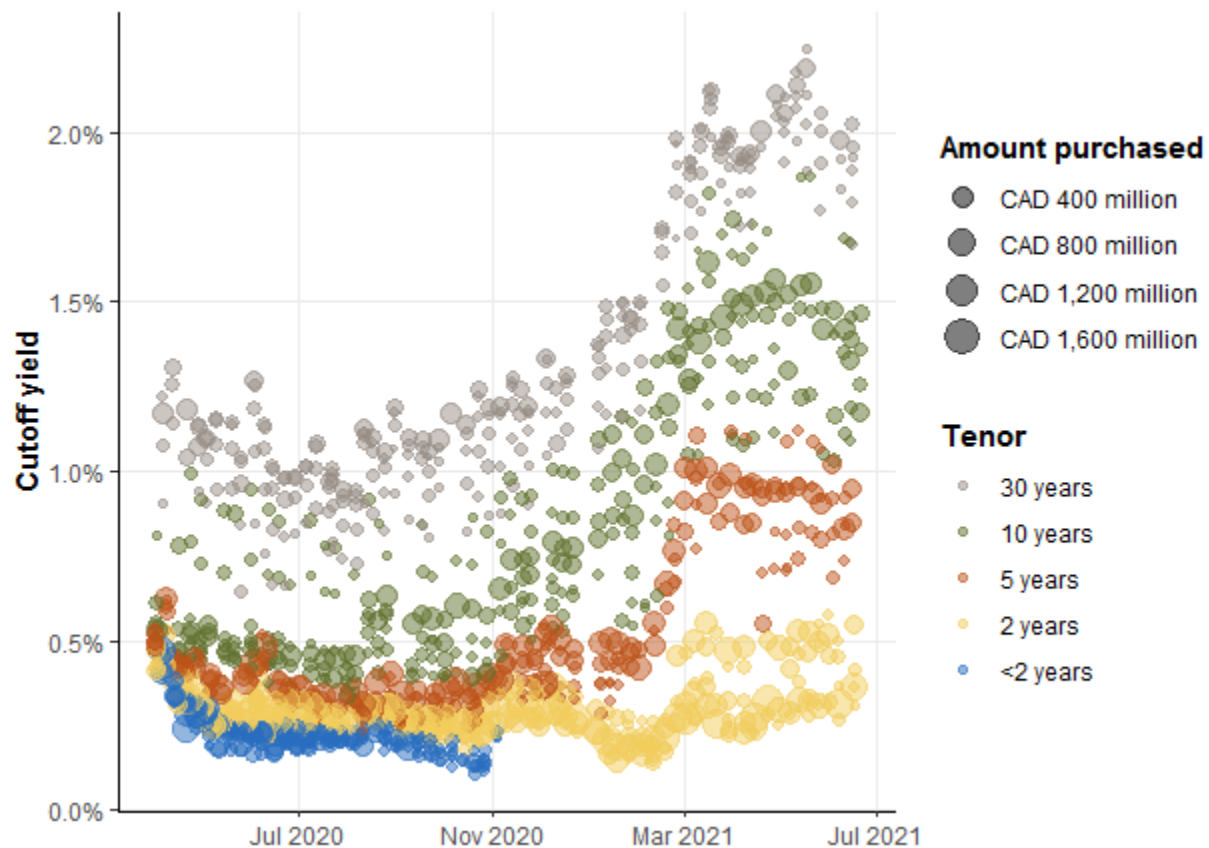
CAD 5 billion (USD 3.7 billion)³ weekly, which it funded by creating reserves in the accounts of securities distributors (BoC 2020b; BoC 2020d).

The GBPP's mandate shifted after the panic in March calmed. On June 22, 2020, the BoC governor labeled the GBPP as

³ USD 1 = CAD 1.40 during March 2020.

quantitative easing (QE) (Macklem 2020). The program had CAD 64.7 billion outstanding, mostly in two-, five- and 10-year tenors, as shown in Figure 1 (BoC 2020–2021). The GBPP continued until October 2021, when the BoC ended QE, leaving the GBPP only as a replacement for its older cash-management operations.

Figure 1: Securities Purchased by the GBPP



Source: BoC 2020–2021.

Summary Evaluation

The bid-ask spreads on GoC securities had begun falling the week before the GBPP was announced and continued to fall after (Bédard-Pagé et al. 2021, 11). BoC staff research finds that the announcement of the GBPP decreased GoC bond yields by an average of 10 basis points (bps), most of which the BoC attributed to signaling. As shown in Figure 2, Arora et al. (2021) estimate the effect at about 15 bps for securities with remaining maturities of two or fewer years, less than 10 bps for securities with remaining maturities of more than six years, and negligible for bonds with more than 20 years remaining. As for the effect of continuing purchases on yields, BoC staff estimate small effects—less than 1 bp—for most maturities. Moreover, the study finds that this effect faded after several days. The study does not consider whether the program impacted bid-ask spreads or the depth of the GoC market.

Context: Canada 2019–2020	
GDP (SAAR, nominal GDP in LCU converted to USD)	\$1,778.4 billion in 2019 \$1,777.1 billion in 2020
GDP per capita (SAAR, nominal GDP in LCU converted to USD)	\$46,327 in 2019 \$43,258 in 2020
Sovereign credit rating (five-year senior debt)	Data for 2019: Moody's: Aaa S&P: AAA Fitch: AAA Data for 2020: Moody's: Aaa S&P: AAA Fitch: AA+
Size of banking system	Data not available for 2019 Data not available for 2020
Size of banking system as a percentage of GDP	Data not available for 2019 Data not available for 2020
Size of banking system as a percentage of financial system	Data not available for 2019 Data not available for 2020
Five-bank concentration of banking system	84.2% in 2019 84.5% in 2020
Foreign involvement in banking system	Data not available for 2019 Data not available for 2020
Government ownership of banking system	Data not available for 2019 Data not available for 2020
Existence of deposit insurance	Yes, in 2019 Yes, in 2020
<i>Sources: Bloomberg; World Bank Global Financial Development Database; World Bank Deposit Insurance Dataset.</i>	

Key Design Decisions

1. Purpose: The GBPP sought to preserve market functioning and supplant the BoC's fiscal agent activities before it transitioned to a QE program in June 2020.

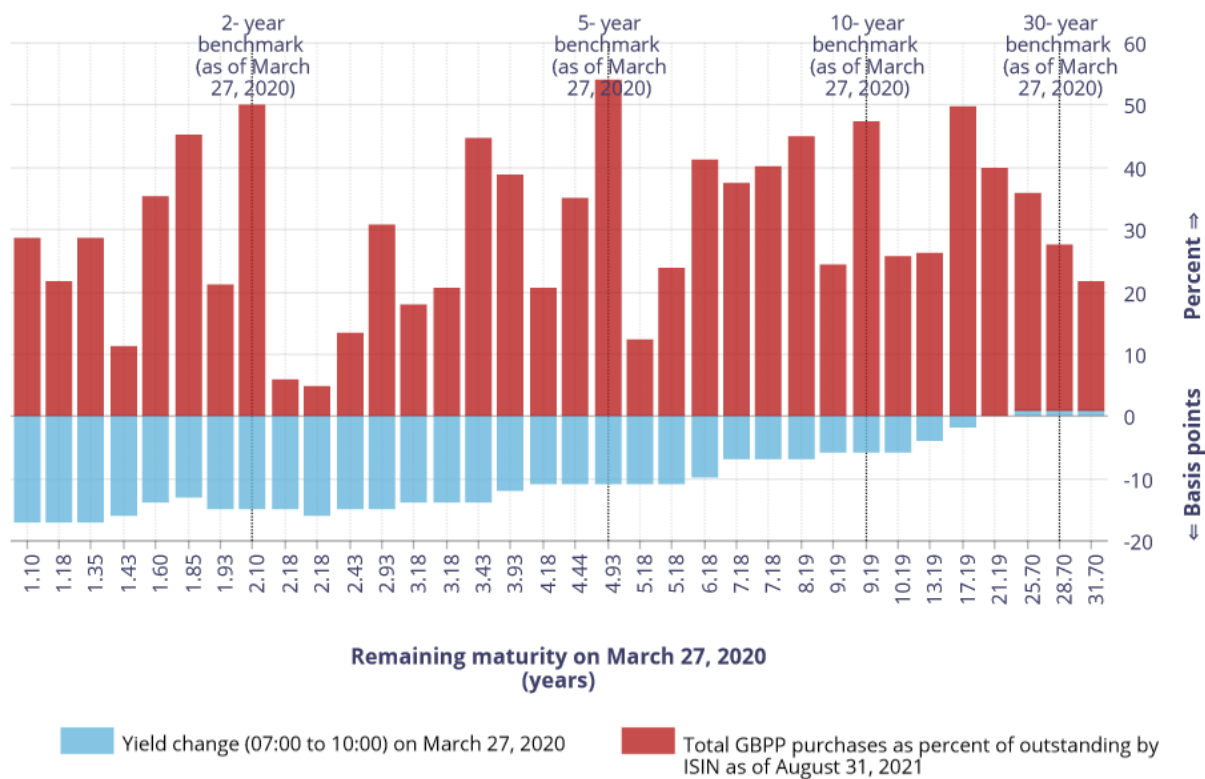
The GBPP started with two purposes: to support the functioning of the GoC bond market and to replace some technical liquidity management operations. Later in 2020, the BoC added a new mandate for quantitative easing.

First, the GBPP supported the functioning of the GoC bond market by narrowing bid-ask spreads on GoC bonds and providing a buyer for less-liquid bond issues. When the program was announced, BoC officials fielded questions from journalists who wondered if the GBPP was a form of quantitative easing. Governor Poloz emphasized that the central bank would label programs as QE if it were implementing a program for such purpose. Poloz acknowledged that GBPP and QE were “closely related” and shared methods. However, he said they had separate ends and stated that market functioning and price clearing were the GBPP's original objectives (Poloz and Wilkins 2020).

Second, the GBPP permanently replaced the BoC's long-standing *bond buyback* operations. The first of these operations fell under the BoC's role as *fiscal agent* to the GoC, a role that sought to ensure GoC accounts had enough liquidity to meet daily needs (BoC 2020c). These operations tried to smooth the redemptions of government bonds by purchasing short-dated securities that would mature on dates when many other securities would also mature (BoC 2012, 1). The BoC said that the GBPP would lend “significant support to the liquidity and efficiency of the government bond market, reducing the need for these fiscal agent operations” (BoC 2020c). The other buyback operations aimed to improve the liquidity of the government bond market by purchasing bonds from less-liquid issues or swapping those with bonds from more-liquid issues. The BoC had conducted these operations since at least 1998 (Gravelle 1998, 10–17). The BoC did not signal why it chose to adopt the GBPP in favor of these buybacks.

On June 22, 2020, the new BoC governor, Tiff Macklem—appointed June 3, 2020—signaled that the purpose of GoC bond purchases had shifted. His speech referred to the GBPP as macroeconomic stimulus and labeled it as QE. Subsequently, the BoC described the GBPP's mission as “supporting the resumption of growth in output and employment” (BoC 2020a). On October 27, 2021, the BoC announced that it would stop QE but maintain the GBPP at its current size, then CAD 290 billion, by reinvesting maturing bonds (BoC 2021c).

Figure 2: Yield Change and Purchase Amounts for GoC Securities of Various Maturities



Sources: Arora et al. 2021; benchmark refers to bonds designated by financial markets as reference points for performance comparisons (BoC 2021a, 29).

2. Part of a Package: The GBPP also supported the BoC's other programs.

The GBPP also lent support to the rest of the Bank's programs. Starting March 13, the BoC launched programs to purchase corporate debt, provincial debt, and mortgage-backed securities, and to enter term repurchase agreements, while the GoC announced a large package of fiscal measures (see Department of Finance 2020; Runkel 2021). These markets faced much more acute pressure than the GoC bond market. Governor Poloz argued that "a firefighter has never been criticized for using too much water" (Poloz and Wilkins 2020, 37:15). BoC officials had explained that closing bid-ask spreads in GoC bonds would relieve pressure in other markets as investors reallocated their portfolios in search of yield.

3. Legal Authority: The Bank of Canada Act explicitly allowed the BoC to purchase Government of Canada securities.

Section 18(c) of the Bank of Canada Act (1985) explicitly authorized the BoC to purchase securities issued by the Government of Canada.

4. Governance: The Governing Council approved the policy.

The BoC Governing Council—composed of the Governor, Senior Deputy Governor, and four Deputy Governors—met virtually each day throughout the crisis. They decided on the path of secondary-market purchases (Poloz and Wilkins 2020).

The Bank of Canada Act (1985, vol. c. B-2, sec. 28) also enabled the Minister of Finance to appoint auditors of the BoC and to require that those auditors report on bank affairs to the Minister “from time to time”. The Bank of Canada Act required the BoC to publish its policy allowing outright transactions in the *Canada Gazette*. It was then required to wait seven days before enacting its policy.

5. Administration: The BoC administered the GBPP; however, it is not clear how it organized its staff to implement the facility.

The GBPP purchased securities directly from primary dealers through the CDSX platform.

6. Communication: BoC communications were light after a press conference announcing the GBPP.

During the press conference in which the BoC announced the GBPP, Governor Stephen Poloz and Deputy Governor Carolyn Wilkins walked through the policy and parsed its objectives. The contents of this press conference, which set out the GBPP’s purpose, are discussed further in Key Design Decision No. 1, Purpose.

Following this press conference, the BoC spoke little about the GBPP until Macklem’s June 22, 2020, speech announcing that the program would continue as the country’s first-ever attempt at QE. Thereafter, BoC officials and official documents reflected the change by referring to the program as QE (Beaudry 2020, 2; BoC 2020e, 28).

7. Disclosure: The BoC published transaction-level data and the GBPP’s aggregate purchases.

The BoC was required to publish its balance sheets but not any more granular data (Bank of Canada Act 1985, vol. c. B-2, sec. 29). The BoC exceeded the requirements imposed by Section 29 by publishing details of each purchase on its website, including size, time, and price paid (BoC 2020–2021).

8. Use of SPV: The GBPP did not use an SPV.

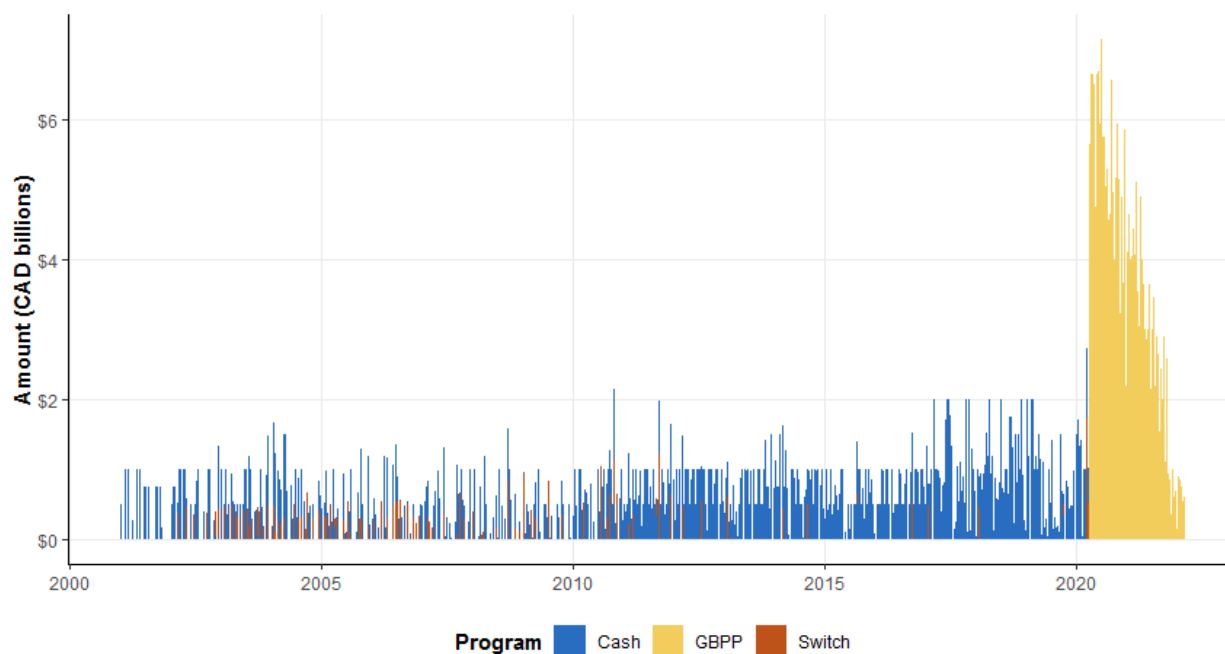
No documents suggest that the BoC used a special-purpose vehicle to administer the GBPP.

9. Size: The GBPP’s size was not predetermined.

The BoC committed to purchasing CAD 5 billion weekly when it announced the GBPP (BoC 2020b). In practice, its weekly purchases averaged CAD 4 billion and varied between CAD 1 billion and CAD 8 billion. This average was an order of magnitude larger than the

BoC's previous purchases of government bonds, as shown in Figure 3 (BoC 2020–2021). Before COVID-19, the BoC averaged purchases in the hundreds of millions of dollars and had never purchased more than CAD 2.2 billion in any single week (BoC 2001–2020; BoC 2002–2020; BoC 2020–2021). The GBPP added substantial size to the BoC's balance sheet and reflected a change in appetite favoring outright purchases over repurchase agreements. As of October 2021, when the BoC ended new net purchases of GoC securities, the GBPP had CAD 290 billion outstanding.

Figure 3: Size of Weekly GBPP Purchases Compared to Pre-COVID-19 Buyback Programs



Sources: BoC 2001–2020; BoC 2002–2020; BoC 2020–2021.

10. Source(s) of Funding: The Bank of Canada funded purchases by expanding its balance sheet.

To fund the GBPP, the BoC credited government securities distributors' settlement balances (BoC 2020b). The GBPP was indemnified by the GoC: the government agreed to cover losses and, in return, it received any gains (BoC 2021b, 21).

11. Eligible Institutions: Authorized government securities distributors and, by proxy, their customers participated in the GBPP.

The BoC allowed Canadian government securities distributors⁴ and their customers to participate in the GBPP (BoC 2020d). Distributors submitted bids on their own behalf and on behalf of their customers (BoC 2020d). Documents do not suggest which distributors and customers participated in the auctions.

12. Auction or Standing Facility: The GBPP conducted reverse multi-rate auctions.

A day before each operation, the BoC announced its size, timing, and the eligible GoC securities. On the day of the operation, participants submitted bids specifying up to five bids for the securities distributor and five bids on behalf of each of their customers. Each bid identified the security to be sold, the yield a bidder was willing to accept, and the amount a bidder would sell in CAD 1,000 increments above CAD 1 million. The BoC then accepted bids starting with the highest yield rates until the accepted bids exhausted the total allotment. Successful bidders received the rate they offered (BoC 2020d). Figure 4 shows sample results of GBPP auctions on April 1 and 2, 2020.

⁴ The set of government securities distributors, which are firms authorized to participate in government securities auctions, was slightly larger than the set of primary dealers due to internal divisions between bank affiliates that distribute Treasury bills and marketable bonds, and a few independent distributors not included in the list of primary dealers. The following institutions were distributors: Bank of Montreal (BMO); Beacon Securities; Canaccord Genuity; Canadian Imperial Bank of Commerce (CIBC); Casgrain & Company; CTI Capital Securities; Desjardins; HSBC; Laurentian Bank; Merrill Lynch; National Bank of Canada (NBC); Odium Brown; Royal Bank of Canada (RBC); Scotiabank/Bank of Nova Scotia (BNS); Sherbrooke Street Capital (SSC); Toronto-Dominion (TD) Bank.

Figure 4: Sample results of GBPP auctions

Auction date	ISIN	Amount (CAD)	purchased	Cutoff (%)	yield	Term
4/1/2020	CA135087H987		235 million		0.480	5 years
4/1/2020	CA135087J546		192 million		0.500	5 years
4/1/2020	CA135087B451		225 million		0.496	5 years
4/1/2020	CA135087J967		250 million		0.519	5 years
4/1/2020	CA135087D507		0		NA	5 years
4/1/2020	CA135087VH40		98 million		0.531	5 years
4/2/2020	CA135087E679		37 million		0.510	10 years
4/2/2020	CA135087F825		366 million		0.535	10 years
4/2/2020	CA135087VW17		171 million		0.553	10 years
4/2/2020	CA135087H235		80 million		0.537	10 years
4/2/2020	CA135087WL43		131 million		0.611	10 years
4/2/2020	CA135087XG49		15 million		0.808	10 years

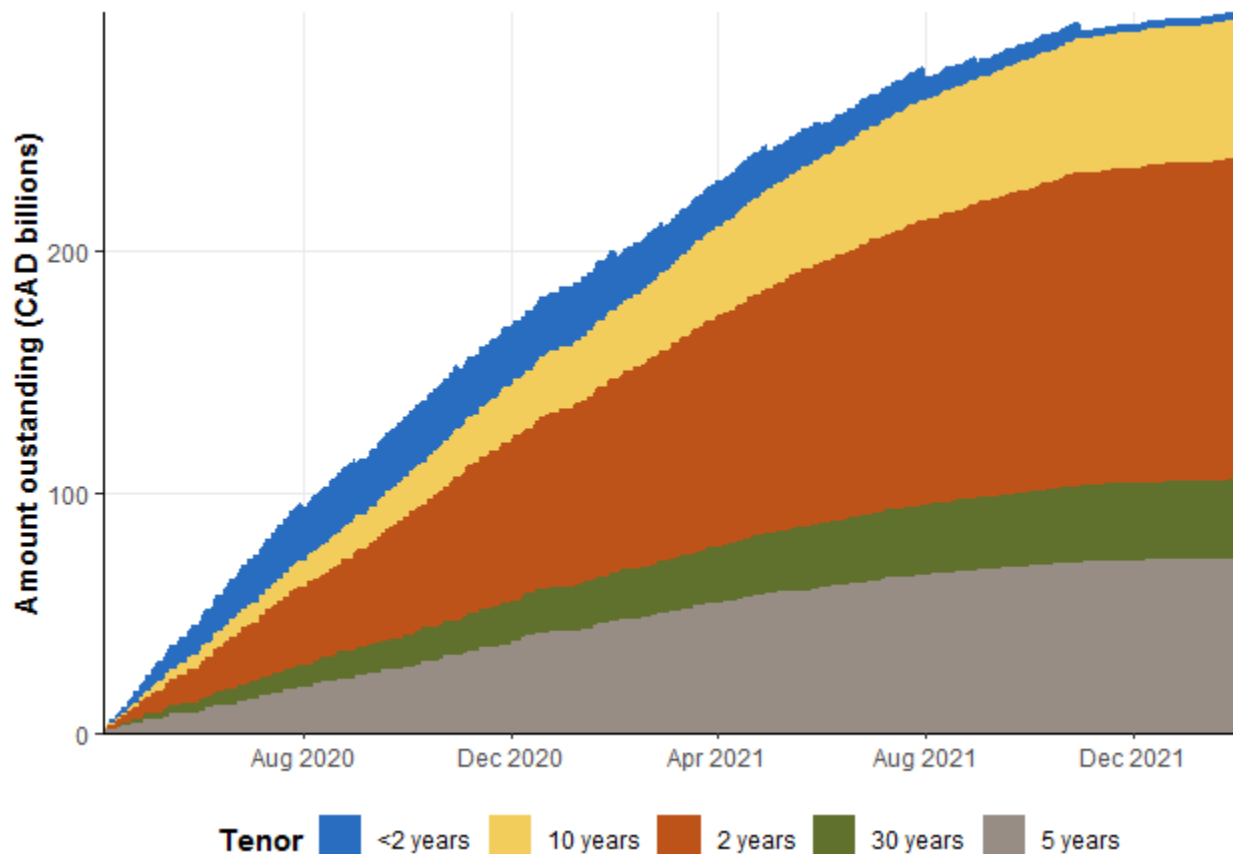
Source: BoC 2020–2021

13. Loan or Purchase: The Bank of Canada purchased securities outright from distributors through CDSX.

Successful bidders delivered GoC bonds through the CDSX platform, owned and operated by Clearing and Depository Services (CDS). Settlement occurred two days later.

14. Eligible Assets: The GBPP purchased GoC bonds.

Before each operation, the BoC announced a basket of eligible securities, usually eight to 10 bonds per tenor, that it would purchase (BoC 2020d; BoC 2020–2021). Only GoC securities were eligible; provincial debt was not. Sometimes participants sold the full allotment of these securities, and sometimes they didn't sell any—rarely did they sell anywhere in between. As shown in Figure 5, the GBPP primarily purchased securities in tenors of two years, followed by five-year and 10-year bonds (BoC 2020–2021). As Figure 1 shows, the GBPP stopped purchasing bonds with tenors less than two years in fall 2020.

Figure 5: Outstanding GBPP Purchases by Tenor

Source: (BoC 2020–2021)

15. Purchase Price: Bids could be any price.

Bidders were not subject to a minimum price or maximum yield.

16. Haircuts: The GBPP did not impose haircuts.

As a bond purchase program, the GBPP took no collateral and therefore imposed no haircuts.

17. Interest Rates: The GBPP accepted the results of its auctions.

Auction data indicate that the GBPP purchased bonds at the price resulting from its auctions.

18. Fees: The BoC did not charge any fees.

No documents suggest that the BoC charged fees to issuers of securities that it purchased.

19. Term/Repayment: Assets matured at their scheduled coupon date.

The GBPP did not amend the scheduled maturities of assets it purchased.

20. Other Restrictions on Eligible Participants: Participants could not collude with each other.

The BoC prohibited bidders from colluding, though it did not announce any mechanisms to enforce this rule (BoC 2020d).

21. Regulatory Relief: Participants received no regulatory relief when participating in the GBPP.

No documents suggest that distributors received relief from capital or liquidity regulations as a result of participating in the GBPP.

22. International Coordination: The BoC did not coordinate with other countries for the GBPP.

Though several countries launched government bond-buying programs, none were connected to the Canadian market.

23. Duration: The GBPP became a QE program in June 2020 and continued solely as a cash-management program in October 2021.

On June 22, 2020, the BoC governor labeled the GBPP as quantitative easing (QE), signaling the end of the GBPP as a tool to provide market liquidity during the March panic (Macklem 2020). The governor cited the economic effects of the COVID-19 crisis as he spoke about the GBPP, rather than its efforts to replenish market liquidity. The GBPP continued as both a QE and cash-management tool until October 2021, when the BoC ended QE.

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