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Canada: Term Purchase and Resale Agreement Facility[1]

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Abstract

In December 2007, the Bank of Canada (BoC) established the Term Purchase and Resale Agreement (Term PRA) facility to ease pressures in short-term funding markets, in coordination with six other G10 countries. The facility allowed Canadian primary dealers and major banks that participated in Canada's payments system, the Large Value Transfer System (LVTS), to obtain collateralized short-term funding. Initially, Term PRA operations limited eligible collateral to government-issued securities and certain banker's acceptances, but the BoC later expanded the program to include a wider range of money market instruments. The BoC activated the Term PRA facility on three occasions: December 2007, March 2008 (shortly before the failure of Bear Stearns), and September 2008 (following the failure of Lehman Brothers). In April 2009, the Term PRA facility instead became a tool for monetary policy, as the BoC began to use longer-term PRA auctions to maintain the overnight rate at 25 basis points (bps). Outstanding usage of the Term PRA facility peaked at CAD 37 billion (USD 30 billion) on December 4, 2008, during its third iteration. Term PRA auctions were typically oversubscribed. There is scholarly evidence that the announcements of the Term PRA facility coincided with a decline in rates, but a causal relationship could not be determined.

Keywords: Canada, Global Financial Crisis, Lehman Brothers, Term Loan Facility, Term PRA facility

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[1] This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering broad-based emergency lending programs. Cases are available from the *Journal of Financial Crises* at
https://elischolar.library.yale.edu/journal-of-financial-crises/.

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Overview

The Bank of Canada (BoC) introduced the Term Purchase and Resale (Term PRA) facility in December 2007 in response to pressures in short-term funding markets, and in cooperation with six other G10 countries, (BoC 2007a). The BoC initially used the Term PRA facility to provide one-month funding backed by a narrow range of collateral to primary dealers (Arjani and McVanel 2006; Enenajor, Sebastian, and Witmer 2012; BoC 2007a). It later offered funding at terms of three months, backed by a broader set of collateral, and extended the program to major banks that were direct participants in Canada's Large Value Transfer System (LVTS) (BoC 2013b).

The BoC let the first iteration of the Term PRA facility expire in January 2008 as market conditions improved and the BoC determined that the "event risk" had diminished. The BoC revived the facility in March 2008 as market conditions deteriorated again in the weeks before the failure of Bear Stearns, a US investment bank. Again, the BoC determined that the facility was not needed any further in July 2008 (Enenajor, Sebastian, and Witmer 2012). The BoC activated the final iteration of the facility in September 2008, as the collapse of Lehman Brothers, another US investment bank, sparked panic in funding markets. The facility remained in place until July 2010, when its final operation matured (Enenajor, Sebastian, and Witmer 2012).

On April 21, 2009, the BoC began to use Term PRA operations to support its monetary policy (BoC 2009b). The BoC used the program to maintain the overnight rate at its target of 25 basis points (bps) by rolling over a portion of its existing stock of one- and three- month Term PRAs into six- and 12-month terms, with the longest term operations maturing at the end of the BoC's

Key Terms

Purpose: To "provide funding liquidity directly to major market participants to stabilize the financial system and to limit spillover effects to the broader economy" (Longworth 2010)

Launch Dates	First iteration: December 12, 2007 Second iteration: March 11, 2008 Final iteration: September 18, 2008
Expiration Dates	July 21, 2010
Legal Authority	Bank of Canada Act Section 18
Peak Outstanding	CAD 37 billion
Participants	Primary dealers and banks that participated in the Large Value Transfer System (LVTS)
Rate	Multiple yield competitive auction
Collateral	Initially narrow range of collateral, but widened to include all collateral accepted in the Standing Liquidity Facility
Loan Duration	Initially one month; later three months; extended up to 12 months
Notable Features	Coordinated with actions taken by six other central banks
Outcomes	Widespread usage of the facility coincided with a reduction in bank financing costs.

commitment (Enenajor, Sebastian, and Witmer 2012). The operations imposed minimum and maximum bid rates corresponding to the target rate and Bank Rate, respectively (BoC 2009b).

The Term PRA facility peaked at CAD 37 billion (USD 30 billion),[3] roughly 2.3% of Canadian GDP and 1.2% of the Canadian banking system's assets (Enenajor, Sebastian, and Witmer 2012).

Summary Evaluation

Enenajor, Sebastian, and Witmer (2012) found that Term PRA announcements coincided with an average 9-bps reduction in the CDOR-OIS spread, a common bank financing metric. According to a BoC report, the "regular term PRA facility helped to improve the supply and distribution of term liquidity during periods of elevated financial market stress and, more generally, helped these markets to continue to function" (Zorn, Wilkins, and Engert 2009).

BoC researchers noted the contrast between the widespread usage of the Term PRA facility and the limited demand for the other facilities that the BoC implemented during the crisis to provide backstop liquidity to banks for their holdings of money market instruments, other securities, and non-mortgage loans (Zorn, Wilkins, and Engert 2009). Banks were able to obtain market financing for those holdings on better terms (Zorn, Wilkins, and Engert 2009).

[3] Per Yahoo Finance, USD 1 = CAD 1.25 on December 1, 2008.

Context: Canada 2007–2008	
GDP (SAAR, nominal GDP in LCU converted to USD)	$1.469 trillion in 2007 $1.553 trillion in 2008
GDP per capita (SAAR, nominal GDP in LCU converted to USD)	$44,660 in 2007 $46,711 in 2008
Sovereign credit rating (five-year senior debt)	Data for 2007: Moody's: Aaa S&P: AAA Fitch: AAA Data for 2008: Moody's: Aaa S&P: AAA Fitch: AAA
Size of banking system	$2.249 trillion in 2007 $1.827 trillion in 2008
Size of banking system as a percentage of GDP	137.42% in 2007 136.39% in 2008
Size of banking system as a percentage of financial system	Data not available for 2007 Data not available for 2008
Five-bank concentration of banking system	89% in 2007 93% in 2008
Foreign involvement in banking system	4% in 2007 4% in 2008
Government ownership of banking system	Data not available for 2007 Data not available for 2008
Existence of deposit insurance	Yes, in 2007 Yes, in 2008
Sources: Bloomberg; World Bank Global Financial Development Database; World Bank Deposit Insurance Dataset.	

Key Design Decisions

1. **Purpose: The Bank of Canada introduced the Term Purchase and Resale Agreement facility to address heightened pressures in short-term funding markets.**

As the Global Financial Crisis heated up in August 2007, bank financing in Canada became extremely difficult, while the market for asset-backed commercial paper (ABCP) froze. Reflecting this, the CDOR-OIS spread, a measure of Canadian bank financing costs, jumped 40 basis points (bps) over its 7-bps average). This spread began to narrow from October to November 2007, but renewed market pressures reversed this trend in December almost back to the level in August. In response, the Bank of Canada (BoC) announced the Term Purchase and Resale Agreement (Term PRA) facility on December 12, 2007 (Enenajor, Sebastian, and Witmer 2012). A deputy governor of the BoC later referred to the purpose of the Term PRA facility at introduction as “to provide funding liquidity directly to major market participants to stabilize the financial system and to limit spillover effects to the broader economy” (Longworth 2010).

2. **Legal Authority: The BoC had the authority to perform repo transactions under the Bank of Canada Act and had done so prior to launching the Term PRA facility in 2007, but it had to amend the policy statement that implements the Act to allow it to lend longer than 180 days.**

The BoC had previously conducted Term PRA transactions on an occasional basis by purchasing Government of Canada securities to temporarily increase its assets to offset temporary increases in banknote liabilities (Zorn, Wilkins, and Engert 2009). This authority comes from Section 18 of the Bank of Canada Act (*Bank of Canada Act* 1985). According to a policy statement published in July 2008, the BoC can operate the Term PRA facility if it is “addressing a situation of financial system stress that could have material macroeconomic consequences” (Carney 2008, 2235)

At the BoC’s request, the Parliament amended Section 18 in August 2008 to give the Bank greater flexibility to purchase and sell a wider range of securities for the purposes of conducting monetary policy and supporting financial system stability (Zorn, Wilkins, and Engert 2009). The amendment allowed the Bank to buy and sell securities with terms longer than 180 days, a feature that became relevant for the 2009 implementation of the Term PRA (*Bank of Canada Act* 1985, Sec. 18[g][i]).[4] On June 22, 2009, the BoC revised the policy statement that implements Section 18 to allow for lending at terms up to 380 days (Carney 2009, 1879).

[4] The revised language in Sec. 18[g][i] also allows the BoC, in normal times, to buy or sell any security issued by any person, other than equity interests.

3. Part of a Package: The Term PRA facility was not implemented as part of a package but complemented many similar liquidity programs implemented by the BoC in response to the Global Financial Crisis.

From 2007 to 2009, Canada's liquidity framework evolved significantly in response to the financial crisis (Zorn, Wilkins, and Engert 2009). The Term PRA was one of many tools the BoC used to provide liquidity to banks and markets. Other tools available to the BoC included the Term Loan Facility, the Term PRA for Private Sector Instruments, a US dollar swap facility (which was unused), and new monetary policy frameworks. See Figure 1 for a comparison of the different liquidity facilities implemented by the BoC.

Figure 1: BoC Liquidity Facilities

	Term PRA facility	Term PRA for Private Sector Instruments (two iterations)	Term Loan Facility
First Announced	December 12, 2007	October 14, 2008	November 12, 2008
Participants	Primary dealers and banks that were direct participants in the LTVS	Primary dealers, as well as money market participants on an indirect basis	Banks that were direct participants in the LTVS
Eligible Collateral	Securities eligible for the BoC's Standing Liquidity Facility, a permanent overnight facility for temporary imbalances in settlement balances	Initially, investment-grade private sector money market instruments; later included bonds issued by Canadian or foreign entities	Non-mortgage loans
Term	Initially 2 weeks and 1 month; later included 3, 6, 9, 12 months	Initially 2 weeks; later 1 and 3 months	1 month
Frequency	Varied from weekly to monthly	Weekly	Weekly
Peak Outstanding (CAD)	37 billion	3 billion	4 billion
Final Expiration	July 21, 2010	October 27, 2009	October 28, 2009

Source: BoC 2013a.

4. Management: The BoC managed the Term PRA facility.

The BoC announced the details of Term PRA auctions and established the terms and conditions (BoC 2009a).

5. Administration: The BoC structured the program in auctions of varying amounts, durations, and frequencies.

Initially, the Term PRA facility was structured as a competitive auction for a set amount of Canadian dollars without a minimum bid rate (Lavoie, Sebastian, and Traclet 2011). Based on the auction results, the BoC purchased collateral from the counterparties with the

agreement to sell it back at a later date (Enenajor, Sebastian, and Witmer 2012). Eligible participants submitted up to three bids, in the form of yields, through primary dealers (BoC 2009a). The BoC granted the highest yield among all bids a full allocation of funds and then allocated funds to the next highest yield bid in descending order until the full allotment had been made. The lowest yield allotted funds was called the "cut-off yield." At this point, any bids at the cut-off yield received a proportional allocation (Enenajor, Sebastian, and Witmer 2012).

The Bank of Canada only offered one maturity option at individual auctions (BoC 2013b). The minimum amount that could be bid was CAD 10 million and increments of CAD 1 million applied. Participants could bid for up to 25% of the auctioned amount, though primary dealers and LVTS banks rated BBB or below could only bid up to 12.5% of the auctioned amount. The BoC kept all coupon and interest payments received with respect to pledged collateral under Term PRA transactions and adjusted the final settlement amounts to account for these payments (BoC 2009a).

The auctions initially occurred biweekly but became weekly during the third iteration in September 2008, possibly as a result of continued market pressure.

6. Eligible Participants: Initially, the BoC only allowed Canadian primary dealers to participate in the Term PRA facility but expanded eligibility to major banks that were direct participants in the Canadian Large Value Transfer System.

When introduced in December 2007, the Term PRA facility provided short-term collateralized funding to primary dealers, which were the only eligible parties throughout its first two iterations (December 2007–January 2008 and March–July 2008). In 2008, there were 12 primary dealers of Canadian bonds; they were the BoC's main counterparties in market operations (Zorn, Wilkins, and Engert 2009).[5]

When the BoC revived the Term PRA facility in September 2008 amidst increased turmoil in financial markets, the BoC announced that all participants in the Large Value Transfer System (LVTS) could access the Term PRA facility beginning October 21, 2008 (BoC 2008c). The LVTS is Canada's quasi-public payment and settlement system, which handled about 90% of financial transactions in the country (Arjani and McVanel 2006). In 2008, the LVTS had 14 participants, eight of which had affiliates included in the list of 12 primary dealers already eligible for the Term PRA facility (Zorn, Wilkins, and Engert 2009).

According to the Terms and Conditions released in April 2009, affiliates did not count as separate entities for the purposes of bidding in the Term PRA facility, unless they had a "strict arm's-length relationship" (BoC 2009a).

[5] The 12 primary dealers were BMO Nesbitt Burns Inc., Casgrain and Co. Ltd., CIBC World Markets Inc., Desjardins Securities, Deutsche Bank Securities Ltd., HSBC Securities (Canada), Merrill Lynch Canada, Laurentian Bank Securities Inc., National Bank Financial Inc., RBC Dominion Securities Inc., Scotia Capital Inc., and the Toronto Dominion Bank (Zorn, Wilkins, and Engert 2009).

7. Funding Source: The BoC funded the Term PRA facility with its balance sheet.

According to a market notice provided by the BoC, Term PRA "transactions will temporarily add assets to the Bank of Canada's balance sheet" (BoC 2007a).

8. Program Size: The Bank of Canada never established a size limit on the Term PRA facility, instead announcing individual auction sizes.

The first two auctions in December 2008 were each allocated CAD 2 billion. They were the only auctions conducted in the first iteration of the Term PRA facility. When the BoC revived the facility in March 2008, seven auctions ranged from CAD 1 billion to CAD 2 billion in individual size for a total of CAD 12 billion, with roughly CAD 4 billion outstanding on average (Enenajor, Sebastian, and Witmer 2012). All of these auctions were oversubscribed (BoC 2013b).

When the BoC reinstated the Term PRA facility for the third time in September 2008, it raised the amount of lending passing through the facility. Over 67 auctions, the BoC lent CAD 245 billion, with individual auctions ranging from CAD 0.75 billion to CAD 12 billion. This iteration accepted a wider range of collateral and eligible counterparties and held weekly auctions (BoC 2013b). According to Enenajor, Sebastian, and Witmer (2012), the peak outstanding was CAD 37 billion, equivalent to "2.3% of Canadian GDP and 1.2% of the assets of the Canadian banking system at the time."[6] See Figure 2 for an overview of the three iterations of the Term PRA facility.

Figure 2: Term PRA Facility Size and Utilization

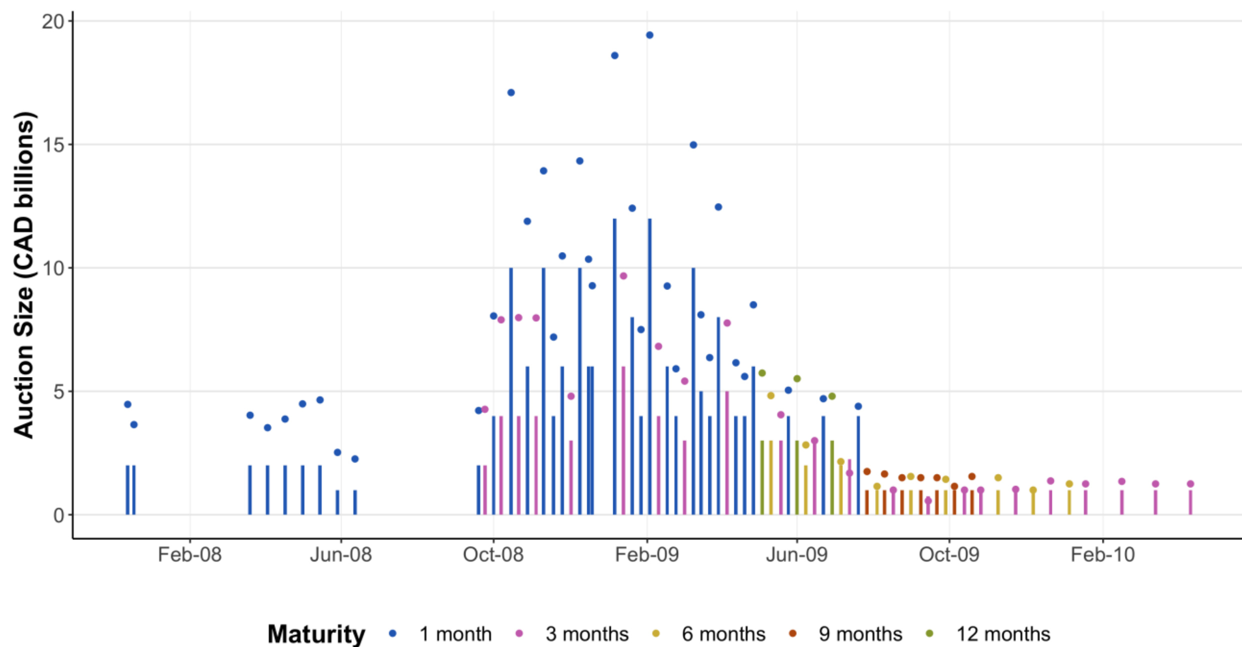
Iteration	Eligible Participants	Number of Auctions	Size of individual auctions (CAD)	Peak Outstanding (CAD)
December 2007–January 2008	Primary dealers	2	2 billion	4 billion
March–July 2008	Primary dealers	7	1 billion–2 billion	4 billion
September 2008–July 2010	Primary dealers and LVTS participants	67	0.8 billion–12 billion	37 billion

Sources: Enenajor, Sebastian, and Witmer 2012; BoC 2013b.

About 70% of eligible institutions participated in the first two iterations of the Term PRA facility. Participation remained very strong at the beginning of the third iteration of the facility but declined sharply after May 2009, as market financing became cheaper and more available (Zorn, Wilkins, and Engert 2009). See Figure 3 for a depiction of the Term PRA auctions over time.

[6] The authors also provided a comparison to the size of the US Federal Reserve's Term Auction Facility (TAF), which had a similar function. The TAF had a peak outstanding amount of USD 493 billion, equivalent to 3.5% of US GDP and 2.7% of US banking assets (Enenajor, Sebastian, and Witmer 2012).

Figure 3: Auction and Bid Sizes, by Maturities



Note: Dots represent amount bid in each auction, while bars depict the size of the auction on offer.

Sources: Author's creation; BoC 2013b.

9. Individual Participation Limits: A participant could bid for a maximum of 25% of the auctioned amount, with restrictions on their aggregate holdings of all outstanding Term PRAs.

Each participant rated A or higher could bid for a maximum of 25% of the amount offered in any auction and hold up to 25% of all outstanding Term PRAs. Participants rated BBB or lower could bid for a maximum of 25% of the amount offered in any auction but were limited to holding 12.5% of the outstanding aggregate Term PRA funding at any given point (BoC 2009a). Each participant could make up to three bids.

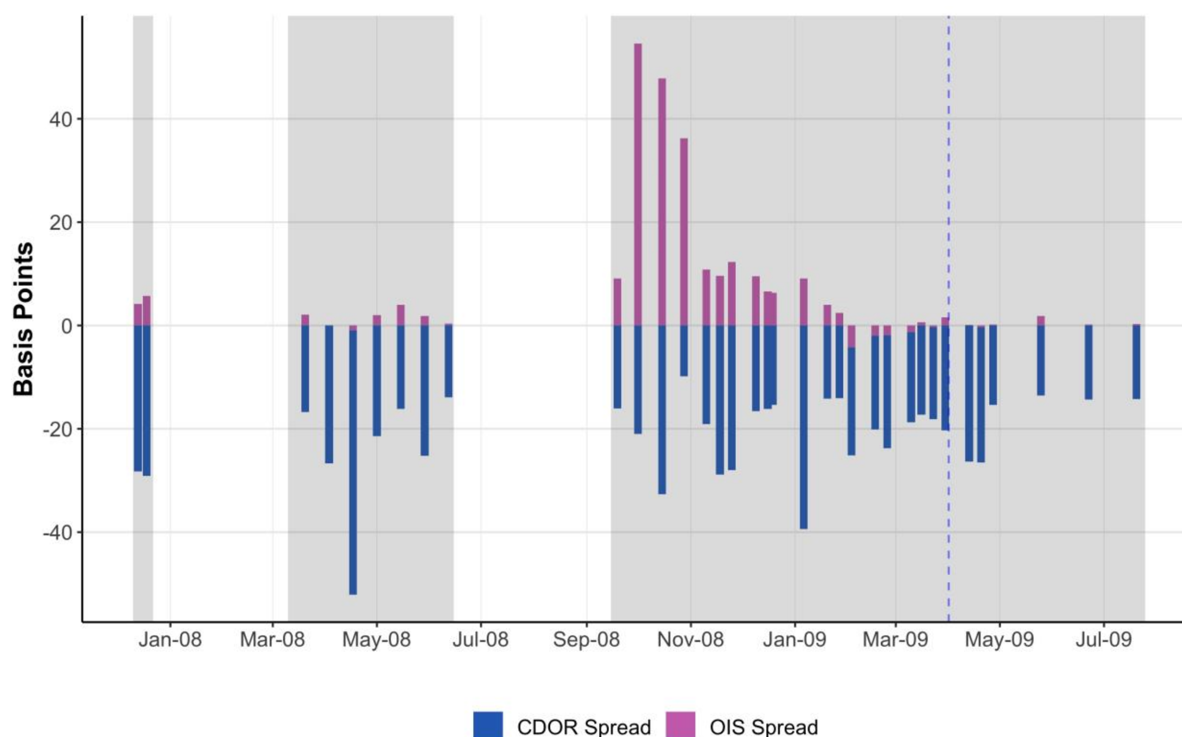
10. Rate Charged: There was no minimum or maximum bid rate before April 2009, when the program shifted its focus to supporting monetary policy.

During 2007 and 2008, the Term PRA facility priced its liquidity provision using an auction with no minimum or maximum bids. As a result, the spread between the facility's average bids and the market rate for unsecured borrowing, the Canadian Dealer Offered Rate (CDOR), represented the liquidity premium paid by banks for secured central bank lending (Zorn, Wilkins, and Engert 2009). As seen in Figures 4 and 5, the PRA-CDOR spread mostly stayed negative at both the one- and three-month maturities, meaning the central bank facility was cheaper than market financing during this period. However, the PRA-CDOR spread was positive for two three-month auctions in the fall of 2008, when markets were most distressed, which may be attributable to the high demand for BoC funding. The figures also

show the spread between the Term PRA facility and the Overnight Indexed Swap (OIS) rate, which represents the market rate for lending secured by Government of Canada securities. Therefore, the PRA-OIS spread depicts the difficulties market participants faced in finding secured market lending (Zorn, Wilkins, and Engert 2009).

In April 2009, the BoC decided to utilize the Term PRA facility as a channel for influencing monetary policy. The BoC was committed to maintaining the target overnight rate through at least late 2010. To reinforce the target overnight rate, the BoC introduced minimum and maximum bid rates to conform to the overnight rate's lower and upper operating limits, respectively (Lavoie, Sebastian, and Traclet 2011). This amounted to 25 bps and 50 bps (BoC 2009a). Figures 4 and 5 show that the OIS spreads on bids after this change are negligible.

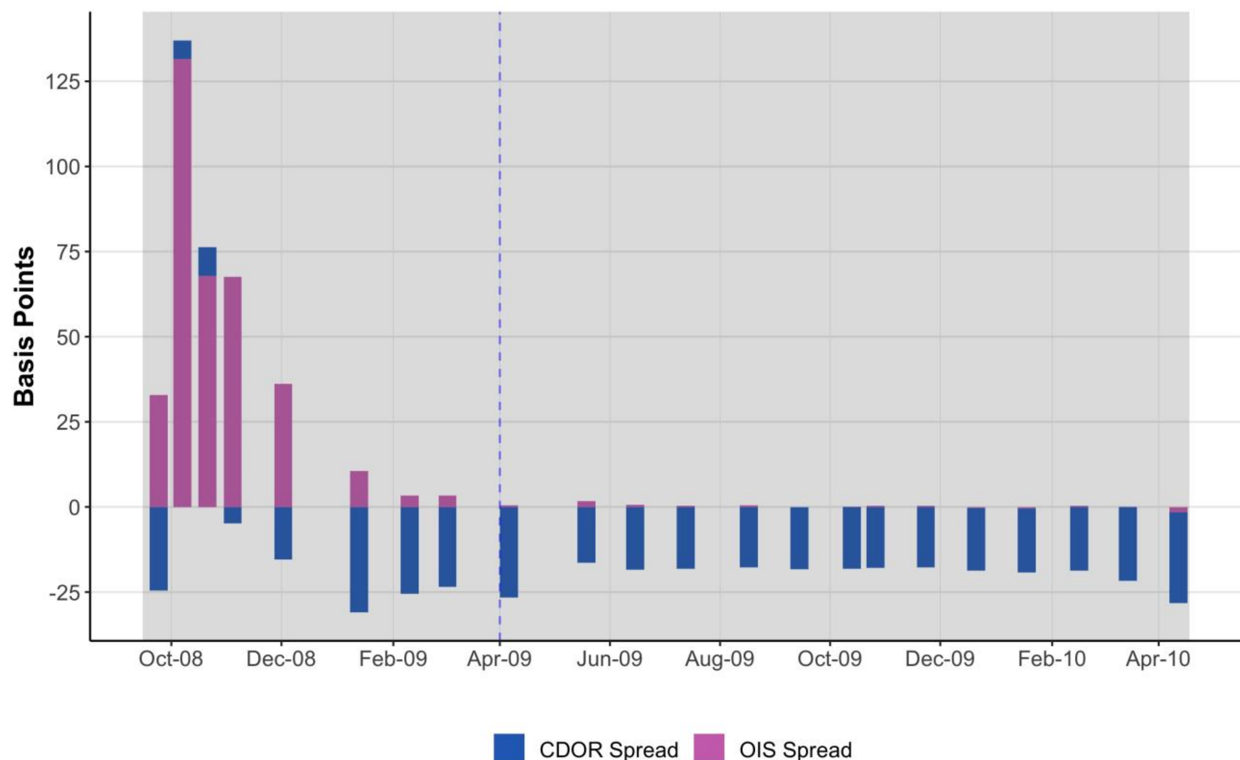
Figure 4: One-Month Regular-Term PRA: Spreads Between the Average Bid Rate and Applicable Market Rates



Note: Gray area indicates the periods during which the BoC offered one-month maturities. The blue line indicates the start of April 2009 when the BoC began utilizing the Term PRA facility to conduct monetary policy.

Sources: Author's re-creation; Zorn, Wilkins, and Engert 2009; BoC 2013b; Bloomberg.

Figure 5: Three-Month Regular-Term PRA: Spreads Between the Average Bid Rate and the Market Rate



Note: Gray area indicates the period during which the BoC offered three-month maturities. The dotted blue line indicates the start of April 2009, when the BoC began utilizing the Term PRA facility to conduct monetary policy.

Sources: Author's re-creation; Zorn, Wilkins, and Engert 2009; BoC 2013b; Bloomberg.

11. Eligible Collateral: The Term PRA facility initially limited collateral to securities issued or guaranteed by the Canadian government or provinces and certain bankers notes, but expanded acceptable collateral in September 2008 to include all securities eligible for the BoC's Standing Liquidity Facility.

When it was first introduced and during its second iteration, the Term PRA facility accepted the following as collateral:

- securities issued or guaranteed by the Government of Canada (including Canada Mortgage Bonds and NHA mortgage-backed securities with a minimum pool size of CAD 75 million),
- securities issued or guaranteed by a provincial government, and
- bankers' acceptances and bearer deposit notes with a remaining term to maturity of less than or equal to 180 days (BoC 2007a).

When the facility was introduced for the third time in September 2008 the BoC expanded the range of eligible collateral to include all securities eligible for the Standing Liquidity Facility (SLF) (Enenajor, Sebastian, and Witmer 2012).[7] More specifically, the following securities became eligible:

- Government of Canada stripped coupons and residuals;
- securities guaranteed by the Government of Canada (including Canada Mortgage Bonds and NHA mortgage-backed securities with a minimum pool size of CAD 25 million);
- bankers' acceptances, promissory notes, commercial paper and short-term municipal paper including those of foreign issuers with a maximum term of 364 days and a minimum issuer credit rating of R1, A-1, or P1 by the Dominion Bond Rating Service, Standard and Poor's, and Moody's Investors Service, Moody's Investors Service respectively;
- corporate, municipal, and foreign-issuer bonds with a minimum long-term issuer credit rating of A, A-, or A3 by the Dominion Bond Rating Service, Standard and Poor's, and Moody's Investors Service, respectively;
- Special Deposit Accounts held at the Bank of Canada;
- asset-backed commercial paper (ABCP) of eligible programs with at least two ratings of either R1, A-1, P1, or F1+ by the Dominion Bond Rating Service, Standard and Poor's, Moody's Investors Service, or Fitch Ratings, respectively; and
- marketable securities issued by the United States Treasury (BoC 2008b).

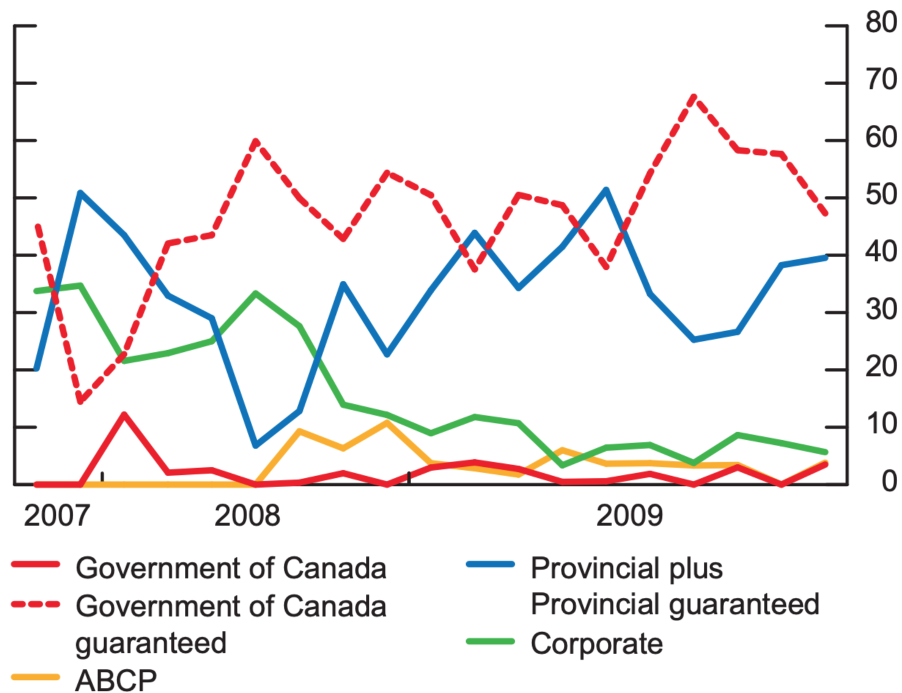
In December 2009, as conditions in funding markets improved, the BoC withdrew eligibility of affiliated-dealer bank-sponsored ABCP and BBB rated corporate bonds as collateral under the Term PRA facility (BoC 2009c).

In practice, Government of Canada securities, which were highly marketable and liquid even during the financial crisis, made up less than 5% of the securities pledged to the Term PRA facility. Participating institutions more frequently sold "less-liquid but still high-quality securities issued by public-sector entities," such as the Canada Housing Trust and bonds issued and guaranteed by provincial governments, which together accounted for around half of the securities purchased (Zorn, Wilkins, and Engert 2009). During the most stressed periods in the market, about 30% of Term PRA lending was secured by corporate bonds, commercial paper, and ABCP.

[7] The Standing Liquidity Facility is a permanent facility that "provides collateralized overnight funding to direct participants in the LVTS that experience temporary shortfalls in their settlement balances" (Engert, Gravelle, and Howard 2008).

The BoC applied individual collateral concentration limits as well. For example, a counterparty could only have 20% of its Term PRA holding backed by the "security or obligation of a single party" (BoC 2009a). Similarly, only 20% of the holding could be collateralized by ABCP sponsored by one institution. See Figure 6 for the collateral breakdown in the Term PRA facility across time.

Figure 6: Distribution of Securities Purchased under the Term PRA Facility—Average Percentage over Monthly Operations



Source: Zorn, Wilkins, and Engert 2009, 13.

For most of the collateral available, the BoC applied the same haircuts as the Standing Liquidity Facility. For bank-sponsored affiliated ABCP, which was not eligible for the SLF, the BoC applied a 22.5% haircut. Additionally, the haircuts applied to BBB-rated corporate securities depended on the maturity of the asset. The BoC applied a 13% haircut for corporate bonds with terms less than a year and 25% for terms longer than a year (BoC 2009a).

12. Loan Duration: The Term PRA facility initially offered funding at two weeks and one-month maturities, and later iterations also offered longer maturities.

The first iteration of the Term PRA facility auctioned funding at terms of two weeks and one month (Enenajor, Sebastian, and Witmer 2012; BoC 2007a). The second iteration of the facility, from March to July 2008, consisted solely of one-month operations, which were renewable by borrowers. Shortly after the third reintroduction of the Term PRA facility in

September 2008, the BoC introduced a three-month term option (Enenajor, Sebastian, and Witmer 2012).

When the BoC decided to utilize Term PRAs for monetary policy implementation beginning in April 2009, it converted some of its Term PRA auctions from one- and three-month maturities to six- and 12-month maturities, respectively (BoC 2009b). In July 2009, the BoC reduced the 12-month term to nine months, and in October 2009 the BoC reduced it further to six months (Zorn, Wilkins, and Engert 2009).

13. Other Conditions: Research did not determine other conditions implemented by the Bank of Canada.

Research did not determine other conditions implemented by the Bank of Canada.

14. Impact on Monetary Policy Transmission: The BoC turned the Term PRA facility into a monetary policy tool in April 2009 by lengthening the duration of Term PRA funding in order to influence long-term interest rates.

In the early stages of its operation, the Term PRA facility solely conducted liquidity provision. However, in April 2009, the BoC lowered the overnight target rate from 50 bps to 25 bps, which resulted in the Bank Rate dropping to 50 bps. In order to maintain the target rate at 25 bps, the BoC transformed some of its one- and three-month Term PRA auctions into six- and 12-month auctions, respectively. For this longer maturity Term PRA funding, the BoC set the minimum bid rate at its target rate (25 bps) and the maximum bid rate at the Bank Rate (50 bps) (BoC 2009b). Therefore, the Term PRA facility expanded beyond liquidity provision to direct monetary policy influence (Zorn, Wilkins, and Engert 2009).

15. Other Options: Research could not determine additional options considered by the Bank of Canada.

No further information related to the motivations for this decision were found.

16. Similar Programs in Other Countries: The BoC coordinated with several members of the G10 in addressing liquidity pressures in funding markets.

With the introduction of the Term PRA facility on December 12, 2007, several other members of the G10 also took action and announced "measures designed to address elevated pressures in short-term funding markets" (BoC 2007a). While the actions were independently directed and varied in nature, their nearly simultaneous launch signaled a recognition among major central banks that the financial system was interconnected and impacts to one jurisdiction could easily spread to another.

In the US, the Federal Reserve introduced its Term Auction Facility as well as swap lines with the European Central Bank (ECB) and Swiss National Bank (SNB) (Fed 2007). The ECB also renewed some of its supplementary longer-term refinancing operations (LTROs) (ECB 2007). The Bank of England introduced the Extended-Collateral Long-Term Repo (ELTR) operations (Fulmer 2022), and the SNB offered US dollar repos (Reuters 2007; SNB 2007).

17. Communication: The BoC announced the Term PRA facility through a press release on their website.

The BoC announced the Term PRA facility on December 12, 2007, in coordination with several other G10 members taking action to provide liquidity to financial markets and institutions. The Bank of England, ECB, the Federal Reserve, and the SNB announced measures similar to the BoC's, which was "designed to address elevated pressures in short-term funding markets" (BoC 2007a). The BoC stated that the Term PRA was "part of its continuing provision of liquidity in support of the efficient functioning of financial markets" and that the need for additional facilities would "be reviewed in light of conditions in the money market" (BoC 2007a). The Bank of Japan and Sweden's Riksbank also issued coordinated statements of support. In addition, the BoC's reintroduction of the Term PRA facility on March 11, 2008, was coordinated with similar communications from other central banks (BoC 2008a).

Details such as the auction date, settlement amount, settlement date, and maturity date were announced through press releases (BoC 2007a; BoC 2009a). After each auction, the BoC only provided limited transaction details: the high, low, and average yields accepted (BoC 2007b).

18. Disclosure: The BoC did not disclose information about individual participants in the Term PRA facility.

The total amount of assets acquired on any day through Term PRA operations was announced on the Bank's website at 4:45pm and reported on the BoC's balance sheet (BoC 2007a). The BoC also published aggregate values of lending through its facilities on a monthly basis but did not reveal details about how much funding individual recipients received or what securities they pledged as collateral (Macdonald 2012).

19. Stigma Strategy: There was no explicit stigma strategy for the Term PRA facility, but the auction structure and lack of individual disclosure likely lessened the possibility of stigma.

Individual participants under the Term PRA were not identified and information published by the BoC was on an aggregate basis, possibly limiting stigma concerns by counterparties (Macdonald 2012). At the start, the high participation in Term PRA auctions indicated that it did not suffer from stigma, as 70% of counterparties eligible for each auction placed a bid. However, this rate slowly declined as market pricing returned to normal and institutions found alternate sources of financing (Zorn, Wilkins, and Engert 2009). The Term PRA facility functioned in contrast with Emergency Lending Assistance, which faced stigma from market participants (Longworth 2010).

20. Exit Strategy: The BoC exited Term PRA agreements by announcing that it would not renew maturing Term PRAs.

The two auctions held in December 2007, during the first iteration of the Term PRA facility, were designed as a one-time end-of-year liquidity measure; these were not renewed (BoC 2013b). Two months after launching the second interaction in March 2008, the BoC

announced that it would no longer renew Term PRA funding. In September 2009, one year after the facility was activated for the third time, the BoC decided to reduce the frequency and size of Term PRA auctions (Zorn, Wilkins, and Engert 2009). Finally, the BoC announced on April 20, 2010, that the Term PRA facility would close immediately; the final remaining operation matured on July 21, 2010 (BoC 2013b).

References and Key Program Documents

Documents cited in the text are introduced with a parenthetical author-date citation. Documents that are relevant to this case but have not been cited in text do not include this parenthetical reference.

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