Japan's Special Funds-Supplying Operations (Japan GFC)

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Japan: Special Funds-Supplying Operations

Alec Buchholtz

Yale Program on Financial Stability Case Study
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Abstract

Following the collapse of Lehman Brothers in September 2008, the global commercial paper (CP) market began to tighten as interest rates rose and investors sought more-liquid money market securities. The Bank of Japan (BOJ) introduced several measures in late 2008 to make liquidity available to nonfinancial corporations that were strapped for cash. In December 2008, the BOJ implemented special funds-supplying operations in order to provide unlimited liquidity to banks and other financial institutions so they could continue to fund nonfinancial corporations. The BOJ would provide one- to three-month loans against an equal value of eligible corporate debt at a rate equal to the target uncollateralized overnight call rate, which was consistently 0.1% throughout the operation’s lifetime. The short-term credit market gradually improved over the next year amidst consistent usage of the special operations. Approximately ¥38 trillion in loans were provided before the special operations ceased in March 2010. The special operations are viewed as relatively successful, as they contributed to shrinking CP spreads during the first few months of implementation and promoted new issuances of CP and other corporate debt.

Keywords: commercial paper, special operations, short-term financing, loans, Bank of Japan, Japan

1 This case study is part of Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering the responses to the global financial crisis that pertain to market liquidity programs.

Cases are available from the Journal of Financial Crises at https://elischolar.library.yale.edu/journal-of-financial-crises/.

2 Alec Buchholtz – Research Associate, YPFS, Yale School of Management.
At a Glance

In 2008, Lehman Brothers’ bankruptcy disrupted short-term funding for nonfinancial companies, particularly through the commercial paper (CP) market. As CP markets tightened and investors turned to safer assets, investor demand for CP fell and interest rates on money market securities rose. The Bank of Japan (BOJ) introduced three facilities to promote liquidity in the commercial paper market. First, the BOJ enhanced its repo operations to cover a wider range of eligible collateral, including CP. The BOJ then introduced two new operations in December 2008: (1) special funds-supplying operations (the special operations), meant to facilitate short-term corporate financing, and (2) a measure to conduct outright purchases of CP, in which the BOJ would purchase three-month CP and asset-backed CP (ABCP), aimed at shifting credit risk from financial institutions to the BOJ.

The special operations became active on January 8, 2009, with an initial expiration date of March 31, 2009. Under the special operations, the BOJ could auction loans to financial institutions, providing an unlimited amount of liquidity. Loan amounts were equal to the value of corporate debt instruments by participating counterparties. Under the terms and conditions, collateral that the BOJ deemed eligible included corporate debt, CP, and other bills or deeds for companies, with a residual maturity of between one month and three months. When loan payments were due at maturity, counterparties had to repay the principal loan amount, in addition to a fee equal to the average of the target uncollateralized overnight call rate, determined monthly by the BOJ Monetary Policy Board.

The BOJ extended the measure three times: once until September 30, again until December 31, and lastly until March 31, 2010. The special operations were also amended to provide loans only up to three months and to not include ABCP as eligible collateral. Throughout 2009 and into early 2010, the BOJ loaned an aggregate amount of approximately ¥38 trillion to counterparties against eligible collateral under the special operations.

Summary Evaluation

One BOJ analysis found that the special operations, partly in conjunction with the measure to purchase CP outright, greatly contributed to a decrease in interest rate spreads on CP in Japanese markets during the first four months of 2009. The BOJ paper also observed that issuance rates of CP increased during this time, suggesting that the CP market improved thanks to the effects of the special operations.
<table>
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<th><strong>Special Funds-Supplying Operations: Japan Context</strong></th>
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| **GDP (SAAR, Nominal GDP in LCU converted to USD)**   | $4,680.1 billion in 2007  
$5,321.2 billion in 2008 |
| **Source:** Bloomberg                                 |
| **GDP per capita (SAAR, Nominal GDP in LCU converted to USD)** | $35,275 in 2007  
$39,339 in 2008 |
| **Source:** Bloomberg                                 |
| **Sovereign credit rating (5-year senior debt)**     | As of Q4, 2007:  
Fitch: AA  
Moody’s: A1  
S&P: AA |
| **Source:** Bloomberg                                 |
| **Size of banking system**                           | $6,980.8 in total assets in 2007  
$8,301.60 in total assets in 2008 |
| **Source:** Bloomberg                                 |
| **Size of banking system as a percentage of GDP**    | 149.2% in 2007  
156.0% in 2008 |
| **Source:** Bloomberg                                 |
| **Size of banking system as a percentage of financial system** | Banking system assets equal to 50.2% of financial system in 2007  
Banking system assets equal to 52.1% of financial system in 2008 |
| **Source:** World Bank Global Financial Development Database |
| **5-bank concentration of banking system**           | 50.2% of total banking assets in 2007  
58.6% of total banking assets in [year of announcement] |
<table>
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<tr>
<th>Category</th>
<th>Description</th>
<th>Source</th>
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| **Foreign involvement in banking system** | 1% of total banking assets in 2007  
1% of total banking assets in 2008 | *Source: World Bank Global Financial Development Database*               |
| **Existence of deposit insurance**    | Data not available for 2007/2008                                            | *Source: World Bank Deposit Insurance Dataset*                          |
I. Overview

Background

Early in the 2007-09 financial crisis, Japan’s economy was relatively stable, withstanding spillover effects from the housing crisis in the United States and the deteriorating conditions in Europe. However, after Lehman Brothers declared bankruptcy in September 2008, investors saw nonfinancial corporate debt as increasingly risky (Komine 2009). Unlike the commercial paper (CP) market in the United States, where most borrowers were banks, financial companies, or asset-backed CP (ABCP) sponsors, nearly two-thirds of issuers in the Japanese CP market were nonfinancial corporations. For that reason, the deterioration in Japan’s CP market hit these corporations particularly hard (BOJ Market Report 2008, p. 24).

The Bank of Japan (BOJ), seeking to stabilize its commercial paper market and facilitate financing for nonfinancial corporations, cut interest rates in November 2008 and January 2009, and implemented a variety of special market operations (BOJ Market Report 2008, p. 24). First, the BOJ expanded the frequency and size of its operations to purchase commercial paper (CP) with repurchase agreements (BOJ Decision, December 2008). Next, on January 8, 2009, the BOJ implemented special funds-supplying operations (the special operations) aimed to provide banks and other financial institutions with unlimited liquidity against eligible corporate debt pledged as collateral (BOJ Decision, December 2008).

In late January 2009, the BOJ also introduced a ¥3 trillion measure to conduct outright purchases of CP (Outright Purchases of CP 2009). To read more about the expansion of repo operations and other CP measures undertaken by the BOJ, please refer to Appendix A or Buchholtz 2018.

Program Description

The special operations had an objective “...of ensuring stability in financial markets as well as facilitating corporate financing by conducting appropriate money market operations,” using open market operations to provide unlimited loans against the value of corporate debt pledged as eligible collateral” (Special Operations 2009). Initially, the loan duration was between one and three months, the period determined by the BOJ (Special Operations 2009).

The special operations allowed the BOJ to provide counterparties with loans at an unlimited amount, but equal in value to the eligible collateral pledged by the counterparty (Special Operations 2009). Eligible collateral under the special operations included corporate debt in the form of corporate bonds, most types of CP (excluding ABCP), bills drawn by companies, and loans on deeds to companies (Special Operations 2009). The loans, which were electronically transferred from the BOJ to the counterparty, came with an interest rate equal to the “average of the target for the uncollateralized overnight call rate,” which throughout the lifetime of the special operations was kept at 0.1% by the BOJ Policy Board (Special Operations 2009).

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3 The government also channeled support to the business sector through the Shoko Chukin Bank and the Development Bank of Japan, which was specifically authorized to purchase up to ¥2 trillion of CP.

4 At the time, the Japanese financial system was in the process of transitioning from physical certificates to electronic transactions, a process described as “dematerialization.” Both physical and electronic transactions were allowed under the outright purchase program (JASDEC 2008).
Outcomes

The BOJ announced that the special operations became effective on January 8, 2009, with the first operation occurring the same day. The BOJ Policy Board amended a variety of terms under the special operations within the first few months of enactment. In January, the BOJ amended the terms to exclude commercial paper issued by real estate investment corporations from consideration as eligible collateral against the loans, at the same time announcing that it would begin to accept real estate investment corporation securities as collateral in the CP repo program (BOJ Amendment, January 2009).

In February, the BOJ increased the frequency of loan auctions from twice a month to once per week and extended the term of each loan to three months (BOJ Amendment, February 2009). The BOJ extended the duration of the special operations three times: once until September 30, again until December 31, and lastly until March 31, 2010. Also, the BOJ amended the special operations to extend all loans to three-month terms (Special Operations Modifications 2009).

The BOJ conducted its final operation on March 24, 2010, bringing the aggregate amount of loans provided over the special operations’ lifetime to approximately ¥38 trillion (BOJ Market Operations 2009, BOJ Market Operations 2010).

However, even though financial markets improved by this time, demand for the special operations remained high. Figure 1 shows the changes in loans provided at each auction on the left axis and the aggregate loan amount delivered on the right axis. While the amounts of all loans fluctuated auction-by-auction, as the graph shows, auction sizes would often noticeably increase at quarter ends.

Figure 1: Special Funds-Supplying Operations (January 2009 – March 2010)

Note: Data for December 29, 2009, auction is missing.


In December 2009, the BOJ introduced a fixed-rate funds-supplying operation (FSO) to further ease monetary conditions in the wake of the “Dubai Shock,” which affected U.S. and
Japanese stock markets (Shino 2011).\textsuperscript{5} The FSO was initially limited to providing an aggregate of ¥10 trillion in three-month loans against pooled collateral, by way of auction. When the special operations expired in March 2010, the BOJ expanded the FSO to continue to “encourage a decline in longer-term interest rates” by raising the outstanding loan amount to ¥20 trillion, increasing the frequency of operations to twice a week, and introducing six-month loans, in addition to the three-month loans (Shino 2011).

II. Key Design Decisions

1. The BOJ introduced special operations to ease capital constraints on financial institutions and improve access to funding for nonfinancial companies.

Under the special operations’ terms and conditions, the purposes of the operation were to “facilitate corporate financing” by conducting money market operations and to ensure stability in financial markets (Special Operations 2009). Another aim was to put downward pressure on short-term lending rates in Japan (OECD 2009).

During the BOJ’s Monetary Policy Meeting in November 2008, members of the Policy Board stated that strained financial markets and the deteriorating funding environment had played a significant role in decreased issuances and widening spreads on CP and corporate bonds since September (BOJ Minutes, November 2008). Because the funding environment for nonfinancial corporations was “less accommodative,” members suggested implementing a measure to provide liquidity to support them (BOJ Minutes, November 2008). Such measures, BOJ Board members said, should include altering the types of corporate debt eligible as collateral against BOJ loans and should expand existing funds-supplying operations collateralized by that debt.

The special operations were launched under Article 33/37/38, Bank of Japan Act 1997.

2. The BOJ could provide an unlimited amount of loans to selected counterparties.

The only limitation on loans to a financial institutions was the total value of corporate debt a financial institution held that it could pledge as collateral (Special Operations 2009).

3. The program could lend to financial institutions that were counterparties of the Bank of Japan.

Eligible counterparties were already counterparties in the BOJ’s open market operations. They included banks and other financial institutions, financial instrument firms, securities finance companies, and tanshi (broker) companies. The financial institutions and banks that could be eligible as a counterparty under the special operations were those listed

\textsuperscript{5} In November 2009, Dubai World, one of Dubai’s largest state-owned companies, announced that it would seek a six-month reprieve of about $4 billion in debt payments. The standstill was found to be linked directly to payments on a $4 billion Islamic bond issued by Dubai World’s property group, Nakheel. The announcement was met with significant drops across global stock markets. (Financial Times NA 11/25/2009)
under Article 37 of the Bank of Japan Act 1997, with some exclusions as defined in the terms and conditions (Special Operations 2009).6

Also, the BOJ decided to add to the list of its counterparties the Development Bank of Japan, which had been privatized in October 2008 but retained access to government funds and a mandate to support the government crisis response, with a focus on funding large and medium-sized nonfinancial corporations. The Development Bank began outright purchases of CP in December, at the request of the government. The BOJ also added the bank to its list of open market counterparties and, specifically, to its CP repo program (Bank of Japan, January 27, 2008).

4. The amount of a loan would be equal to the discounted value of eligible collateral pledged by counterparties.

The prices of eligible collateral were calculated using the formula set forth by the BOJ, p. Different margins for each eligible collateral were dependent upon its residual maturity. Additionally, the margins could be adjusted when necessary to ensure consistency in the margin table as a whole in light of creditworthiness and marketability of the collateral (Guidelines on Eligible Collateral 2000).

5. Collateral eligible to be submitted by counterparties included a range of corporate debt.

Initially, the measure allowed the BOJ to purchase a range of corporate debt, which included different types of CP (Special Operations 2009).

However, the BOJ excluded specifically accepting asset-backed commercial paper, and then, excluded CP issued by real estate investment corporations, at the same time announcing that it would begin to accept real estate investment corporation securities as collateral in the CP repo program (BOJ Amendment, January 2009).

6. The loans were provided at a low fixed rate, equal to the average of the target uncollateralized overnight call rate.

No details on motivation behind this design was found.

7. Initially, the special operations would provide one- to three-month loans. Later, the BOJ amended the operations to provide only three-month loans.

The BOJ would determine the duration of loans under the special operations for each counterparty, limiting loans to be between one and three months.

8. Initially, auctions were to be conducted twice a month. The BOJ later increased the frequency to once a week.

6 Financial institutions are defined in Article 37, Paragraph 1 of the Bank of Japan Act, Act No. 89, 1997. Eligible financial instrument firms, securities finance companies, and tanshi companies are defined in Article 10, Paragraph 1, Clauses 2-4. Eligible instruments are defined in Article 28, Paragraph 1 of the Financial Instruments and Exchange Act, Act No. 25, 1948. The program excluded bridge banks. (Principle Terms and Conditions for Outright Purchases of CP 2009).
No details on motivation behind this design was found.

9. Initially, the special operations were set to expire on March 31, 2009. The BOJ extended the expiration date of the special operations multiple times.

No details on motivation behind this design was found.

III. Evaluation

According to an analysis by Hirose and Ohyama, the special operations significantly contributed to reducing CP issue rates during the first four months of operation (Hirose and Ohyama 2010). While CP rate spreads in Japan were increasing in late 2008, the coordination of implementing the outright purchase measure and special operations helped decrease CP rate spreads in January and February of 2009. However, the study finds that only the special operations, not the outright purchase measure or repo operations, contributed to decreased rates in March, April, and May (Hirose and Ohyama 2010).

One cause of this may have been that the special operations were viewed as the least expensive of the three CP measures taken by the BOJ due to their low fixed rate—the BOJ maintained a 0.1% rate throughout the special operations’ lifetime. The low cost, in addition to an improving CP market in Japan, may have provided institutions the ability to submit better collateral against these loans. The BOJ believed that outside of extending the special operation’s lifetime, any other amendments to the operation might have had a negative impact on financial markets by increasing volatility (Mizuno 2009). According to one speech, it was the BOJ’s view that the special operations had greatly contributed to changing interest rates on CP. Moreover, if institutions chose to rely more on the special operations rather than other monetary measures, it would disrupt the market greatly and damage financing operations once the special operations expired (Mizuno 2009).

IV. References


V. Key Program Documents

Summary of Program

Principal Terms and Conditions for the Special Funds-Supplying Operations to Facilitate Corporate Financing (Bank of Japan — 12/19/2008) – Principal terms of the special funds-supplying operations included providing selected counterparties unlimited loans in the form of auctions, but only up to the value of posted collateral. Loans initially had a duration of between one and three months and were to be repaid with a rate equal to the uncollateralized overnight call rate.

https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Principal%20Terms%20and%20Conditions%20of%20Special%20Funds-Supplying%20Operations%20to%20Facilitate%20Corporate%20Financing%20(Invalid)%20%E6%97%A5%E6%9C%AC%E9%8A%80%E8%A1%8C%20Bank%20of%20Japan.pdf.

Implementation Documents

Guidelines on Eligible Collateral (Bank of Japan) – The Bank of Japan Policy Board prescribes a set of guidelines that the Bank of Japan follows to conduct monetary and currency operations, where collateral is accepted only if creditworthy and marketable.

https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/Guidelines%20on%20Eligible%20Collateral%20%E6%97%A5%E6%9C%AC%E9%8A%80%E8%A1%8C%20Bank%20of%20Japan.pdf.

Minutes of the Monetary Policy Meeting on November 20 and 21, 2008 (Bank of Japan – 12/25/2008) – The Bank of Japan Policy Board introduced the special funds-supplying operations as a response to strained credit markets that aimed to facilitate corporate financing.

https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/BoJ_Minutes_11-20-21-08.pdf.

Minutes of the Monetary Policy Meeting on December 18 and 19, 2008 (Bank of Japan – 01/27/2008) – The Bank of Japan Policy Board introduced the principal terms and conditions of the special funds-supplying operations.


Minutes of the Monetary Policy Meeting on January 21 and January 22, 2009 (Bank of Japan – 02/24/2009) – The Bank of Japan Policy Board passed a vote to amend the eligible collateral under the special funds-supplying operations.

https://ypfsresourcelibrary.blob.core.windows.net/fcic/YPFS/BoJ_Minutes_01-21-22-09.pdf.

Principal Terms and Conditions for the Special Funds-Supplying Operations to Facilitate Corporate Financing (Bank of Japan – 12/19/2008) – Principal terms of the special funds-supplying operations included providing selected counterparties unlimited loans in the form of auctions, but only up to the value of posted collateral. Loans initially had a duration of between one and three months and were to be repaid with a rate equal to the uncollateralized overnight call rate.  

Legal/Regulatory Guidance

Article 37 of the Bank of Japan Act 1997 – Article 37 of the Bank of Japan Act 1997 states that the Bank may provide financial institutions uncollateralized loans and when the institutions “unexpectedly experience a temporary shortage of funds necessary for payment due to accidental causes.”

Press Releases/Announcements

Statement on Monetary Policy (Bank of Japan – 11/21/2008) – The Bank of Japan announced that it would create a special funds-supplying operation to provide unlimited loans for liquidity purposes to eligible financial institutions and banks in Japan.

Media Stories

Bank of Japan may reportedly double lending program (MarketWatch – 03/11/2010) – News story mentioning that the special operations lending facility will be expiring on March 31, 2010, while an expansion of the new fixed-rate funds-supplying operation is being considered by the Bank of Japan.

BOJ meets as economy in worst slump since 1970s (MarketWatch – 02/16/2009) – News story discussing an upcoming BOJ Policy Board meeting where the BOJ wanted to seek “extraordinary” measures to assist credit-tight companies and alleviate financing conditions across Japanese markets. The Japanese media states that the demand has been strong for the loans.
Key Academic Papers

Government, Business and Markets after the Lehman Shock: A Review of Aid to the Business Sector in Japan (Komine 2009) – This paper summarizes the effects of Lehman Brothers’ bankruptcy and other economic events in the United States on Japan’s economy and marketplace. The author reflects on the increase in state intervention to maintain financial stability and the advantages or disadvantages that using state intervention has on the market. https://ypfsresourcelibrary.blob.core.windows.net/ypic/YPFS/Komine_2009.pdf.

Reports/Assessments

The Conduct of Monetary Policy in Japan and Abroad: Excerpts of a Speech at a Meeting with Business Leaders in Okayama (Bank of Japan – 08/2009) – In a speech, the Bank of Japan Governor said that the Bank decided to extend the outright purchases on commercial paper because although the commercial paper market has been recovering greatly, financial firms hoped the operation would still be in use to “facilitate corporate financing,” in case of any imminent debt downgrades or credit slides. https://ypfsresourcelibrary.blob.core.windows.net/ypic/YPFS/Mizuno_2009.pdf.

Financial Markets Report – Developments in the First Half of 2009 (Bank of Japan – 08/31/2009) – An analysis by the Bank of Japan found that CP operations have contributed to a decrease in issuance rates, but that effects on CP rated a-1 were greater than CP rated a-1+ or lower. https://ypfsresourcelibrary.blob.core.windows.net/ypic/YPFS/Boj%20Financial%20Markets%20Report%20August%202009.pdf.


VI. Appendix

Because of the weakening commercial paper market throughout the global economy, Japan’s commercial paper market was hit heavily in late September 2008, following the Lehman Brothers bankruptcy. In response to the spreading financial crisis, the Bank of Japan’s Policy Board issued a number of operations to alleviate the commercial paper (CP) market.

First, the BOJ expanded the conditions for the pre-existing repurchase operations for CP to facilitate short-term money market financing for financial institutions as a response to the credit crunch (CP Repo Operations). The BOJ increased the frequency of the operations from being conducted on a quarterly basis to twice a week, while also increasing the fund supply per operation from ¥300 billion to ¥600 billion (BOJ Markets Report, March 2009).
Moreover, the BOJ expanded eligible loan collateral to include dematerialized CP issued by real estate investment corporations and government-guaranteed dematerialized CP (BOJ Amendment, January 2009).

In early November, the BOJ introduced special funds-supplying operations (the special operations) that would provide unlimited liquidity in exchange for an equal amount of commercial paper collateral from financial institutions (Special Operations 2009). The special operations provided a one- to three-month loan at a low fixed loan rate equal to the average uncollateralized overnight call rate. The value of the loan would be equal to the value of collateral posted by the participating counterparty. Collateral that was eligible to be posted against a loan included corporate bonds, dematerialized CP issued by domestic corporations, dematerialized CP issued by foreign corporates with guarantees, bills drawn by companies, commercial paper (excluding ABCP and, later, CP issued by real estate investment corporations), and loans on deeds to companies (Special Operations 2009).

Finally, the BOJ passed a measure to conduct outright purchases of CP from financial institutions, aiming to transfer some of the risk from bank balance sheets onto the BOJ’s own sheet (Outright Purchases of CP 2009). The decrease in risky CP would help institutions avoid credit downgrades, thus allowing them to continue borrowing liquidity in the general credit market in order to meet financing needs. However, the amount of CP the BOJ could buy was limited to ¥3 trillion overall, limited to ¥300 billion per auction date, and limited to ¥100 billion per issuer per auction (Outright Purchases of CP 2009). Moreover, the purchases included an interest rate equal to the overnight call rate plus a penalty rate, making the outright purchases of CP the most expensive of the three CP operations (Outright Purchases of CP 2009).