

The Central Bank and bank credits in the Philippines : a survey on effectiveness of monetary policy and its measures

著者	Kashiwabara Chie
権利	Copyrights 日本貿易振興機構 (ジェトロ) アジア 経済研究所 / Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO) http://www.ide.go.jp
journal or publication title	IDE Discussion Paper
volume	413
year	2013-03
URL	http://hdl.handle.net/2344/1265

IDE Discussion Papers are preliminary materials circulated to stimulate discussions and critical comments

IDE DISCUSSION PAPER No. 413

The Central Bank and Bank Credits in the Philippines: A Survey on Effectiveness of Monetary Policy and Its Measures

Chie KASHIWABARA*

March 2013

Abstract:

In the post-Asian crisis period, bank loans to the manufacturing sector have shown a slow recovery in the affected countries, unexceptionally in the Philippines. This paper provides a literacy survey on the effectiveness of the Central Bank's monetary policy and the responsiveness of the financial market, and discusses on the future works necessary to better understand the monetary policy effectiveness in the Philippines.

As the survey shows, most previous works focus on the correlation between the short-term policy rates and during the period of monetary tightening and relatively less interest in quantitative effectiveness. Future tasks would shed lights on (1) the asset side – other than loan outstanding – of banks to analyze their behavior/preference in structuring portfolios, and (2) the quantitative impacts during the monetary easing period.

Keywords: monetary policy measure, credit channel, bank loan

JEL classification: E42, E52, G38

* Director, Fiscal and Financial Policy Study Group, Development Studies Center, IDE
(chie_kashiwabara@ide.go.jp)

The Institute of Developing Economies (IDE) is a semigovernmental, nonpartisan, nonprofit research institute, founded in 1958. The Institute merged with the Japan External Trade Organization (JETRO) on July 1, 1998. The Institute conducts basic and comprehensive studies on economic and related affairs in all developing countries and regions, including Asia, the Middle East, Africa, Latin America, Oceania, and Eastern Europe.

The views expressed in this publication are those of the author(s). Publication does not imply endorsement by the Institute of Developing Economies of any of the views expressed within.

INSTITUTE OF DEVELOPING ECONOMIES (IDE), JETRO
3-2-2, WAKABA, MIHAMA-KU, CHIBA-SHI
CHIBA 261-8545, JAPAN

©2013 by Institute of Developing Economies, JETRO

No part of this publication may be reproduced without the prior permission of the IDE-JETRO.

**The Central Bank and Bank Credits in the Philippines:
A Survey on Effectiveness of Monetary Policy and Its Measures¹**

Chie Kashiwabara

Abstract:

In the post-Asian crisis period, bank loans to the manufacturing sector have shown a slow recovery in the affected countries despite that the main external financing source is bank credits. The situation is unexceptionally the same in the Philippines. This paper provides a literature survey on the effectiveness of the Central Bank's monetary policy and the responsiveness of the financial markets, and discusses on the future works necessary to better understand the monetary policy effectiveness in the Philippines.

The survey shows that previous works mostly focus on the correlation between the short-term policy rates and the banks' interest rates during the period of monetary tightening, thus they are less interested in the financial sector's behaviors. On the other hand, the author finds other policy measures affect banks' asset structure including loans. Therefore, future studies needs to shed light on (1) the asset side – other than loan outstanding – of banks to analyze the behavior in structuring their portfolios, and (2) the quantitative impacts during the monetary easing period.

Keywords: monetary policy measure, credit channel, bank loan

JEL classification: E42, E52, G38

¹ The paper is prepared for the research project “Monetary Policy Infrastructure and the Policy Responses in the Southeast Asian Developing Countries” as an interim/preliminary study, supported by the Grant-in-Aid for Scientific Research of Japan Society for Promotion of Science, for the FY 2012-2014.

1. Introduction

One of the common features in the Southeast Asian financial sectors in the post-Asian currency/financial crisis period is a sluggish recovery of bank credits to the industrial sector, especially to the manufacturing. The manufacturing sector has been the main driving force of economic development in the region. Similar situation can be observed in the Philippines, where the influence of the Asian crisis and the recent global recession has been deemed moderate compared with the neighboring economies.

As a recent example, the then-Arroyo administration (2004-2010) took a series of monetary easing in 2009 to stimulate lending to the export industries under the Economic Resiliency Plan at the onset of the global recession. Major measures applied were the interest rate (overnight lending rate in the interbank market) cuts three times a year totaled by 2 percentage points to the historically low level since 1992, and increasing of the BSP's rediscounting resources. However, loans outstanding to the manufacturing sector had decreased from PhP392.8 billion in December 2009 to PhP327.0 billion in December 2010 even though the total loans outstanding increased from PhP1,748.2 billion to PhP1,921.7 billion during the same period.

Therefore, to better understand the Philippines' monetary policy infrastructure and its effectiveness, it is necessary to review the policy setting and previous works on the BSP's monetary policy, and also to discuss about the additional data and/or its correlations regarding BSP's monetary policy changes. This paper aims to find some discussion clues to the following questions: How the BSP has reviewed and assessed its own policy measures? On what effects in the economy has the BSP put importance? What are missed or less weighed in analyzing the policy effectiveness? The rest of the paper is organized as follows: the next section briefs BSP's mandate and its policy measures under the New Central Bank Act, considering Philippines' industrial structure and economic setting; section 3 provides a literature survey on the BSP's monetary policy measures and effectiveness of its credit channel; section 4 summarizes the survey and extends discussions to improve analyzing the bank behavior – providing loans, choosing asset portfolios, etc. – for a better understanding of corporate financing and industrial development in the Philippines.

2. Monetary Policy Measures and Its Infrastructure in the Philippines

2.1 Central Bank objectives and the legal/institutional framework

The Bangko Sentral ng Pilipinas (the central bank of the Philippines, thereafter the BSP) formally adopted inflation targeting as the framework for monetary policy in January 2002, when the Republic Act No. 7653 (the New Central Bank Act, thereafter RA 7653) was enacted.

The policy move is aimed at providing the BSP with a more focused approach in pursuit of its primary mandate, which is to promote price stability, i.e. a low and stable inflation, conducive to the country’s balanced and sustainable economic growth. Two intrinsic features of the approach – transparency and accountability in monetary policy – are as well expected to enhance the credibility of the BSP in helping create a stable macroeconomic environment in RA 7653.

This approach involves the announcement of an explicit inflation target to achieve over a given time period,² which is set and announced jointly by the BSP and the government through an inter-governmental agency body, the Monetary Board. Although the responsibility of achieving the target rests primarily with the BSP, this joint announcement reflects active government participation in achieving the goal of price stability and government ownership of the inflation target. Under RA 7653, the BSP created an Advisory Committee which deliberates, discusses and recommends to the Monetary Board the appropriate monetary policy stance that will enable the BSP to achieve the desired inflation target. The Advisory Committee meets every six weeks (eight times a year).

2.2 Policy measures

Similar to the central banks in other countries, the BSP adopts the interest rates applied on the overnight Repurchase Agreements (RPs) and Reverse Repurchase Agreement (RRPs) through open market operations (OMO) as a signal of BSP’s stance on monetary policy. At the same time, the BSP implements monetary policy using direct and indirect instruments to influence the level of liquidity in the market and thereby achieve inflation to the target level. These instruments can be classified into four types: open market operations, acceptance of fixed-term deposits (Special Deposit Account: SDA), standing facilities (rediscounting and BSP loans), reserve requirements, and moral suasion (see Table 1).

Table 1: BSP Policy Measures

Direct Measures	Quantitative and/or Price Signals	Reserve requirements
		Rediscounting and BSP loans
		Acceptance of SDA
	Oral advice	Moral suasion
Indirect Measures	Open market operations (RPs and RRP)	

Source) BSP website.

² Consistent with the inflation targeting framework, the Monetary Board announced in July 2010 the BSP’s shift to a fixed inflation target for the medium term of three years (currently for 2012-2014, 3-5 percent), approved by the Development Budget Coordination Committee (DBCC) on 9 July 2010 under DBCC Resolution No. 2010-3.

Direct instruments: Those enable the BSP to directly control certain items in banks' balance sheets, which may be in the form of financial prices or quantities and at the same time, have a strong coercive element. First, reserve requirements, which refer to the percentage of bank deposits and deposit substitute liabilities that banks must keep on hand or in deposits with the BSP, have a significant effect on money supply in the banking system. Those are applied to peso demand, savings, time deposit and deposit substitutes (including long-term non-negotiable tax-exempt certificates of time deposits: LTNCTDs) of universal and commercial banks, in the form of cash in vault, deposits with the BSP and government securities. To correct banks' reserve requirements, call money are traded in the interbank call loan market that correspond to the excess or deficiency of each bank in terms of reserves. As the reserve position of each bank or quasi-bank is calculated on the daily basis, these can be overnight placements. The interbank market can either be securitized (collateralized) or unsecuritized (clean) lendings/borrowings, as well as repurchase agreements. Repurchase Agreements (RPs) are generally short-term sale of government securities with an agreement to repurchase on the agreed maturity date through credit lines with its counterparties for these transactions.

Secondly, in order to influence the credit volume in the financial system and help banks meet temporary liquidity needs, the BSP applies rediscounting as a standing credit facility to qualified banks. It allows those banks to refinance the loans they extend to their clients, by borrowing money from the BSP using promissory notes and other loan papers as collateral. In addition to the peso rediscounting facility, the BSP introduced the Exporters' Dollar and Yen Rediscounting Facility in 1995.

Third, the BSP also accepts deposits from banks. The Special Deposit Account (SDA) facility functions as fixed-term deposits by financial institutions with the BSP, introduced in November 1998 to expand BSP's instruments in liquidity management. In April 2007, especially for a better controlling of strong foreign exchange inflows, the BSP allowed trust entities to deposit in the SDA facility.

Fourth, the BSP can employ moral suasion as a last resort when existing market mechanisms cannot adequately and promptly ensure the attainment of specific monetary objectives. This suasion has been employed for BSP's guidance other than its monetary policy as well.

Indirect instruments: Indirect instruments include adjustment in short-term policy interest rates and the conduct of OMOs of the government securities³. It involves the BSP publicly

³ Unlike some cases in other countries, RA 7653 does not allow the BSP to issue any type of "the central bank bond/note," due to the past experience that the old central bank had financed the central government's deficits by issuing notes and bills under the Marcos administration.

buying or selling government securities from banks and financial institutions in order to expand or contract the supply of money. When the BSP buys securities, it pays for them by directly crediting its counterparty's Demand Deposit Account (DDA), maintained with the BSP. Effectively, the transaction increases the buyer's level of reserves and on an aggregate level, expands the system's money supply. Conversely, when the BSP sells the securities, the buyer's payment (via direct debit against the buyer's DDA) reduces its reserve account causing money supply to contract. In conducting OMO, the BSP uses two instruments: (1) repurchase (repo)/reverse repurchase (reverse repo) agreements (RPs and RRP), and (2) outright purchases and sales of securities.

The BSP defines OMO as the most practical tool among its policy measures with the reasons of OMO's greater flexibility in terms of the amount and timing of intervention and quick results which OMO yields. Any change in the policy rates is readily implemented, i.e., on the same day that the Monetary Board makes the resolution, thus any effect on the market becomes evident. On the other hand, as all OMO is undertaken only with the government securities, the BSP needs to manage the credit risk of eligible securities. Those securities are valued based on their current market yields as well as the applicable cut based on remaining life of securities involved. To avoid exposing the BSP to undue risks arising from purchases of securities, Section 91, Article V of RA 7653 sets the type of securities that can be used in OMO transactions as follows: (1) with evidences of indebtedness issued by the central government or by its political subdivisions; and (2) with evidences of indebtedness issued by government instrumentalities and fully guaranteed by the central government. As well, Section 92 of Article V also provides the BSP with effective instruments for OMO. The BSP may issue, place, buy and sell freely negotiable evidences of indebtedness of the BSP, subject to such rules and regulations as the Monetary Board may prescribe and in accordance with the principles stated in Section 90. However, such issuance shall be made only in cases of extraordinary movement in price levels. Said evidences of indebtedness may be issued directly against the international reserves of the BSP or against securities.

3. A Survey of Previous Works on the Effectiveness of BSP's Policy Measures

Literature on the monetary policy mechanism in the Philippines has not been abundant, except for the studies conducted by the BSP economists and some Philippine academics. With

Thus, all RP/RRP transactions today are conducted with the Treasury notes and bills issued by the Bureau of Treasury (BTr), Department of Finance, the central government of the Philippines.

the methodologies and models applied to the cases in developed countries (see, e.g., Bernanke, Lauback, Mishkin and Posen [1999], Bernanke and Gertler [1995], Mishkin [1996], Mishkin and Posen [1997], Bayoumi and Melander [2008]), their main interest is deemed to exist on to what extent and how long a monetary policy tightening affects domestic economic activities. Based on the main analysis scope and objectives of the previous works, this section deals with three major objectives as the following: BSP's monetary policy change and responsiveness of the credit markets, the relations between monetary policy and exchange rate, and the changes in profitability of the banking sector.

3.1 Impacts of BSP's monetary policy and responsiveness of the credit markets

Applying a series of vector auto-regression (VAR) methodologies, Pobre [2003] analyzes the responsiveness and magnitude of the interest rates, the outputs and the credit market conditions in South Korea, Thailand and the Philippines caused by policy shocks (monetary tightening) from the first quarter 1981 to the third quarter 2000. It finds out that in the Philippines, (1) tighter conditions (higher lending rate) in the credit market persist longer, and (2) the external finance premium (interest-rate premiums to the private sector) is higher. These findings suggest that, in the Philippines, risk perception by banks plays a more crucial role in influencing their willingness to supply credit than a policy shock itself. Dakila and Claveria [2006] also applies the VAR to verify shifts in the direction of causality – from T-bill rate in the secondary market to RRP/ERRP (effective RRP) to the opposite – in the pre- and post-inflation targeting period January 2000 to March 2006. The study concludes that BSP's policy rate is the most significant determinant of the T-bill rate over the very near term thus the BSP retains its capability to influence market interest rates through adjustment of the policy rate.

Another study also confirms a monetary shock influence on the domestic output and investments persists longer. Dakila and Paraso [2005] uses a vector error correlation (VER) model, concentrating on the interest rate channel, to validate the results of BSP's monetary policy during the period of 1987 and the first quarter of 2003. The paper finds that the negative impacts (decrease in the aggregate) on investments and GDP growth last longer than that on the short-term interest rate (the 91-day T-bill rate) due to a policy change.

On the other hand, some are focusing on changes on the aggregate of credit to the private sector. For example, with a similar methodology to Pobre [2003] and Bayoumi and Melander [2008], Bayangos [2010a] conducts co-efficiency analyses among a raising of overnight RRP rate due to expectations of increasing inflation, real bank lending rate and aggregate of credit to the private sector and real output, etc., through the changes in the short-term rate (the 91-day T-bill) from March 1999 to December 2010. It finds a one-percentage-point rise in overnight RRP causes 0.25 percentage-point change in the 91-day T-bill rate, then a change in the real bank lending rate (0.15 percentage point) after a quarter, but the impact on the bank lending rate

expands to 0.27 percentage point and stays longer than that on the T-bill rate in the long run. Contrary to the changes in T-bill and bank lending rates co-efficiency to the overnight RRP rate, that of the aggregate credit shows a mixed result.

With a different scope applying partial equilibrium analysis, Tuano-Amador, Glindro and Claveria [2009] analyzes the relative strength of the monetary policy transmission channels to the private sector lending in the pre- and post-inflation targeting period during January 1995-January 2008. It finds that the impact of policy rate adjustments on the real economy appears to work quite strongly via OMO throughout the examined period, and a gradual strength increase in the interest rate pass-through and in the bank lending channels since the inflation targeting was introduced. On the contrary, the paper finds the exchange rate pass-through has gone down during the inflation targeting period of 2002-2009. Thus the paper concludes that the interest rate and bank lending channels need to be strengthened.

3.2 Stability of the exchange rate and monetary/exchange rate policies

The past Philippine administrations have liberalized its financial regulations since 1994 and adopted the floating rate system, and another challenge for the BSP to promote and maintain price stability is closely related to managing the peso exchange rate. Like other emerging/developing economies, the peso exchange rate plays an important role in the Philippines' economy through the trade channel.

Glindro and Estigoy [2006] uses the Vector Error Correction (VEC) approach to analyze the exchange rate and interest rate differential (the Philippine 91-day T-bill and five-year T-bond rates) dynamics to validate the uncovered interest rate parity (UIRP) condition,⁴ in the period of 2001-2005. To include the notion in Bautista [2006], which emphasizes regime shifts in exchange rate policy among developing countries affected by the Asian crisis were the norm, the paper added other ASEAN5 (Indonesia, Malaysia, Singapore, Thailand) data in addition to the US T-bill/bond rate and LIBOR for comparison. The paper's results generally show that interest rate differentials respond more strongly to shocks on the exchange rate by steeper response of short-term interest rate, and large interest rate differentials have stronger forecasting power for currency movement than small differentials. Though the analysis direction is opposite each other, Glindro and Estigoy [2006] and Tuano-Amador, Glindro and Claveria [2009] show different results.⁵ This may be caused by the difference in the analyzed periods or that of data

⁴ The UIRP condition posits that a country should expect its exchange rate to depreciate when the nominal interest rate differential widens.

⁵ Glindro and Estigoy [2006] explains the paucity of data is due to that of long-run Philippine Treasury rate data, which incidentally capture the policy shift to inflation targeting framework. The choice of 2001 as the beginning date was because of the availability of a more complete

used, which needs more researches to be accumulated.

On the other hand, Yap [2009] discusses whether the BSP should include the exchange rate in its policy objectives or not. Showing the data of SDA outstanding accumulation in the latter 2000s and applying macroeconomic model, the paper analyzes the increase/decrease of BSP's credibility. The results indicate that incorporating the exchange rate in the reaction function improves BSP's credibility if the exchange rate is included in the objective function. Although most central banks with their major objective of inflation targeting and free-float exchange rate system, including the BSP, are reluctant to acknowledge that the exchange rate plays a direct role of its own monetary policy rule, the paper indicates that BSP intervention in the foreign exchange market is to some extent consistent with its inflation-targeting framework.

3.3 Profitability of the banking sector

Though not so many researches have been conducted, non-BSP economists have had interests on changes in the banking sector. Their major objective is to identify how the profitability of local banks has changed since the financial liberalization in the mid-1990s, which is backed by their recognition that the competition in the domestic credit market has been further heightened by foreign banks' new entrants to the market due to the financial sector reforms since the late 1990s.

Following Berger and Mester [1999], Dacanay III [2010] analyzes the evolution of cost and profit efficiency for Philippine commercial banks during the period of 1992-2004, and shows Philippine banks experienced a steady declining profit (by 6 percentage points) and rising cost efficiencies (by 13 percentage points) after the financial liberalization in 1994 to 2004. It also suggests that the banks may have opted for defensive strategies – the “quiet life” hypothesis – threatened by new foreign competitors' entrants in the domestic market, instead of reducing their costs. Some earlier studies show similar results: Karim [2001] reports an average of 34.1 percent cost inefficiency in the banking sector from 1989 to 1996, and Manlagnit and Lamberte [2004] explains an average profit inefficiency of 85 percent and cost inefficiency of 39 percent from 1990 to 2002. Considering the previous papers' results together, the evidence which shows the credit market competition was additionally increased by the financial sector reforms in the post-Asian financial period is not clear. There may be other factors that the local banks have opted for lower loans outstanding to the business sector, thus it requires analyses on the asset side of local banks to clarify if there exist other financial and non-financial instruments for their preference.

series of five-year Philippine T-bond rate.

4. Summary and Discussions for Future Works

4.1 Summary of the previous works

As seen in the section 3, major researches related to the BSP policy measures discuss about (1) the credit market responsiveness in the monetary tightening, and (2) the relation between exchange-rate stability and the policy rate change or interest rate disparity with the US T-bill rate. Summary of the results of (1) and (2) is wrapped up in Table 2. Based on the their findings, it is clear that loans to the private sector has been affected by BSP's financial tightening more strongly than the short-term government securities in terms of both increases in the interest rates and periods where higher rates persist.

Table 2: Summary of Researches on the BSP Policy Rate Change and Credit Channels

Objective of Analysis	Author(s)	Methodology	Findings
Credit market responsiveness	Pobre [2003]	VAR	Higher lending rate in the credit market persists longer, and the interest-rate premiums to the private sector become higher.
	Dakila and Claveria [2006]	VAR	BSP's policy rate is the most significant determinant of the T-bill rate over the very near term. The BSP retains its capability to influence market interest rates.
	Dakila and Paraso [2005]	VER	A policy rate hike influences the aggregate investments decrease and GDP growth last longer than the short-term interest rate (the 91-day T-bill rate).
	Bayangos [2010a]	VAR	A rise in overnight RRP causes a larger and longer rate increase in the real bank lending than the 91-day T-bill rate. Co-efficiency of the aggregate credit to the overnight RRP rate shows a mixed result.
	Tuano-Amador, Glindro and Claveria [2009]	Partial equilibrium	Impacts of policy rate adjustments on the real economy work strongly via OMO, and a gradual strength increase in the interest rate and bank lending channels.
Exchange rate and monetary/exchange rate policy	Glindro and Estigoy [2006]	VEC	Shorter interest rates respond more strongly and sharply to shocks on the exchange rate, and large interest rate differentials have stronger forecasting power for currency movement.
	Tuano-Amador, Glindro and Claveria [2009]	Partial equilibrium	The exchange rate channel has gone down during the inflation targeting period of 2002-2009.
	Yap [2009]	Macroeconometric	Incorporating the exchange rate in the reaction function improves BSP's policy credibility if the exchange rate is included in the objective function.

Another area is the changes in profitability of the local banking sector. Throughout the period of starting financial liberalization in 1994 to the post-Asian financial crisis era, Philippine banks have lost their profit efficiency continuously according to the previous researches. On the other hand, the reason(s) for the local banks' reluctance to provide credits to the private sector, especially the manufacturing, has not been clearly identified. To better explain the Philippines' slow recovery of bank lending/corporate financing in the post-Asian

crisis period, it is necessary to analyze the changes in each bank's asset structure and the possibility that some of BSP's monetary policy measures (described in the section 1) may influence on banks' resource allocation among account items. In the end, those analyses will be able to explain and assess the quantitative effectiveness of BSP's policy changes during monetary easing periods, especially since the late 2000s.

4.2 Some factors for further analyses

In this subsection, the outstanding trends of the SDA and banks' RRP arrangement are reviewed. The reason is those may afford collateral evidences to the banks' defensive strategies (the "quiet life" hypothesis) suggested in Dacanay III [2010], or enable to expand the discussions on BSP's policy measures effectiveness.

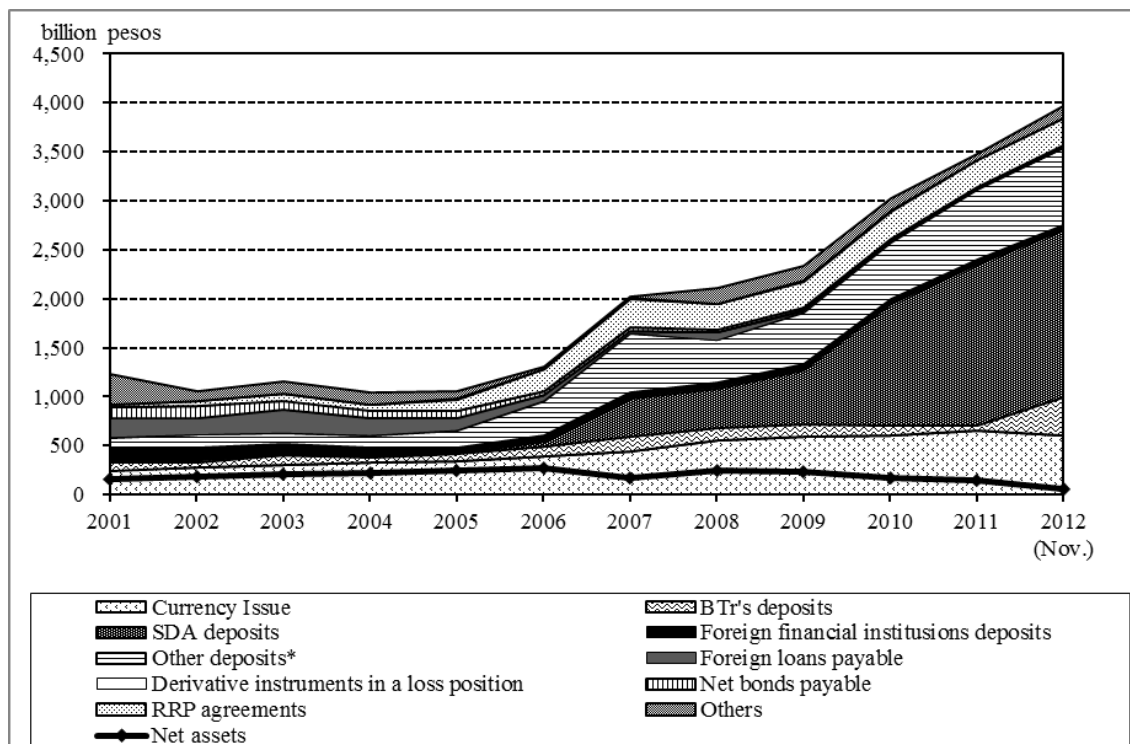
As described in the section 1, the SDA is one of BSP's alternative policy measures of OMO. It was introduced in 1998, and its interest rates had been relatively higher than those of the money and interbank markets. According to the BSP's asset and liability report, the SDA was not frequently used until mid-2006. In April 2007, especially for a better controlling of strong foreign exchange inflows, the BSP allowed trust entities and government-owned and -controlled corporations (GOCCs) to deposit in the SDA facility. In the next month, it also decided to allow banks to place cash in the SDA as an alternative to comply with the minimum liquidity requirements for government deposits.

Figure 1 shows the BSP's liabilities of 2001-2012 (end-year, except for 2012). Among the items, the SDA outstanding has drastically increased throughout the latter 2000s. Due to the surge of the SDA outstanding and accompanying concern that the SDA has been opted for instead of lending, in March 2008 the BSP decided to reorganize the SDA facility as follows: (1) closing of the 2, 3, and 6 month periods of depository, (2) lowering the interest rates of the rest tenors (shorter than 2-month periods). To date, the SDA outstanding equals to 24 percent of the total asset outstanding of the universal and commercial banks,⁶ and has grown the largest item in the BSP's liability side (40 percent of the total liabilities). Yap [2009: 266] defines the SDA since 2006 as an important tool for sterilization. It also refers some analysts' notion that the BSP's widening access to the SDA to trust entities and GOCCs intended to mop up excess liquidity and maintain inflation within the target levels.

The reference above partly explains the reason that the BSP relaxed access to the SDA facility, and seems to fit for analyzing the correlation between the exchange rate policy effectiveness and BSP's credibility in inflation targeting. However, there rise three questions.

⁶ Assets of the universal and commercial banks consist more than 90 percent of that of the total banking sector.

Figure 1: BSP's Liabilities (end-year)



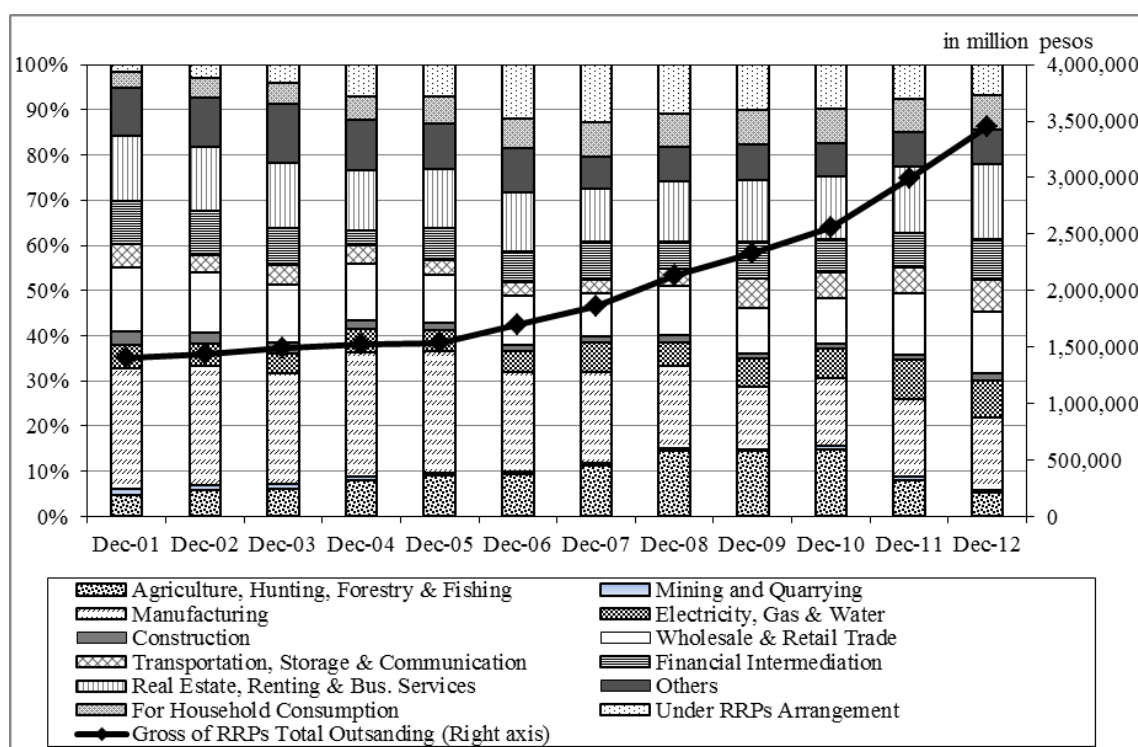
Note) *Other deposits include: Reserve deposits of other depository corporations and other financial institutions, other foreign currency deposits, and other deposits (mostly by GOCCs).

Source) BSP website.

Firstly, the SDA outstanding has steadily increased regardless of its facility changes by the BSP. The wider access to the SDA facility provided incentives to the applicable institutions, but lowering the SDA rates on the other hand gave disincentives. The outstanding trend represents financial institutions' preference to place their resources in the SDA rather than to allocate in other investments and businesses.

Related to the first question, secondly, it can be raised how and why the banking sector has changed their asset side structure in the post-Asian crisis period. In the Philippines, the loan-over-deposit ratio has been declining by more than 10 percentage points since the late-1990s, despite the increases of deposits and the ratio level is lower than the neighboring countries. Though the loans outstanding steadily increased, some part has been offset by the RRP arrangements in mid-2000s, and clearly the outstanding to the manufacturing has been decreased until recently (Figure 2). Further analyses are necessary for a better understanding of the financial sector's responses to BSP's monetary policy through identifying banks' lending preference in the context of their asset management.

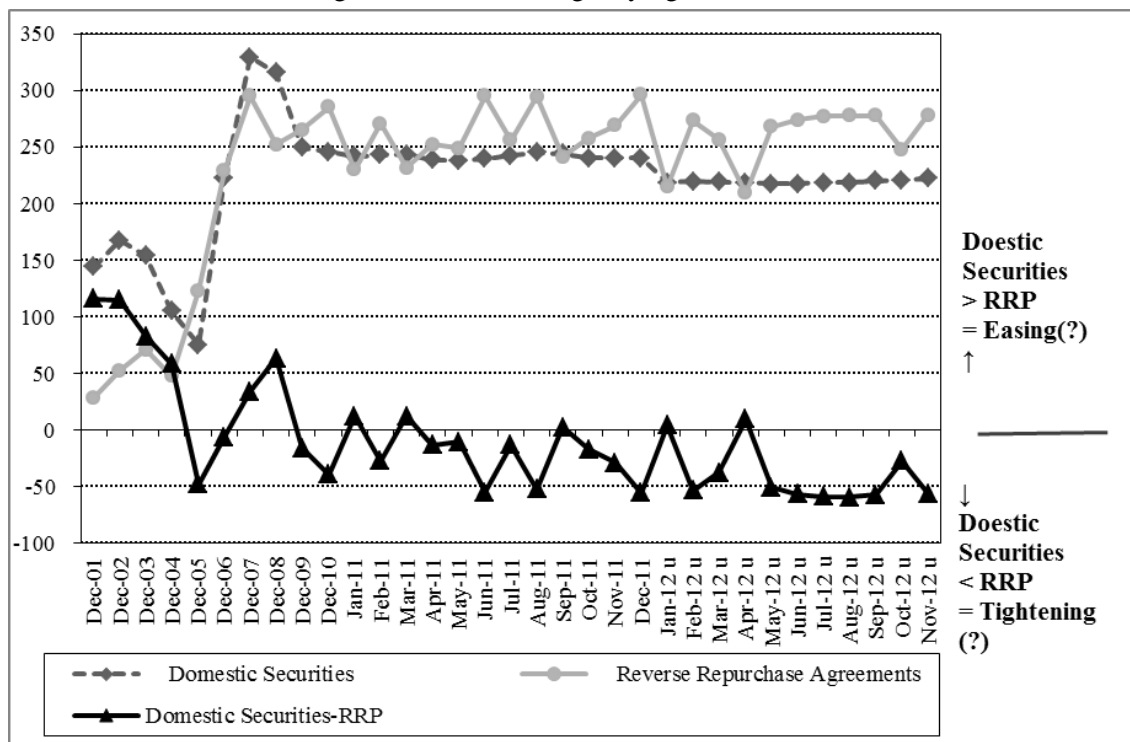
Figure 2: Universal and Commercial Banks' Loans Outstanding
by Industrial Category



Source) BSP website.

Thirdly, according to BSP's asset and liability data, its policy direction of whether easing or tightening liquidity seems to differ depending on the policy measures during the two external shocks – the Lehman shock and Euro area crises in the latter 2000s. For example, BSP's net RRP arrangements outstanding (the RRP arrangements outstanding on the liability side minus the domestic securities on the asset side, referring to the OMO transaction scheme) has been increased in 2007-2008 from the level of PhP30 billion to that of PhP60 billion, then turned negative in 2009-2010 (Figure 3). The net RRP outstanding moves during the period suggest that at the onset of the Lehman shock the BSP took monetary easing. On the contrary, since the Euro crisis arose in 2010, the net RRP has been basically negative. While looking at the Loans and Advances (in BSP's asset side), its outstanding level has not shown significant changes throughout in either direction in the above period. Therefore, it needs to verify the reasoning of these different policy responses: e.g., in 2010 if the BSP recognized the market had been liquid enough considering the economic distress abroad.

Figure 3: BSP's Selling/Buying of Securities



Note) Data for 2012 is unaudited.

Source) BSP website.

5. Conclusion

The survey of previous works on BSP's policy measures effectiveness suggests that the BSP puts importance on the price/interest rate changes stimulated by the measures taken. As it formally adopts inflation targeting as the main objective, the survey results seem natural. But on the other hand, in a country where investment and development resources are still much in need like the Philippines, it should be adequately assessed if those resources are allocated to appropriate sectors. That means further analyses on a policy's quantitative effectiveness and responses from the financial sector are inevitable to better and comprehensively understand the Philippines' situation. For such studies, the following should be in mind: (1) the financial institutions' asset side – other than loan outstanding – to analyze the behavior in structuring their portfolios, and (2) the quantitative impacts during the monetary easing period.

References:

- Albert, J. R. and T. H. Ng [2012] "Assessing the resilience of ASEAN banking systems: the case of the Philippines," ADB Working Paper Series on Regional Economic Integration No. 93, February 2012, Manila: Asian Development Bank.
- Angeles R. and M. A. Tan [2007] "The contribution of the output gap to the conduct of inflation targeting in the Philippines," *Philippine Review of Economics*, Vol. XLIV, No. 1, pp. 99-123.
- Bautista, C. C. [2006] "The exchange rate-interest differential relationship in six East Asian countries," *Economic Letters*, 92, pp. 137-142.
- Bayangos, V. B. [2010a] "Tracing the bank credit channel of monetary policy in the Philippines," *Bangko Sentral Review*, 2010, Manila: Bangko Sentral ng Pilipinas (BSP: Central Bank of the Philippines).
- Bayangos, V. B. [2010b] "Tracing the macro-financial linkages in the Philippines," SEACEN paper on Macro-Financial Links and Monetary Management, Kuala Lumpur, Malaysia.
- Bayoumi, T. and O. Melander [2008] "Credit matters: empirical evidence on U.S. macro-financing linkages," IMF Working Paper No. WP/08/169, Washington, D.C.: International Monetary Fund.
- Berger, A. N. and L. J. Mester [1997] "Inside the black box: what explains differences in the efficiencies of financial institutions?" *Journal of Banking & Finance*, Vol. 21, No. XX, pp. 895-947.
- Bernanke, B. and M. Gertler [1995] "Inside the black box: the credit channel of monetary policy transmission," *Journal of Economic Perspectives*, Vol. 82, No. 4, pp. 27-48.
- Bernanke, B., T. Lauback, F. Mishkin and A. Posen [1999] *Inflation Targeting: Lessons from the International Experience*, Princeton University Press.
- Dacanay III, S. J. O. [2010] "The evolution of cost and profit efficiency of Philippine commercial banks," *Philippine Review of Economics*, Vol. XLVII, No. 1, pp. 109-146.
- Dakila Jr., F. G. and R. A. Claveria [2006] "The impact of BSP policy interest rates on market interest rates," *Bangko Sentral Review*, January 2006, pp. 1-6.
- Dakila Jr., F. G. and M. D. G. Paraso [2005] "Monetary transmission mechanism in the Philippines: the interest rate channel," *Philippine Review of Economics*, Vol. XLII, No. 1, pp. 55-80.
- Dakila Jr., F. G. [2001] "Alternative monetary policy rule for the Philippines," *Philippine Review of Economics*, Vol. XXXVIII, No. 2, pp. 7-36.
- Floro, D. N., and J. R. Basilio [2009] "Regional inflation persistence in the Philippines," *Bangko Sentral Review*, 2009, pp.41-54.
- Fry, M. J., C. A. E. Goodhart, and A. Almeida [1996] *Central Banking in Developing Countries:*

Objectives, Activities & Independence, London: Routledge.

- Glindro, E. T. and I. T. Estigoy [2006] “Exchange rate and interest rate differential nexus in the Philippines: a vector error correlation approach,” *Bangko Sentral Review*, July 2006, pp. 1-11.
- Hsing, Y. [2004] “Monetary, fiscal and exchange rate policies and Philippine output: an application of IS-MP-AS model,” *Philippine Review of Economics*, Vol. XLI, No. 1, pp. 45-55.
- Karim, M. Z. A. [2001] “Comparative bank efficiency across selected ASEAN countries,” *ASEAN Economic Bulletin*, Vol. 18, No. 3, pp. 289-304.
- Manlagnit, M. C. V. and M. B. Lamberte [2004] “Evaluating the impacts of competition policy reforms on the efficiency of Philippine commercial banks,” PIDS Discussion Paper Series No. 2004-46, Manila: Philippine Institute of Development Studies (PIDS).
- Mishkin, F. S. and A. S. Posen [1997] “Inflation targeting: lessons from four countries,” *Federal Reserve Bank of New York Economic Policy Review*, August 1997, pp. 9-110.
- Mishkin, F. [1996] “The channels of monetary transmission: lessons for monetary policy,” NBER Working Paper Series No. 5464, Washington, D.C.: National Bureau of Economic Research.
- Pobre, M. L. [2003] “An analysis of the monetary transmission mechanism in East Asia,” *Philippine Journal of Development*, Vol. XXX, No. 2, pp. 229-254.
- Tuano-Amador, M. C. N, E. T. Glindro, and R. A. Claveria [2009] “Some perspectives on the monetary policy transmission mechanisms in the Philippines,” *Bangko Sentral Review*, 2009, pp. 17-40.
- Yap, A. M. and C. B. Bagsic [2008] “Adjustments in the face of Peso volatility: perspective from the past and policy directions,” BSP Working Paper Series No. 2008-02, Manila: BSP.
- Yap, J. T. [2009] “Evaluating sterilized intervention under an inflation-targeting framework: the case of the Philippines,” *Philippine Review of Economics*, Vol. XLVI, No. 2, pp. 261-282.

Websites:

Bangko Sentral ng Pilipinas (BSP) www.bsp.gov.ph

Philippine Institute for Development Studies (PIDS) www.pids.gov.ph