A REVIEW OF ISSUES CONCERNING RESERVE REQUIREMENTS

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Introduction

Observers have long noted that the present system of high reserve requirements (RR) results in high intermediation costs for bank loans.[1] Others in the financial sector have also made the claim that high reserve ratios tend to stifle the growth of the domestic capital market by preventing the development of various types of financial instruments.

In 2004, the Department of Economic Research of the Bangko Sentral ng Pilipinas (BSP) undertook a comprehensive study of reserve requirements, with a view to a possible reduction of the RR over the medium term.[2] The review was part of the BSP's efforts to make monetary instruments more flexible and market-oriented in line with the rapid development and deepening of a financial markets and the BSP's shift to inflation targeting as the framework of monetary policy.

The review focused on various issues relating to reserve requirements in the context of existing literature and current international practice. Features of the present reserve regime were also analyzed in the context of the BSP's monetary policy strategy and regulatory framework in order to explore ways to make better use of reserve requirements to serve monetary policy objectives.

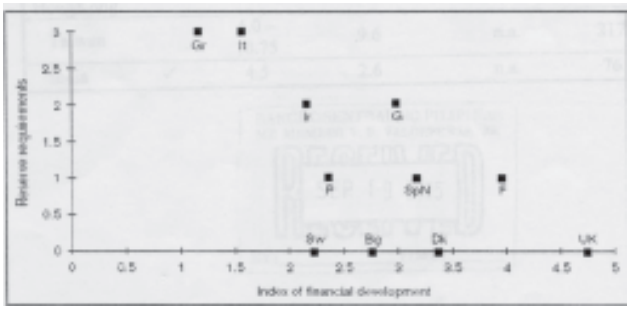
Following the review, the Monetary Board agreed to an initial round of RR reduction, for implementation in mid-2005, as recommended by the study. However, in light of the expected breach in the inflation target for 2005 and 2006 and the recent evidence of excess liquidity in the financial system, such reduction was not deemed appropriate at present. Monetary authorities thought it prudent to refrain from any monetary action that could contribute further to price pressures.

Findings of the Study

One of the main findings of the study is that RR ratios remain useful as a handle for monetary control purposes. In recent years, there has been a shift away from the use of RR as a major policy tool in most developed countries. This linked to the growing need for more market-based monetary policy instruments, given the advent of financial liberalization and deregulation. However, as Enoch and Quintyn (1996) argue, the design and use of RR should be linked to their role in monetary management. If the central bank places great importance on its monetary control function, then the RR ratio remains useful.

In addition, Di Giorgio and Reichlin (2001) offer arguments and empirical evidence supporting the notion that the optimal level of RR should be related to the efficiency and level of development of the domestic financial system. Using data on EU economies, they find that countries with a low degree of financial development appear on average to be subject to heavier regulation in terms of RR. Economies with more developed financial markets in the early 1990s (e.g., the UK, Belgium, Sweden, and Denmark), had low levels of RR compared with Greece, Ireland and Italy (see Chart 1). Using results from a general equilibrium model, they concluded that for economies with financial markets that are less developed or farther away from the condition of perfect capital markets, it is optimal for the monetary authority to impose RR. Moreover, the reserve coefficient should be higher when the domestic financial system is less developed (i.e., when financial

Chart 1: **Reserve Requirements and Financial Development**



intermediation is dominated by banks), and that only after a sufficient degree of financial development has been reached should RR be lowered.[3]

A similar pattern has been observed among Asian countries. RR ratios in the Philippines are relatively higher compared with prevailing levels in developed and Asian countries because the Philippine financial system remains relatively less developed. In the region, the Philippines has one of the lowest proportions of M3 to GDP, which is a measure of financial deepening and the relative size of the financial sector compared to the economy (Table1). As of end-2003, domestic liquidity (M3) was less than half (at 39.6 percent) of the country's annual nominal GDP. This is significantly lower than the M3/GDP ratios for Thailand (95 percent), Malaysia (140.2 percent) and Singapore (125.7 percent).

It was also observed that the Philippine financial system remains dominated by banks. Data as of end-2003 show that Philippine banks accounted for more than 80 percent of the total resources of the financial system. Banks' share of financial resources has, in fact, been increasing over the years from 76.0 percent of the total in 1980 to almost 82.0 percent in 2003 (Table 2). This structure suggests that RR continue to be a useful tool for influencing liquidity in the financial system.

In sum, the data suggest that the Philippines' high reserve ratios may be partly a result of its state of financial development. Because the financial system has less developed capital markets and continues to

Table 1. **Selected Data on Reserve Requirement**

	Kept with CB	Range of Ratios[1] (%)	Required Reserve [1] (% of GDP)	Required Reserve [2] (% of M3)	M3 [3] (% of GDP)
ASEAN Members					
Philippines		19.0[a]	5.6	14.1	39.6
Indonesia	•	5.0	2.1	3.9	53.5
Malaysia	•	4.0	4.4	2.7	140.2
Singapore	•	3.0	3.7	2.9	125.7
Thailand		6.0	5.6	5.9	95.0
Other Asian Countries					
Japan		0.05 – 1.3	1.2	n.a.	110.2
Korea	•*	1.0 – 5.0	3.1	1.0	268.0
China		6.0	17.3	n.a.	189.9
HongKong		n.a.	n.a.	n.a.	282.1
Taiwan		4.0 – 10.75	9.6	n.a.	217.7
India	•	4.5	2.6	n.a.	76.9

n.a. – no data available
1 Source: BIS (April 2004), website of respective central banks
2 Source of basic data: BIS (April 2004, website of respective central banks, CEIC, Bloomberg)
3 Data are for end-December 2003
* up to 35 percent kept in vaults
a Consisted of 9 percent in regular reserves (RR) and 10 percent in liquidity reserves (10). Liquidity reserves represent that portion of reserve requirements that are kept in market-yielding government securities purchased directly from the BSP. RR were raised in July 2005 to 10 percent for RR and 11 for LR

Table 2. **Total Resources of the Philippine Financial**
For the periods indicated

PERIOD	GRAND TOTAL (In billion pesos)	BANKS		NON-BANKS	
		LEVELS (In billion pesos)	PERCENT SHARE TO TOTAL	LEVELS (In billion pesos)	PERCENT SHARE TO TOTAL
1980	**248.1**	188.8	76.10	59.3	23.90
1985	**503.2**	395.1	78.53	108.0	2147
1990	**800.2**	609.7	76.19	190.5	23.81
1995	**2,049.4**	1595.5	77.85	453.9	22.15
2000	**4,023.9**	3326.7	82.67	697.2	17.33
2001	**4,099.5**	6403.2	83.02	696.3	16.98
2002	**4,325.9**	3595.7	83.12	730.2	16.88
2003	**4,638.2**	3791.3	81.74	486.8	18.26

Source of Basic Data: Consolidated Statements of Condition of Banks and Non-Banks

Table 3. **Legal Reserve Requirements of Commercial Banks against Peso Deposit Liabilities and Deposit Substitutes**

Effective Date	Circular No.	TOTAL[1/]	REGULAR RESERVE					"LIQUIDITY" RESERVE
			Demand	Savings	Times[2/]	Deposit Substitutes[2/]	'NOW" Accts.	
28-Jan-93	1377	24	24	24	24	24	24	
30-Apr-93	1377	23	23	23	23	23	23	
30-Jul-93	1377	22	22	22	22	22	22	
31-Dec-93	10	20	20	20	20	20	20	2
15-Aug-94	38	19	17	17	17	17	17	2
31-May-95	73	17	15	15	15	15	15	2
3-Jan-97	119	16	14	14	14	14	14	2
4-Jul-97	119	15	13	13	13	13	13	2
31-Jul-97	136	17	13	13	13	13	13	4
15-Aug-97	139	18	13	13	13	13	13	5
29-Aug-97	140	21	13	13	13	13	13	8
5-Sep-97	141	20	13	13	13	13	13	7
19-Sep-97	141	19	13	13	13	13	13	6
15-Oct-97	144	18	13	13	13	13	13	5
15-Nov-97	144	17	13	13	13	13	13	4
20-Mar-98	158	17	10	10	10	10	10	7
29-May-98	166	15	8	8	8	8	8	7
2-Oct-98	180	17	10	10	10	10	10	7
1-Feb-99	188	16	10	10	10	10	10	6
1-Mar-99	188	15	10	10	10	10	10	5
16-Apr-99	197	14	10	10	10	10	10	4
2-Jul-01	205	12	9	9	9	9	9	3
13-Oct-00	260	14	9	9	9	9	9	5
20-Oct-00	262	16	9	9	9	9	9	7
27-Jul-01	286	18	9	9	9	9	9	9
10-Aug-01	288	20	9	9	9	9	9	11
7-Dec-01	312	18	9	9	9	9	9	9
18-Jen-02	319	16	9	9	9	9	9	7
21-Mar-03	377	17	9	9	9	9	9	8
6-Feb-04	418	19	9	9	9	9	9	10
15-July-05	491	21	10	10	10	10	10	11

1/ Includes regular and liquidity reserves
2/ These rates apply to those with maturities of: 730 days or less and more than 730 days, respectively. Starting 15 November 1990, which is the effectivity date of Circular No. 1261, a uniform rate was prescribed regardless of maturities.
3/ Refers to the portion which are allowed to be held in the form of market-yielding government securities purchased directly from the BSP. Prior to 31 May 1995. this formed part of the regular reserves. After that date, it was added on to the regular reserves and was later referred to in later circulars as liquidity reserves.
a/ Under this circular, the composition of reserve requirements was revised, allowing up to 2 percentage points of the regular reserve to be held in the form of market-yielding government securities purchased directly from the BSP.

be dominated by banks, RR remain a useful policy handle to attain monetary policy objectives. This is contrary to the argument that RR should be reduced to help develop and deepen the capital market.

High RR serve as tax on bank intermediation, leading to higher lending and lower deposit rates. In theory, RR add to banks' intermediation costs and act as a tax on intermediation. As Feinman (1993) notes, "requiring depositories to hold a certain fraction of their deposits in reserves, either as cash in their vaults or as non-interest-bearing balances imposes a cost on the private sector equal to the amount of foregone interest on these reserves—or at least on the fraction of these reserves that banks hold only because of legal requirements and not because of the needs of their customers". The higher the level of RR, the greater the costs imposed on the private sector. Furthermore, Enoch, Hilbers and Kovanen (1997) argue that remuneration of RR at zero or below market interest rates effectively imposes a tax on banks.

Existing literature also suggests that depository institutions usually attempt to pass on the RR tax to their customers. For example, Black (1975) and Fabozzi and Thurston (1986) argue that the RR tax is passed on to depositors of reservable instruments in the form of lower yields. Fama (1985) and James (1987), on the other hand, suggest that the RR tax is passed on to bank borrowers in the form of higher interest rates on loans. Similarly, Feinman (1993) argues that, although determining precisely who bears the burden of the reserve tax as with most taxes is difficult and depends on the degree of competition in the markets for deposits and loans, it is certain that depository institutions and their shareholders do not bear all of the costs but rather pass at least some of them on to their customers in the forms of lower deposit rates and higher loan rates.

Data on the estimated intermediation cost of banks in the Philippines show that given an average 91-day T-bill rate of 7.614 percent in September 2004 (Table 4) a base lending rate of 8.944 percent was derived, with the contribution of intermediation cost resulting from RR amounting to 0.88 percentage point, equivalent to almost 10 percent of the base lending rate

Banks in the Philippines account for more than 80 percent of the total resources of the financial system and thus have significant influence over the market for both loans and deposits. As such, they are in a position to pass on the additional intermediation costs to their depositors and borrowers. A cross-country comparison of spreads between lending and deposit rates show that while the low end of the spread earned by RP banks at 4.5 percent is comparable to those of other Asian countries (with the exception of Indonesia), the high end of the spread at 6.8 percent is relatively higher than those of other selected Asian countries (with the exception of Indonesia).

Table 4. **Share of Monetary and Fiscal Imposition**

	DEC 2003		SEP 2003	
	Monetary and Fiscal Imposition[1]	Share (%)	Monetary and Fiscal Imposition[1]	Share (%)
Reserve requirement	0.691	62.1	0.880	66.1
Agrarian credit requirements	0.241	21.6	0.241	18.1
Credit to SMEs	0.085	7.6	0.084	6.4
Gross receipts tax	0.095	8.5	0.125	9.4
Total	1.112	100.0	1.330	100.0
Memo Item:				
91-day T-bill rate	6.439		7.614	
Base lending rate	7.550		8.994	

[1] Expressed as percentage points

Table 5. **Cross-country Comparison of Spreads Between Lending Rates and Deposit Rates**

COUNTRY	LENDING RATE (1)	TIME DEPOSIT (2)	SPREAD (1)-(2)
Philippines			
Lending Rate: Low-end	10.27 [a]	5.83 [b]	4.47
High-end	12.35 [a]	5.83 [b]	6.52
Malaysia	6.09	3.00	3.09
Indonesia	14.58	6.28	8.30
Thailand	5.50	1.00	4.50
Singapore	5.30	0.41	4.89
Korea	5.97	3.41	2.56
Sri Lanka	9.08	4.98	4.10
China	5.04	1.71	3.33

[a] Average for September 2004
[b] 91-180 day Peso Time Deposit Rates (September 2004)Source of basic data: CEIC, 14 October 2004

High intermediation costs encourage banks to engage in off-balance sheet transactions and other schemes conceived to avoid RR. It has been observed that the high RR ratios on banks' deposit and deposit substitute liabilities have encouraged the development of new financial products that are not subject to RR. For example, Llanto and Lamberte (1995) note that, in the 1980s, banks introduced higher-yielding trust accounts to induce savers to place their savings in financial instruments. Most commercial banks and some thrift banks have been given authority by the then Central Bank to operate trust accounts, which are treated as an off-balance sheet activity of banks. This encouraged the growth of CTFs, which subsequently became also subject to RR. Thus, during 1990–1992, trust accounts grew by 55 per cent annually on average. CTFs grew from ₱32.5 billion in 1986 to ₱130.5 billion in 1991 accounting for about 46 percent of total contingent accounts for that year.

The proliferation of such practices that have posed market and liquidity risks, particularly to the non-bank public has— in part—prompted the BSP to undertake a review of the RR system.

The application of bank capital requirements could reduce the need for high RR. In the search for various options that the central bank could take to reduce RR without injecting additional liquidity to the financial system, the possibility of using capital requirements (or an increase in regulatory capital) was explored. It was argued that since an increase in regulatory capital could lead to tighter monetary conditions through a contraction in the supply of bank loans which, in turn, could lead to a contraction in bank lending, a more aggressive reduction in RR requirements could be allowed.

A problem with this argument, however, is that the use of bank capital requirements is not without its attendant problems. Most notably, as in the case of reserve requirements, the effectiveness of bank capital requirements as a binding constraint on bank behavior depends largely on the strength of regulatory enforcement. Moreover, bank capital requirements are not immune to regulatory arbitrage. Banks, according to Black and Posner (1978), have a natural incentive to overstate the level of regulatory capital.[4] Indeed, risk-weighted capital requirements under the Basel Accords have given rise to what Jones (2000) called "regulatory capital arbitrage" which has lowered the effective risk-based capital requirements of many banks to well below the 8 percent standard set by the Accord.[5] Caprio and Honohan (1999) also note that in many developing countries bank capital is impaired by failure to declare loans as nonperforming and by relying on financially related firms to buy a bank's stock, thereby lowering the true capital of the bank.

Limiting the forms of government securities that qualify as RR will strengthen monetary control. One other issue considered in order to strengthen monetary control during the review was the form in which reserves should be kept. In particular, the effectiveness of monetary control was analyzed in view of the current practice allowing banks to hold a portion of their reserves in certain forms of GS.

In most countries RR usually take the form of cash balances held at the central bank and cash held in banks' vaults. However, some central banks also allow the use of government securities (GS) as a form of bank reserves. This is based on the theory that, unlike cash in vaults or unremunerated balances with the central bank, such securities enable banks to earn at market interest rates.

There are, however, theoretical reasons against the use of GS as allowable reserves. Marston (1996) argues that the use of GS as an eligible asset for RR weakens monetary control to the extent that the NG spends the proceeds from the sale of GS.

Under current regulations in the Philippines, banks are required to keep 25 percent of their regular reserves in the form of deposits with the BSP. The rest may be kept in the form of cash in the banks' vaults or in reserve-eligible government securities (REGS). In 1994, the BSP also allowed banks to keep a certain portion of their reserves in the form of market-yielding government securities purchased directly from the BSP (Circular No. 10 dated 31 December 1993). These were known as liquidity reserves and only special series Treasury Bills purchased from the BSP were allowed as liquidity reserves.

It was observed that GS held as liquidity reserves could weaken monetary control to the extent that liquidity reserves (LR) are allowed to be purchased from the market.[6] The use of LR by banks (other than those purchased directly from the BSP) to comply with changes in RR ratio dilutes the desired contraction/expansion in domestic liquidity, thus reducing the effectiveness of RR as a monetary policy tool. Moreover, the grant of reserve-eligibility for specific bond issues could complicate monetary management to the extent that it could constrain the BSP's ability to estimate with relative accuracy the level of liquidity in the system.

Holdings of GS as reserves could be an effective contractionary tool only when GS are purchased directly from the BSP (as in the case of liquidity reserves) and if such reserves were sold to (and the proceeds deposited with) the BSP, as in the case of the Special Series T-bills.[7] In contrast, GS that are purchased from the market and are declared as allowable reserves could undermine the effectiveness of monetary policy. With more REGS available in the market, it becomes easier for the banking system to accumulate excess reserves in that form. Increasing the RR under such a situation would not be able to achieve the desired contraction in liquidity as banks will just draw from their excess reserve holdings to comply with the higher reserves required. In particular, the banks can comply with the increase in RR without the need for buying special series T-bills from the BSP (which is required in the case of liquidity reserves). Increasing the supply of REGS can also induce banks to change the mix of compliance with the RR in favor of REGS. The share of cash-in-vaults and demand deposits with the BSP could drop to the minimum levels consistent with the requirements under existing BSP regulations.[8] This could negate the desired contractionary impact of any increase in RR because banks are likely to maximize REGS holdings and minimize reserve balances with the BSP in complying with the higher RR level.

Moreover, in case of a reduction in RR, the desired expansion in liquidity could also be limited. With the decline in RR, liquidity could expand when there is a corresponding reduction in banks' excess demand deposits with the BSP and release of cash held as reserves in banks' vaults. While expansion in liquidity from banks' holdings of REGS could also be achieved, it is possible only to the extent that these are used by banks for funding their liquidity requirements via interbank trading. In many cases, however, banks hold on to REGS until maturity to avoid losses resulting from selling these back to the BSP.[9]

Policy Implications

RR continue to be useful as a monetary policy handle in the Philippines. RR are useful in countries where the financial system is relatively small, less developed (in terms of capital markets), and dominated by banks. In the Philippines the use of RR has been useful particularly during times when significant monetary tightening is required, as in cases of prolonged pressure in the foreign exchange markets where banks constitute the main market players. In order to reduce banks' intermediation cost and the risks to the non-bank public, RR ratios could be reduced to levels approximating the amount of working balances that banks normally maintain with the BSP for their payment and settlement business. Alternatively, RR may be reduced to levels representing the amount that banks wish to maintain even if there is no formal obligation to hold reserves. Meanwhile, the BSP should try to avoid granting reserve eligibility to GS because it tends to weaken monetary control.

Two key questions regarding the reduction of reserve requirement ratios relate to (1) the timing and magnitude of the reduction and (2) the way in which it should be linked to the monetary policy stance. While advocates of capital market development have suggested that the RR be reduced as quickly as possible in order to facilitate the reduction of intermediation costs, it should be emphasized that RR ratios are fundamentally a monetary tool, and significant reductions in the ratios will tend to have corresponding monetary—and therefore inflationary—consequences. The monetary loosening implied by the reductions in RR ratios presently being contemplated should therefore be viewed within the larger context of the BSP's overall monetary stance.

From an optimal strategy standpoint, the approach to the reduction of reserve requirements should emphasize gradualism and instrument stability. While the reduction of RR ratios would lower banks' intermediation costs, there do not appear to be any other strong arguments for an aggressive reduction in reserve requirements. It should be kept in mind that prudent monetary decision-making always favors a gradualist approach, not only because of the uncertainty inherent in the operating environment but also because monetary decisions have implications beyond the welfare of any single economic sector, and the larger goal of macroeconomic stability readily outweighs that of enhancing financial sector performance.

Significant reductions in RR ratios may not be possible at present given the prevailing outlook for inflation. Initial reductions should therefore be done in a calibrated, gradual manner. Initial reductions should be done gradually and their magnitude should be calibrated based on (1) the conditional forecasts for inflation two years out; and (2) the potential for renewed exchange market pressure stemming from the additional liquidity to be generated. The emphasis on the inflation outlook is particularly important in the context of monetary policy under inflation targeting. In the light of the expected breach of the inflation targets in 2004 and 2005, monetary authorities would do well to avoid another breach in 2006, especially one that is caused by monetary action via reserve ratios. Improvements in the inflation outlook and the state of the banking system immediately prior to the reductions would allow larger RR reductions.

The policy thrusts suggested above, however, should be viewed in light of the following caveats:

a) Significant reduction in RR resulting in the release of domestic liquidity may lead to exchange market pressure especially if lending activity continues to be sluggish and banks have few avenues for profit-seeking. Estimates indicate that a 1-percentage point reduction in RR will release about ₱17 billion in liquidity to the financial system.[11] The excess funds in the banking system could potentially find its way later on into speculative activity against the peso. The possibility of exchange market pressure may compel authorities to implement monetary tightening measures to stabilize the foreign exchange market.

b) Reduction in RR will have some cost implications for the BSP. Reduction in RR ratios are likely to entail mopping-up operations by the BSP in order to prevent undue liquidity

expansion in an already- liquid financial system. Given current overnight borrowing rates of 7.0 percent, the cost of mopping up excess liquidity for a 1-percentage point reduction in liquidity reserves would amount to around ₱1.2 billion.[12]

Recommendations

Regulations on capital requirements cannot as yet, substitute for RR as there are still operational problems related to its implementation. Decisions involving monetary policy and supervision should, thus, be closely coordinated given that prudential regulations regulations have a bearing on bank lending and liquidity conditions.

Prudence should be exercised in the grant of reserve-eligibility to government securities. As more securities become reserve-eligible, the efficiency of RR adjustments in influencing liquidity (or money supply) gets diluted. Reserve eligibility is often used as an enhancement to bond issuances, but such enhancement may no longer be necessary since sovereign issuances are considered to be risk-free assets. The market should, thus, be able to price these bonds appropriately in accordance with their risks and returns.

Meanwhile, because it remains far for certain that a reduction in RR would actually reduce lending rates or raise deposit rates in the near- or medium-term, the rationalization of RR should be complemented with other initiatives to help bring down interest rates, as follows:

a) Promote directly capital market development through institution-building and establishment of the necessary market infrastructure. It is important to realize that the rationalization of the RR system should by no means be viewed as a substitute for direct measures to develop capital markets by reducing transactions costs, developing market infrastructure and establishing institutional arrangements. Such efforts should continue to be strengthened in order to speed up the process of financial development.

b) Promote competition in the banking system to increase banking sector efficiency and help reduce interest rates. The current emphasis of bank supervision policy is on strengthening the banking system through mergers and consolidation. Such efforts will need to be balanced with the need to promote competition within the banking sector. Greater competitive pressure in the sector will foster more competitive loan pricing, limit the exercise of market power by dominant players, and encourage greater cost-efficiency among banks. This would directly contribute to lower interest rates in the long run. Measures to reduce or eliminate the policy-induced component of intermediation costs (i.e., other financial intermediation taxes such as the gross receipts tax and the documentary stamp tax) should thus be accompanied by efforts to promote contestable markets in banking through the encouragement of new industry entrants, particularly foreign players, along with the strengthening of corporate governance in the banking industry.

c) Promote competition and efficiency in the foreign exchange market. Empirical evidence suggests that the structural features of the foreign exchange market have a statistically significant impact on nominal exchange rate volatility. For example, the presence of decentralized dealer markets tends to be correlated with lower NEER volatility.[13] A highly liquid foreign exchange market with a large number of participants will prevent individual market players from exercising undue influence over the level of the exchange rate. It will also help ensure the orderly adjustment of the currency market to economic conditions and enhance its ability to help in the efficient allocation of resources. Thus, authorities may explore ways to expand the number of market participants in the Philippine Dealing System to ensure greater liquidity as well as improved market signaling and price discovery.

Conclusion

Prudent policymaking dictates that policy actions be evaluated vis-à-vis their stated objectives. Thus, the Monetary Board agreed that the initial round of reductions in RR would be accompanied by a formal evaluation of their impact, after a one-year period on: (1) the decline in interest rates; (2) expansion in domestic liquidity; and (3) exchange market pressure.

However, given developments on the inflation front and the recent evidence of excess liquidity in the financial system, the reduction in RR was not implemented in 2005. With supply side pressures from oil prices continuing to dominate the inflation environment, authorities recognized the need to be vigilant not only in ensuring that first round price increases do not feed back into second-round inflationary effects, but also that monetary action does not contribute to the current price pressures.

Given that RR policy in the past has been influenced partly by the arbitrage behavior of banks, the Monetary Board also noted the need to further strengthen efforts to ensure that banks adhere at all times to the prudential and banking regulations imposed by the authorities. Bearing in mind that capital requirements also have important effects on bank lending and monetary aggregates, the Monetary Board decided that prudential regulations should be tightly coordinated with the monetary policy setting process.

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Endnotes:

[1] Gochoco Bautista (1999)

[2] In a memorandum to the Monetary Board dated 2 July 2003, the Department of Economic Research (DER)recommended, among others, that the elimination of reserves on common trust funds (CTFs) will be evaluated in the context of an overall review of the reserve requirement structure which will be undertaken by the DER.

[3] Indicators of financial development include financial deepening (M3/GDP), the spread between deposit and lending rates, share of employment in the financial sector to total domestic employment.

[4] Black, F., M. Miller, and R. Posner (1978). "An Approach to the Regulation of Bank Holding Companies." *Journal of Business*, 51, 379-412.

[5] D. Jones (2000). "Emerging problems with the Basel Capital Accord: Regulatory capital arbitrage and related issues," *Journal of Banking and Finance*, vol. 24(1), pages 35-58, 1.

[6] Circular No. 10 dated 31 December 1993 allowed banks to invest in market-yielding government securities purchased directly from the BSP.

[7] Initially Circular No. 10 dated allowed banks to invest in market-yielding government securities purchased directly from the BSP), the proceeds were deposited to the NG account with the BSP; but subsequently (in 2004) NG withdrew the proceeds so that the outstanding balance is now only P30 billion.

[8] Section 254 of the Manual of Regulations for Banks (MORB) requires banks to set aside at least 25 percent of the required reserves in the form of deposits with the BSP, with the remaining portion held in the form of cash in vaults and/or government securities or evidences of indebtedness of the Republic of the Philippines.

[9] MART has raised the issue that BSP's buying rate for reserves is lower than market so that banks incur a loss in the process of selling back to the BSP. Hence, they would rather hold on to the REGS until maturity. Given this situation, the lowering of liquidity reserves during times of easing the monetary stance will not achieve the desired end in the same way that a reduction in regular reserves can.

[10] Scott E. Hein and Jonathan D. Stewart, "Reserve Requirements: A Modern Perspective," Federal Reserve Bank of Atlanta Economic Review, Fourth Quarter 2002.

[11] Based on a deposit base of P 1674.6 billion as of end-February 2005

[12] Computed as P16.75 billion x 7 percent.

[13] Jorge Canales-Kriljenko and Karl Habermeier, "Structural Factors Affecting Exchange Rate Volatility: A Cross-Section Study," IMF Working Paper No. 04-147, August 2004.

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