

MONETARY POLICY AND MACROPRUDENTIAL MEASURES

CENTRAL BANK OF PARAGUAY

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Introduction

Paraguay, a small and open economy linked to export agribusiness with indirect ties to the international financial market, experienced a profound and prolonged financial crisis in the nineties that led to substantial regulatory policy and supervision reforms. Since then, prudential rules and regimes as well as supervisory techniques were improved to the levels that are reflected in our sound, stable and growing financial system.

The capital market or public offerings of securities are still incipient. The social security entities have significant savings in the financial system and do not as yet have a regulatory and supervision regime.

Savings and loan cooperatives emerged with the financial crisis of the nineties and currently hold an amount that is significant with regard to the system. These entities are regulated and supervised by an autonomous body.

Though it is true that the country has not experienced a direct impact from the recent global financial crisis, measures have been taken to support and protect the stability of the financial system. When the most severe effects of the global crisis were overcome, the Central Bank of Paraguay (BCP, for its acronym in Spanish) implemented macroprudential measures with the objective of ensuring the strength and solvency of the financial system. On top of this, the Payment System project, with the function of contributing to minimizing systemic risk, was carried out. The adoption of these measures took place at the same time as the migration of the monetary policy to an inflation targeting regime, where the operating capacity and efficiency of the

financial system undoubtedly constitute very important elements to optimizing the monetary policy.

Monetary Policy and Macroprudential Measures

The objective of macroprudential instruments, as mentioned by Borio (2009)¹, is to reduce the systemic risk of financial stress and control macroeconomic costs in terms of the GDP so the preventive nature of the measures implemented can moderate the procyclicality of the financial accounts.

Macroprudential measures focus on the overall solvency of the financial system, unlike microprudential regulation that centers its attention on the individual solvency of the financial entities. Because of this, there is a very close connection to financial stability by incorporating the feedback that exists between the economic and financial cycles in the sense that the economic cycle should not accentuate the volatility of the financial cycle and lead to the latter to place macroeconomic stability at risk.

There is no doubt of the strong interrelationship between monetary policy and macroprudential measures. This does not imply, however, that macroprudential objectives are the primary objectives of the monetary policy. Evidence shows that an efficient monetary policy facilitates the consolidation of the financial system and this contributes to diminishing the procyclical trends of the financial system. On the other hand,

¹ Claudio Borio, "Implementing the Macroprudential Approach to Financial Regulation and Supervision" Banque de France, Financial Stability Review, September 2009

macroprudential measures oriented toward strengthening the financial system reinforce the actions of the Central Bank toward achieving monetary stability. In general, the orientations of both policies, monetary as well as macroprudential, will tend to coincide in terms of the trajectory of the economic cycle, but it is worth mentioning that the efficiency of the measures differs in certain situations; for example, in the presence of inflation risk, macroprudential measures cannot substitute increases in interest rates. On the other hand however, macroprudential measures are the most indicated for improving the financial system's capacity to respond; nevertheless, its effects are limited in terms of influencing the trajectory of aggregate demand and inflation expectations.

The Financial System of Paraguay

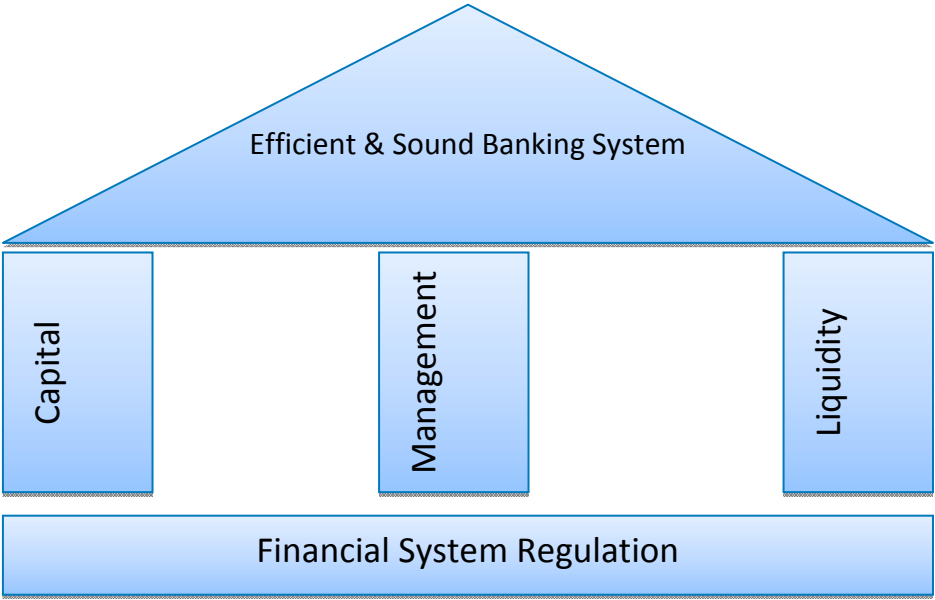
The Financial Sector Assessment Program (FSAP) carried out by joint World Bank/International Monetary Fund missions in 2005 and 2010, enabled the identification of strengths and weaknesses in the financial system by the Central Bank of Paraguay. In accordance with these results it implemented, with even greater commitment over the last few years, a series of recommendations that enabled substantially improving the regulation and supervision of the financial system, as mentioned in the last report of the International Monetary Fund.² The progress realized is reflected in the significant improvements of all financial soundness indicators, which at the

² Financial Sector Assessment Update, IMF, May 2011

same time enabled a greater degree of financial deepening and bancarization of the country.

The Central Bank of Paraguay developed the Financial Regulation System based on three pillars, facilitating the convergence to a more sound and efficient financial system. These pillars relate to the levels of capitalization, management, and liquidity of the Banking System.

Graph 1: Financial System Regulation Scheme in Paraguay



With regard to capital, the Central Bank of Paraguay has recently approved a capital adequacy adjustment for banking entities with regard to risk-weighted assets and liabilities, differentiated between Tier 1 and Tier 2 capital in accordance with Basel requirements for this particular requirement. This is an initiative which without a doubt ensures the quality

of capital and leads to better capitalized and sounder institutions remaining in the system.

Additionally, an increase in real terms of the minimum capital required to access the market was established. The reasoned rationale being that there is a minimum size at which the presence of the corporation in the market is sustainable.

Moreover, for the sole purpose of the establishment of provisions, not risk classification, a pertinent modification was introduced. A debtor is to be considered in arrears from the first day on which financial obligations are not met. In parallel to that, measures were established creating a range for constituting generic provisions going from 0.5% to 2% of the net provisions portfolio.

In terms of bank management, the regulations have focused on creating mechanisms oriented towards strengthening this aspect. To this end, measures were issued that establish requirements and guidelines for the correct management of Credit Risk as well as Market Risk.

A Financial Soundness Unit was created within the Office of the Superintendent of Banks in order to track exogenous factors that affect the financial system and to analyze the interrelationships and derivations thereof. As a result of these studies and information, a Financial Soundness Report is published with a summary of the stress testing carried out on the entities regulated by the Central Bank as well as the indicators. The idea is to generate an ex-ante risk map under alternative stress scenarios.

With regard to the liquidity of the financial system, the Central Bank of Paraguay is intermediating in the money market creating a liquidity management system that will enable progressing toward the development and deepening of a more efficient money market, a basic condition for the implementation of the inflation targeting regime. The Board of the Central Bank implemented a series of mechanisms to provide liquidity to the financial system at market prices with sovereign instrument repos.

With the main measures mentioned above, the majority of the soundness indicators³ have substantially improved over the last few years. Thus, the non-performing loan (NPL) ratio of 11.6% seen in 2005 was decreased to 2.7% in 2011. Likewise, from a provisioning coverage for the NPL portfolio of 38.1% in 2005, this indicator has been increased to 91.5% of NPL in 2011.

The levels of financial efficiency have also improved. The average 18.4% of return on equity (ROE) observed in 2005 was raised to 22.4% in 2011.

A lower balance sheet risk can also be seen. In 2005, the financial system presented an exchange rate exposure of 43.6% and in 2011 this exposure did not go beyond 18.5%.

A significant fact in the realm of supervision is the increased level of compliance with the 25 Core Principles for Effective Bank Supervision. This went from 17% in 2005 to 63% in the 2010 fiscal year.

These indicators reveal the commitment of the Central Bank of Paraguay to continue strengthening bank supervision with the technical cooperation

³ In accordance with the methodology: Macprudential Indicators of Financial System Soundness-IMF, April 2010

provided by the multilateral lending entities. It is also a manifestation of the steadfast conviction that the economy of the country has more opportunities for progress and prosperity with intermediaries that optimize resources, that is, are able to lend at lower costs and pay more for savings in a framework of security and soundness.

Financial System Soundness and Liquidity Indicators

ISF	2005	2006	2007	2008	2009	dic-10	dic-11
Core FSIs							
Capital Adequacy							
Regulatory Capital/Risk-Weighted Asset	22,2%	20,1%	16,9%	16,3%	16,3%	15,4%	14,93%
(NPLs-provisions)/capital	77,3%	20,6%	12,7%	7,32%	1,47%	0,76%	2,65%
Asset Quality							
NPLs (gross)/ total loans	11,60%	5,10%	3,23%	2,60%	2,27%	2,03%	2,72%
Provisions/NPLs	38,07%	61,85%	68,22%	78,82%	94,67%	97,53%	91,51%
Sectorial distribution of loans / Total Loans							
Agriculture	22,20%	23,20%	26,87%	26,48%	25,25%	21,28%	21,50%
Livestock	5,85%	7,82%	9,75%	9,21%	10,70%	11,09%	11,48%
Industry	12,90%	12,60%	11,97%	11,25%	9,29%	9,68%	9,10%
Wholesale	18,44%	16,77%	12,79%	12,96%	11,96%	12,21%	15,25%
Retail	5,14%	5,15%	4,59%	6,30%	7,66%	8,90%	10,39%
Services	26,89%	25,82%	11,58%	10,80%	11,50%	13,03%	8,25%
Consumption	8,46%	8,55%	8,35%	9,45%	10,43%	13,06%	15,37%
Export	0,11%	0,10%	0,09%	0,06%	0,08%	0,10%	0,37%
Financial Service	0,00%	0,00%	14,01%	13,50%	12,98%	10,64%	8,30%
Profitability							
ROA (after-tax) *	2,10%	3,00%	2,82%	3,17%	2,40%	2,39%	2,33%
ROE (after-tax) *	18,40%	24,07%	25,74%	28,44%	23,17%	22,32%	22,39%
Net Interest Income/Operating Margin	74,00%	73,69%	75,34%	73,15%	72,07%	71,18%	73,35%
Non Interest expenses/Operating Margin	62,71%	51,43%	51,31%	48,00%	53,97%	55,42%	53,15%
Liquidity							
Liquid assets/total assets	43,89%	43,79%	44,33%	36,96%	41,22%	33,55%	32,64%
Liquid assets/short-term liabilities	66,54%	72,95%	73,84%	70,38%	73,98%	64,57%	71,97%
Sensitivity to Market Risk							
Net FX exposure / capital	43,57%	19,90%	33,29%	12,71%	-1,16%	4,72%	18,53%
Encourage FSIs							
Capital / Assets	5,05%	4,91%	4,24%	4,30%	4,56%	4,20%	5,46%
Public Deposit /Total Loans	23,12%	22,20%	23,36%	19,18%	25,39%	18,42%	18,14%
FX loans/total loans	36,73%	37,70%	37,49%	38,43%	35,32%	37,11%	41,21%
Foreign - currency-denominated Liabilities/Total Liabilities	52,32%	47,82%	41,70%	47,52%	42,90%	45,81%	46,09%

Source: Office of the Superintendant of Banks, Central Bank of Paraguay

The strong dynamism of the bank market seen over the last few years has generated the possibility of increasing bancarization in the country. Thus, with the 17 banks and 12 finance corporations currently operating in the financial system, the number of bank clients with regard to 2007 has doubled, attaining a ratio of around 10% of the total population of the country. Likewise, the volume of credit in the system has increased in

proportion to GDP, going from 26.6% in 2002 to 36.2% in December 2011. This included an improvement in the portfolio quality given the reduction of the NPL rate as mentioned above.

Monetary and Macroprudential Policies Implemented in Paraguay

In view of the threats of a destabilizing effect from the international financial crisis on the economy as a whole and taking into account the improved level of performance of the financial system in Paraguay, the BCP began the implementation of a package of combined measures, monetary and macroprudential in nature, with the objective of generating an anti-cyclical shield and complementing the fiscal measures implemented by the government. Thanks to the timeliness of the measures implemented and the close coordination with the Ministry of Finance, the financial imbalances that had been seen over the last few years were able to be overcome without putting the inflation target at risk. Hence, these anti-crisis policies of the BCP until 2010 were characterized as expansive with the basic objective of countering any sudden credit crunch. These measures consisted, among others, in a reduction of the bank reserve rates, reductions of the monetary policy interest rate, the establishment and setting into operation of a Short-Term Facilitated Liquidity Line with the Repurchase of Sovereign Securities and Monetary Regulation Instruments, and the opening of an Early Settlement Window for policy instruments issued by the BCP.

Nevertheless, with the reversion of the crisis, the Central Bank of Paraguay went from an expansive monetary policy to a more contractionary monetary

policy. As a consequence, the BCP adopted a series of measures tending toward reducing the monetary stimulus in order for inflation to return to the target range and at the same time organize the monetary market so as to make the monetary policy transmission mechanism more efficient. With the objective of migrating to the Inflation Targeting monetary regime, the BCP has changed the operations of how it places its instruments by setting a rate for shorter term placements (14 days) and holding competitive auctions for the longer terms, in accordance with market needs.

Additionally, structural measures were established with a view toward improving the platform for the implementation of the Inflation Targeting Monetary Policy Regime, such as: setting into operation the liquidity facilitating mechanism (FLIR, for its acronym in Spanish), opening the Interbank Liquidity Window (VLI, acronym in Spanish) and finally, with the objective of anchoring nominal expectations and extending the average term of corporate financing very affected by the volatility of the short-term, the BCP agreed on a framework contract for carrying out currency SWAPS with the International Finance Corporation (IFC).

The Central Bank of Paraguay can avail itself of macroprudential policy instruments to strengthen financial stability. These instruments are, among others, capital requirements, limits on the overall foreign currency position, generic provisions and the distribution of dividends subject to the opinion of the Superintendant of Banks. Even though there are no ceilings on bank credit in foreign currency, the customary practice of financial intermediaries

is to grant loans in foreign currency to those who generate income in the same currency.

INSTITUTIONAL ARRANGEMENTS FOR SYSTEMIC RISK

The Central Bank of Paraguay has a clear legal mandate to maintain the stability of the general level of prices and promote the stability and solvency of the financial system. It carries out the function of a lender of last resort for banks and is the regulator and supervisor of the financial intermediaries through the Office of the Superintendent of Banks. The Board of the Central Bank is the only body with attributes and responsibilities in regard to the legal mandate outlined above.

Bank supervision is carried out by a technical body that enjoys functional and administrative autonomy and is part of the organic structure of the Central Bank, which provides it the advantages of full functional integration with the Central Bank. This functional structure contributes significant strength to the Office of the Bank Superintendent. It derives from having access to information for decision-making coordination and coherence, as well as authority vis-à-vis the supervised entities. The design and execution of macroprudential measures, in view of the mandate and the responsibility for financial stability, are facilitated by this institutional structure.

Macroprudential policy and financial stability are the attributions and duties solely of the Central Bank with no interference from the Ministry of Finance. The Central Bank participates on the National Economic Team, an arena for

the discussion and coordination of the government administration's economic policy that is presided by the Minister of Finance.

The system for the resolution of insolvent entities is done by means of mechanisms and instruments of a Deposit Guarantee Fund established with contributions made by the financial intermediaries and the transitory contribution of State bonds. This Fund is a trust administered by the Central Bank. Past resolution processes have been appropriately coordinated between the Fund and the Bank Superintendent's Office.

There is currently no body in charge of systemic risk policies. As mentioned earlier, the responsibilities regarding the segment of significant systemic risk of the financial system are concentrated in the Central Bank. Nevertheless, the Central Bank itself is promoting the establishment of a Financial Stability Committee comprised of the Bank Superintendent, the Superintendent of Insurance, the President of the National Securities Commission, the President of the National Institute for Cooperatives and a representative of the Ministry of Finance. The Committee would be coordinated by a member of the Central Bank Board and its functions would entail the exchange of information of systemic relevance, scenario analysis and simulations of systemic impacts of events or significant trends, and coordinating the design of measures by the participating institutions.

Conclusion

The measures implemented from the purview of the Central Bank of Paraguay have contributed to strengthening the financial system. This

process began with the crises of the nineties and was strengthened on an ongoing basis after the final episode of the last crisis that took place in 2002.

The strategy, based on a simple yet at the same time solid regulatory regime, reinforces the effectiveness of the measures implemented. To this effect, the technical assistance received from the International Monetary Fund and the World Bank through the FSAP missions of 2005 and 2010 to adjust the system oriented toward international standards was fundamental. Likewise, the experience gathered in the crises that were overcome in the decade of the nineties and the early part of the decade of 2000, enabled the generation of mechanisms by the BCP that can shield the financial system from the bad financial practices which shattered the soundness of the financial system in the past. The adjustments of the supervision and regulation regime for the financial system have fostered the financial market in Paraguay after one of the worst crisis of confidence that led to the country's lowest historical level of financial depth.

Likewise, the orientation of monetary policies to a more prospective rather than corrective nature are achieving consonance with the economic cycles which in turn redounds in less volatility in terms of inflation as well as the GDP of the economy.

It is important to note that the BCP will continue advancing in strengthening the financial system of the country by means of adjusting the regulations and domestic indicators to international standards. In this context, the assistance provided by the International Monetary Fund is considered very important. The international experience accumulated by the entity in terms of the

application of the principles of regulation and supervision towards those that tend to converge the financial systems provides an invaluable source of technical cooperation.

Bank supervision lies in a technical body with functional and administrative autonomy that is part of the organic structure of the Central Bank providing the advantages of full functional integration with the Central Bank. This functional structure contributes a significant strength derived from access to the information needed for decision-making coordination and coherence as well as authority vis-à-vis the supervised entities. The design and execution of macroprudential measures, in view of the legal mandate and responsibility of the Central Bank on preserving financial stability, are facilitated by this institutional structure.

As the regulatory and supervisory entity, responsible at the same time for the stability of the system, the Central Bank has the challenge of continuing to strengthen the legal regulatory and prudential framework, seeking mechanisms and instruments that help mature the financial market and create entities to coordinate actions in the face of systemic risks. Hence, the priority, within the framework of macroeconomic and financial stability, in order to comprehensively assimilate the Basel Principles, is the implementation of more sophisticated financial instruments and ensuring the ongoing progress of financial deepening preserving macro stability and financial soundness in the context of a recovering world economy, interrelations and global financial entities.

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Annex: Paraguay: Summary of Compliance with Basel Core Principles

Core Principle	C ^{1/}	LC ^{2/}	MNC ^{3/}	NC ^{4/}	N/A ^{5/}
1. Objectives, Independence, Powers, etc.					
1.1 Responsibilities and Objectives		x			
1.2 Responsibility and Transparency		x			
1.3 Legal Framework			x		
1.4 Legal Powers		x			
1.5 Legal Protection		x			
1.6 Cooperation		x			
2. Permissible Activities	x				
3. Licensing Criteria		x			
4. Transfer of Significant Ownership		x			
5. Major Acquisitions		x			
6. Capital Adequacy			x		
7. Risk Management Process			x		
8. Credit Risk		x			
9. Problem Assets, Provisions and Reserves			x		
10. Large Exposure Limits			x		
11. Exposure to Related Parties		x			
12. Country and Transfer Risk		x			
13. Market Risks			x		
14. Liquidity Risk			x		
15. Operational Risk				x	
16. Interest Rate Risk in the Investment Portfolio				x	
17. Internal Control and Audit		x			
18. Abuse of Financial Services		x			
19. Supervisory Approach		x			
20. Supervisory Techniques		x			
21. Supervisory Reporting			x		
22. Accounting and Disclosure		x			
23. Corrective and Remedial Powers of Supervisors			x		
24. Consolidated Supervision		x			
25. Home-Host Relationship		x			
Totals (For the 6 subcomponents of BCP1)	1	18	9	2	

Description of the ratings used:	^{1/} C: Compliant
^{2/} LC: Largely Compliant	^{3/} MNC: Materially Non-compliant
^{4/} NC: Non-compliant	^{5/} N/A: Not Applicable