IMMEDIATE ATTENTION

SM/11/86

April 29, 2011

To: Members of the Executive Board

From: The Secretary

Subject: **Bolivia—Financial System Stability Assessment—Update**

This paper provides background information to the staff report for the 2011 Article IV consultation with Bolivia (SM/11/85, 4/29/11), which is being considered on a lapse of time basis. At the time of circulation of this paper to the Board, the authorities of Bolivia have indicated that they need more time to consider whether they will consent to the Fund's publication of this paper. Publication will only proceed upon the receipt by the Fund of the member's explicit consent. Any requests for modifications for publication are expected to be received two days before the Board concludes its consideration.

Questions may be referred to Ms. Zanforlin, MCM (ext. 38783).

Unless the Documents Section (ext. 36760) is otherwise notified, the document will be transmitted, in accordance with the procedures approved by the Executive Board and with the appropriate deletions, to the WTO Secretariat on Monday, May 9, 2011; and to the European Commission, the European Investment Bank, and the Inter-American Development Bank, following its consideration by the Executive Board.

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BOLIVIA

Financial System Stability Assessment—Update

Prepared by the Monetary and Capital Markets and Western Hemisphere Departments

Approved by José Viñals and Nicolás Eyzaguirre

April 29, 2011

This Financial Sector Stability Assessment (FSSA) is based on the work of a joint IMF/World Bank Financial Sector Assessment Program (FSAP) Update mission to La Paz during March 2–15, 2011. The mission met with the Minister and Vice-Ministers of the Economy, the central bank governor, the Executive Director of the Financial System's Supervisory Authority, and representatives of private financial institutions. The main findings were:

- Bolivia has experienced recently a favorable macroeconomic environment and strong growth performance, which has allowed banks to improve their financial position and increase their resilience to macroeconomic shocks. There has also been a notable decline in dollarization.

- However, while considerable progress has been made in implementing the recommendations of the 2004 FSAP assessment, a number of measures to facilitate credit to selected sectors of the economy are weakening banks' prudential buffers. Moreover, major political, legal, and institutional reforms are underway that, unless managed carefully, could work to undermine financial stability.

- In addition, the banking system faces three potential risks. First, real lending rates are negative, and if maintained, could begin to encourage unsound credit growth and discourage savings. Second, banks are vulnerable to interest rate and foreign exchange-induced credit risk because of their significant share of floating rate and foreign currency loans. And third, banks are highly dependent on pension funds for funding, and thus could be affected by any significant change in the new public pension fund's investment allocations.

- To preserve Bolivia's access to the international financial system, it is essential that anti-money laundering (AML) and combating the financing of terrorism (CFT) regulations and practices comply with international norms, including by making the financing of terrorism a criminal offense.

The Update team comprised Luisa Zanforlin (co-head of mission, IMF), Aquiles Almansi (co-head of mission, World Bank), Gregorio Impavido, Richard Munclinger, and Torsten Wezel (all IMF); Javier Bolzico and José Tuya (external consultants, IMF); and Juan Buchenau, Pierre-Laurent Chatain, Ilka Funke, and Ceu Pereira (all World Bank). The main authors of this report are Luisa Zanforlin and Gregorio Impavido, with contributions from the members of the team.

FSAP assessments are designed to assess the stability of the financial system as a whole and not that of individual institutions. They have been developed to help countries identify and remedy weaknesses in their financial sector structure, thereby enhancing their resilience to macroeconomic shocks and cross-border contagion. FSAP assessments do not cover risks that are specific to individual institutions such as asset quality, operational or legal risks, or fraud.

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GLOSSARY

ACH	Automated Clearing House for Direct Debits and Transfers
AFP	Pension Fund Administrator
APS	Pensions and Insurance Authority
ASFI	Financial System's Supervisory Authority
ASOBAN	Association of Private Banks of Bolivia
BCB	Central Bank of Bolivia
BDP	Bank of Productive Development
BOL	Boliviano
CAR	Capital Adequacy Ratio
CCC	Checks Clearing House
CPI	Consumer Price Index
CPISIPS	Core Principles for Systemically Important Payment Systems
COMA	BCB's Open Market Operations Committee
DPF	Bank-issued Certificate of Deposit
DVP	Delivery versus payment
EDV	Central Securities Depository
ELA	Emergency Liquidity Assistance
FFP	Private Financial Fund
FIU	Financial Intelligence Unit
FRF	Financial Restructuring Fund
GPI	Gross Premium Income
HHI	Hirschman-Herfindahl Index
IFD	Development Financial Institutions
IBNR	Incurred but not reported
LBFI	Banking Law
LIP	Integrated Payments Settlement System
MELID	Differed operations settlement mechanism
MELOR	Delayed operations settlement mechanism
MFI	Microfinance Institution
NEP	Net Earned Premium
NIR	Net International Reserves
NPL	Nonperforming loan
NPS	National Payments System
OMO	Open Market Operations
RAL	Fund of required liquid assets
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real Time Gross Settlement System
SAFI	Mutual Fund Administrator
SIPAV	High-Value Payments System
SPT	Treasury accounts
TRE	Reference Interest Rate
UPR	Unearned premium reserves

EXECUTIVE SUMMARY

Bolivia's recent macroeconomic performance has been favorable, although inflation is becoming a concern. An export boom, led by the hydrocarbon and mining sectors, has supported strong economic growth since 2006. Sustained external and fiscal surpluses have raised international reserves to a level that is unprecedented for Bolivia. The concurrent appreciation of the currency and implementation of policy measures have significantly reduced the dollarization of the economy. Ample domestic liquidity, generated by the partial monetization of the increases in international reserves and policy rates close to zero, has supported demand and credit growth. Compounded by increases in external agricultural prices, inflationary pressures have been rekindled in late 2010 and early 2011 as real interest rates turned negative. As a result, authorities have stepped up efforts to reduce domestic liquidity.

The institutional and legal framework in Bolivia is undergoing a profound transformation. The new constitution, approved in 2009, enhances the role of the state in the economy. The required review of a large number of laws has not yet been completed and there is currently no draft of the new banking law. Developmental policy objectives have inspired a monetary stance and changes in the prudential framework that are supportive of credit to key sectors. The supervisory function has also been weakened by eliminating the legal protection of financial sector supervisors and by re-organizing supervisory agencies. A new pension law also requires the consolidation of the two private pension funds into a single state-owned fund, which will play a critical role in domestic capital and liquidity markets.

Banks have strengthened their financial position but recent growth in credit points to risks going forward. Following distress in the early 2000s, banks have restructured loans and shed nonperforming assets, while enjoying good profitability. The system's capital adequacy ratio (CAR) stood at 12 percent at end-2010, in excess of the regulatory minimum of 10 percent. Banks appear relatively efficient and indicators of competition are only slightly below those in the rest of Latin America. While credit quality indicators appear strong, with low nonperforming loans (NPLs) and high provisioning coverage, policy measures aimed at reducing banks' lending costs could lead to higher losses going forward.

Credit risks are compounded by the structure of the loan portfolios of Bolivian banks. The loan portfolio is either indexed to a variable reference interest rate (TRE) or denominated in foreign currency (FX), and a sharp increase in interest rates or a depreciation of the boliviano, including in response to the recently observed inflationary pressures, would increase the loan service burden on borrowers, who are largely unhedged. In addition, a significant share of loans is secured by real estate, the recent price gains of which may not be sustained. Finally, the quality of underwriting and risk-management is constrained by weaknesses in data collection and financial statements.

Liquidity in the system is abundant but unevenly distributed with close to a fifth of deposits belonging to the public pension fund. Deposit-taking institutions, other than commercial banks, in particular, suffer from limited access to the interbank market and a relative lack of assets eligible for emergency liquidity assistance (ELA). Moreover, close to 20 percent of banks' deposits belong to the new publicly managed pension fund, leaving bank liquidity highly dependent on its investment decisions.

While significantly reduced, the current level of dollarization in the financial system continues to pose challenges. Partial dollarization leaves banks exposed to sudden shifts in depositor sentiment that may lead to a sharp increase in FX liabilities. This risk is compounded by new regulations limiting the ability of banks to hold assets abroad, since this constrains the active management of FX positions and banks' ability to meet limits on their net open position.

Stress tests indicate that banks appear resilient to a downturn in the economy, although they are vulnerable to credit risk. The current level of capitalization and the newly implemented countercyclical provisioning requirements enhance resilience. However, a sharp increase in interest rates and/or a significant depreciation would undermine credit quality and could bring the system's CAR below minimum requirements. Similarly, large exposures to the real estate sector mean that banks could suffer significant losses if activity and prices were to fall.

Progress has been made in strengthening the supervisory framework, but more work is needed, including with regard to recent legislation. Supervisory arrangements have been clarified; presidential decrees allowing forbearance were amended, and, among other, new requirements have been issued for managing liquidity, credit, and exchange rate risks. However, the system still lacks a deposit insurance scheme and the regulatory and supervisory frameworks for anti-money laundering and combating the financing of terrorism (AML/CFT) should be strengthened as planned. Finally, recent legislation merits amendment to, in particular: (i) strengthen the operational and budgetary independence of supervisors; (ii) reintroduce legal protection for supervisors; and (iii) avoid using prudential measures to direct credit to key sectors of the economy.

Finally, the government has successfully improved access to finance in recent years, while key measures are required to further promote financial deepening. Public investment is needed to improve infrastructure further. Regulatory requirements for smaller service points, nonbank agents, and mobile networking should be strengthened. Additionally, a clearer definition of the mandate of public financial institutions in the new banking law would limit competitive distortions.

The key FSAP recommendations are reported in Table 1.

Table 1. Bolivia: 2011 FSAP Update Main Recommendations

Recommendations[1]	Horizon[2]	
Macro prudential		
Keep real lending rates positive to avoid unsound credit growth.	Short term	¶3
Supervisory Framework		
Appoint ASFI's executive director officially and specify in the law the conditions for dismissal.	Short term	¶41
Align ASFI's APS' internal capacity and resources with their growing workload and responsibilities.	Short term	¶38
Restore full legal protection for ASFI staff in performing their duties.	Short term	¶37
Commercial Banking Sector		
Ensure that classification and provisioning requirements are based solely on credit risk considerations.	Short term	¶41
Eliminate limits on total foreign investments as a share of capital.	Short term	¶16
Add market risk (interest rate and foreign exchange) to capital requirements.	Short term	¶41
Complete work on operational and interest rate risk guidance.	Short term	¶41
Make the financing of terrorism a criminal act.	Short term	¶42
Provide the FIU with adequate human resources.	Medium term	¶38
The ASFI should increase the intensity, frequency, and coverage of supervision in financial institutions, including formalizing the on-site inspection cycle.	Short term	¶41
Establish clear cooperation mechanisms between the FIU and ASFI.	Short term	¶42
Improve the operations of the credit bureaus	Short term	¶14
Microfinance		
Promote partial credit guarantee schemes, registries for movable assets.	Medium term	¶58
Specify the mandate of public financial institutions.	Medium term	¶59
Carry out financial literacy and promotion campaigns.	Short term	¶58
Insurance		
Update the legal framework.	Medium-term	¶45
Conduct a study on adequacy of reserves and reinsurance arrangements.	Short term	¶24
Increase the frequency of on-site inspection to a one-year cycle.	Medium term	¶46
Pensions		
Strengthen selection criteria standards for public pension fund directors.	Short term	¶47
Auction all insurance risk to insurance providers.	Short term	¶27
Maintain the current strong investment framework.	Short term	¶47
Payment Systems		
Enact a Payments System Law.	Medium term	¶29
Formalize cooperation with ASFI.	Short term	¶29
Establish criteria to access payment system and eliminate discretion.	Medium term	¶29
Supervise all institutions offering money-transfer services.	Short term	¶34
Safety nets		
Include a deposit insurance scheme in the FRF framework.	Short term	¶56

[1] ASFI: Financial Sector Supervisory Authority; APS: Pension and Insurance Supervisory Authority; FRF: Financial Restructuring Fund; FIU: Financial Intelligence Unit.
[2] High priority recommendations are indicated as "Short term."

I. Background and Macroeconomic Context

A. Background

1. **The institutional, legal, and political framework in Bolivia is undergoing a profound transformation.** The new constitution, approved in 2009, enhances the role of the state in the economy, and a review of all existing laws to ensure consistency is underway. Social policy objectives have inspired a monetary stance and changes of the prudential framework that are supportive of credit to key sectors. Central bank independence has been reduced by requiring coordination of financial sector policies with the Ministry of Finance. The independence of the supervisory function has also been affected by the elimination of the legal protection of financial sector supervisors in the performance of their duties and by rearranging supervisory responsibilities. A new pension law provides that the two private pension funds will be consolidated in a single state-owned fund.

2. **These changes are still ongoing and their effects will only be felt over time**. Concerns regarding the impact on property rights have helped keep private investment rates subdued, below regional averages. In December 2010, unfounded rumors of a deposit freeze even triggered a short-lived but generalized bank run. The new banking law and the new sections of the commercial code are being drafted, and while they were not available to the team for review, they could have important implications for financial stability.

B. Macroeconomic Context

3. **An export boom led by the hydrocarbon and mining sectors has been supporting strong growth since 2006.** Higher export volumes of gas and mineral products, supported by surging commodity prices, doubled exports between 2005 and 2010. The global financial crisis had a limited impact, while countercyclical macroeconomic policies cushioned the effects of the global economic slowdown (Figure 1).

- *Average GDP growth rates rose to 4.7 percent annually* in 2006–2010, against 3.2 percent during 1996–2005.

- *Sustained external and fiscal surpluses* have been reflected in an unprecedented rise in international reserves (over US$10 billion or 50 percent of GDP),[3] which provide ample buffers against capital account and terms of trade shocks.

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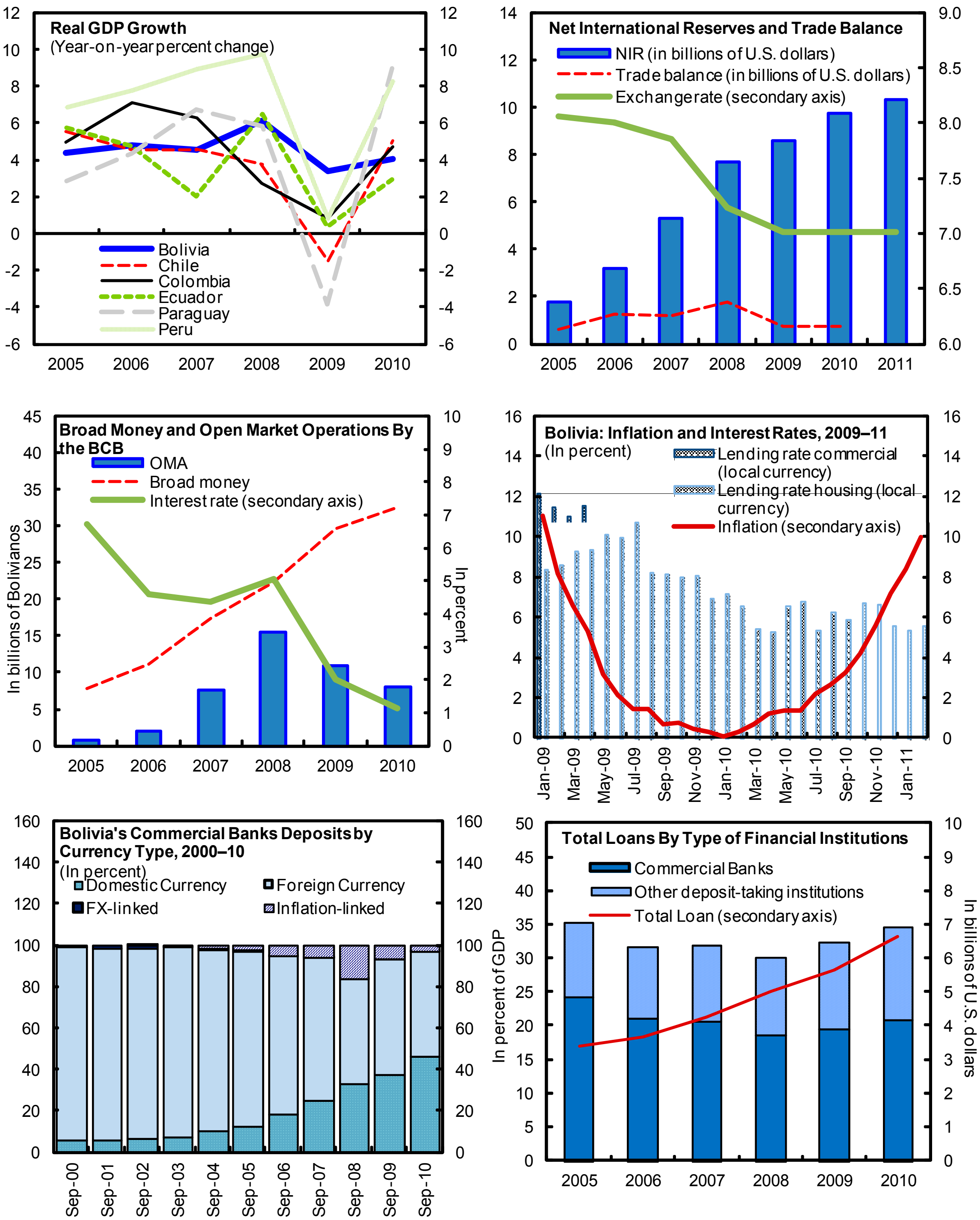
[3]This represents 20 months of imports, more than 10 times total short term debt and/or 100 percent of deposits in the financial system.

Figure1. Bolivia: Macroeconomic Developments, 2005–2010



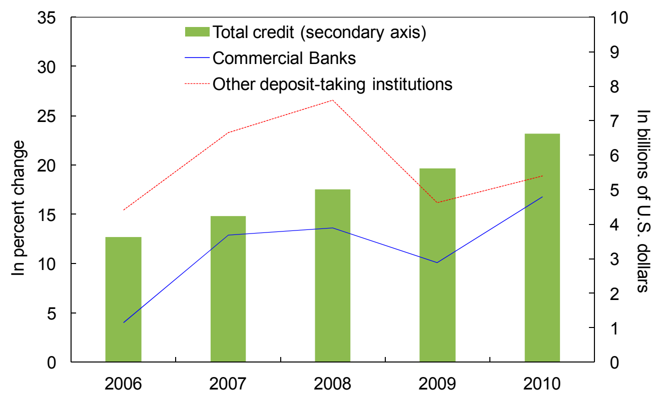
Sources: Bolivian authorities; World Economic Outlook Database; and IMF staff estimates.

- *A significant reduction in dollarization* was supported by the currency's appreciation, low international dollar interest rates, and administrative measures. The share of foreign currency deposits has dropped from 80 percent in 2002 to less than 50 percent in recent times, the lowest rate in over 20 years. The decline was encouraged by a financial intermediation tax on FX operations, higher reserve requirements on foreign currency deposits, tight limits on banks' net open position in FX, low limits on the share of foreign assets in total assets, and a differentiated interest rate for FX refinancing operations at the central bank.

- *Ample domestic liquidity*, generated by the partial monetization of international reserves and policy rates close to zero, has supported demand and credit growth. Compounded by sharp increases in external agricultural prices, inflationary pressures have been rekindled in late 2010 and early 2011, with headline inflation at 11 percent, while real lending rates have turned sharply negative. Since 2008 the authorities have been using the exchange rate to anchor inflation expectations.[4] However, these efforts appear to have been undermined by gasoline price increases in December 2010, which were later repealed.

- *Credit growth has accelerated.* Lending to the private sector by the financial sector has averaged 16 percent since 2007, reaching 18 percent in 2010 (Figure 2) supported by low interest rates and policy measures supporting lending to key sectors and boosting.

Figure 2. Bolivia: Credit Growth By Type of Financial Institution, 2006–2010



Source: Banco Central De Bolivia

4. **Short-term growth prospects are favorable, but inflation may remain elevated if macroeconomic policies are not adjusted.** In line with the regional rebound and still positive terms of trade, real GDP growth is projected at 4.5 percent in 2011, with the external current account and the fiscal position both in surplus. However, ample liquidity and negative real interest rates may fuel excessive credit growth and higher inflation in the future.

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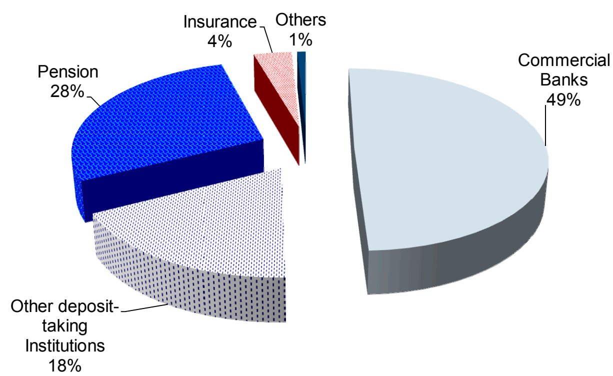
[4] The exchange rate formally follows a crawling-peg regime with no pre-determined path.

II. Structure and Vulnerabilities of the Financial System

A. Financial System Structure

5. **The financial system is dominated by commercial banks, pension funds, and a variety of other deposit-taking institutions.** About 50 percent of the financial system's assets are held by commercial banks; 28 percent by the new pension fund; and 18 percent by other deposit-taking institutions, such as *fondos financieros privados* (FFP); credit cooperatives (*cooperativas*), some of which are in the process of being brought under formal supervision; and mutual credit associations (*mutuales*), which provide mortgage financing (Figure 3).[5]

Figure 3. Bolivia: Financial Sector Structure
(In percent of total assets)



Source: Bolivian authorities.

6. **Commercial banks are moderately concentrated and largely domestically owned with small nonbanking interests.** Foreign ownership in the banking sector is limited to 15 percent of total bank assets and concentration is moderate.[6] Some banks are part of financial groups that include an insurance company, a brokerage company, and an asset management fund, but nonbanking activities typically represents less than 10 percent of the groups' assets.[7] There are two public banks: *Banco Unión* and *Banco de Desarrollo Productivo* (BDP), which is a small second-tier bank—that hold 7 percent and 1.5 percent of total banking sector assets, respectively.

7. **Bolivia has a vibrant microfinance industry and an increasing number of institutions are being brought under formal supervision.** Microfinance lending is mostly undertaken by FFPs, although the larger institutions have obtained a full commercial banking

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[5] ASFI is the supervisor for commercial banks and other deposit-taking institutions.

[6] The estimated Hirschmann-Herfindhal Index (HHI) of 1,347.

[7] On an unconsolidated basis.

license.[8] The most successful microfinance institution now accounts for 8 percent of domestic credit (up from less than 3 percent in 2003). Other deposit-taking institutions, such as the cooperatives and the mutual credit associations are historically specialized by loan type but are becoming increasingly diversified.[9]

8. **Securities markets do not represent a significant source of private sector financing**. The stock market is small with market capitalization of just US$3 billion (about 15 percent of GDP), among the lowest in the region. Debt securities represent by far the largest share of issuances and traded securities. Turnover is concentrated in bank-issued certificates of deposit, *Depositos a Plazo Fijo* (DPFs). The equities market is shallow, concentrated in equities issued by public sector enterprises, with yearly turnover representing 0.3 percent of the market capitalization.

9. **The institutional investor base is being transformed by the pension reform**. The two private pension funds are going to be replaced by a single publicly-managed pension fund. Its total assets will amount to 28 percent of GDP, thus becoming a key source of funding for the government and the banking system. Investment and insurance companies represent only about 5 percent of the market. Investment portfolios are generally concentrated in public sector-issued securities[10] and DPFs (Table 2) with a very low share, typically less than 5 percent, of private sector-issued debt.

Table 2. Bolivia: Pension Portfolio Distribution

	2005	2006	2007	2008	2009	2010
	(In percent)					
Government Paper	70	74.8	72.4	68.5	62.7	57.5
Long Term Bonds	12.8	8.9	8.1	7.8	6.7	10.3
Bank Bonds (Traded)	0	0	0	0.5	0.7	0.9
Municipal Bonds	0	0	0	0.2	0.2	0.2
Closed Funds	0	0.2	1	1.1	1.2	1.5
DPFs (Traded)	6.8	11.1	14.6	14.3	20	23.7
Other Fixed Income	0.7	0.4	0.4	3.8	4.8	4.6
Shares	6.3	0.1	0	0	0	0
Time Deposits	2.5	2.7	2.2	0	0	0
Cash	0.9	1.9	1.2	3.7	3.7	1.3
Total Assets Under Management (in millions of US$)	2,060	2,299	2,910	3,885	4,626	5,311

Source: Bolivian Authorities.

[8]The three commercial banks dedicated to microfinance credit are Bancosol, Banco de los Andes, and Banco de las Incitiavas Economicas.

[9] FFPs have traditionally directed their activities to SMEs. Mutual credit associations have exclusively financed mortgage housing, and cooperatives have focused on consumer loans.

[10] Including by public enterprises

10. **The insurance market is small and highly concentrated** (Table 3). With US$205 million in gross premium income (GPI) in 2010, it is one of the smallest insurance markets in the region. Nonlife and life companies operate in the market with a penetration of 0.9 percent and 0.3 percent of GDP respectively, and insurance density of only US$16 and US$5 per capita.[11] About 60 percent of the market is controlled by three companies, part of financial conglomerates, while one third of the market is represented by small family-owned companies.

Table 3. Bolivia: Insurance Market Summary Indicators

	2004	2005	2006	2007	2008	2009	2010
Penetration	1.8	1.8	1.6	1.2	1.1	1.2	1.2
Life	0.8	0.8	0.7	0.3	0.3	0.3	0.3
Non Life	1.1	1	0.9	0.9	0.9	0.9	0.9
Density (in U.S. dollars)	18	18	19	16	19	21	20
C2 1/							
Life	Na	74	73	59	56	57	55
Non Life	Na	62	61	59	52	48	46
HHI 2/							
Life	Na	3,724	3,720	2,302	2,174	2,212	2,250
Non Life	Na	2,294	2,288	2,322	2,040	1,990	1,940

Source: Staff computations based on Bolivian authorities' data.

1/ C2 represents the two largest companies assets over total assets.

2/ Hirschman-Herfindahl Index

B. Commercial Banks

Performance

11. **Following deep distress in 2003–04, strong economic performance has allowed the banking sector to improve profitability and strengthen its capital base (Figure 4, Table 4).** Not directly affected by the international crisis, the banking sector has remained profitable and net-interest margins have been stable and high since 2008, and in line with other countries (Figures 5 and 6).[12] Banks have restructured their corporate loan portfolios and complied with provisioning requirements for restructured and nonperforming loans. The system had an average CAR of 12 percent at end-2010 against a 10 percent regulatory minimum.[13] While several public funding schemes supported the banks through the crisis by providing

Table 4. Bolivia: Banks Revenue, Costs, and Return on Average Assets, 2003–10
(In percent)

	Dec-03	Dec-04	Dec-05	Dec-06	Dec-07	Dec-08	Dec-09	Dec-10
Revenue from Interm.	6.5	6.4	7.6	7.7	8	8.4	7	6.1
Cost from Intermediation	-2.7	-2.1	-2.5	-2.6	-2.7	-2.8	-2.7	-1.4
Net income from Noninterm.	1	0.9	1.2	1.6	1.9	2.8	2	2.1
Valuation Adjustments	2.3	2.3	1.6	1.3	0.8	1.9	1.7	2.2
Total Gross Income	**7.2**	**7.5**	**8**	**8**	**7.9**	**10.2**	**8**	**8.9**
Personnel Cost	-1.5	-1.5	-1.8	-1.9	-1.9	-2	-1.8	-2
Administrative Cost	-2	-2.1	-2.4	-2.3	-2.3	-2.4	-2.1	-2.2
Loan Loss Provisioning	-3.4	-3.2	-2.4	-2.1	-1.8	-3	-2.2	-2.9
Other Costs	0	-0.5	-0.3	-0.3	0.2	-0.8	-0.3	-0.2
Pretax Return on Assets	**0.2**	**0.2**	**1**	**1.5**	**2.1**	**2.1**	**1.6**	**1.6**

Source: Bolivian authorities.

[11] Gross premium income (GPI) over GDP.

[12] Although, significant variations may be observed among the returns of individual institutions

[13] Capital is defined as Tier I and Tier II. CAR ratios are computed as total capital over total risk-weighted assets. Subordinated debt only represents 10 percent of the total capital of the banking system, while Tier I capital averages 80 percent of total capital. Some minor deviations persist with respect to international practices

(continued)

subordinated debt, these liabilities have mostly expired.[14] Leverage has increased recently as a result of the recent rapid credit growth.

12. **The banking sector appears fairly efficient and competitive, broadly in line with regional peers (Box 1).** Most banks in Bolivia were found to be efficient, as measured by standard econometric techniques, although, commercial banks were found to be slightly more efficient than microfinance banks. Average competitiveness, as measured by the H-Statistics, was estimated to reach 0.65, which is somewhat higher than that of Paraguay (0.61), while slightly below the Latin American average (0.76). However, the banking sector in Bolivia appears to be more competitive than banking sectors in other regions, such as East Asia, Middle East & Northern Africa, and Sub-Saharan Africa.[15]

13. **Credit quality indicators appear strong**. NPLs have been declining markedly and reached 2.2 percent at end-2010, in part because the recent high credit growth.[16] At the same time, provisioning coverage for NPLs has been steadily growing, reaching 200 percent at end-2010. The provisioning coverage for high-risk loans also appears strong (Table 5).

Table 5. Bolivia: Private Pension System Summary Indicators

(In percent)

	2005	2006	2007	2008	2009	2010 1/
Funds' Administrators	2	2	2	2	2	2
Contributors (in thousands of U.S. dollars)	497	508	510	513	558	584
Percent of labor force	12.3	13.3	13.3	12.8	13.4	13.5
Retired (in thousands)	4	9	13	20	25	29
Disability (in thousands)	5	6	8	9	10	11
Assets under management 2/	2,060	2,299	2,910	3,885	4,626	5,311
In percent of GDP	22	20	22	23	27	30

Source: Bolivian authorities.

1/ As of October 2010.

2/ Individual Accounts.

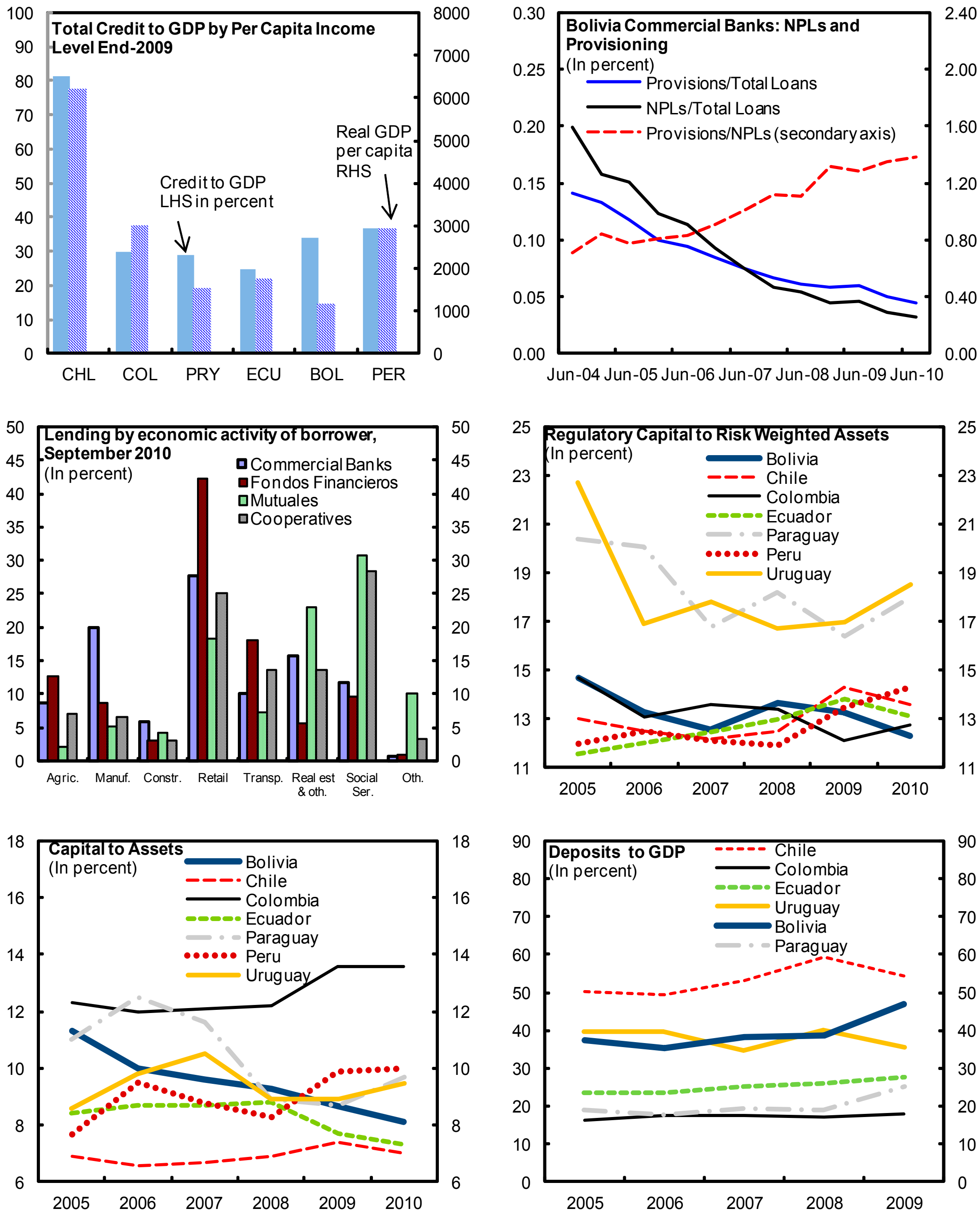
for computing CAR ratios, in particular with respect to the treatment of subordinated debt, which is subject to a weighting factor depending on the increase in the loan portfolio since June 2009.

[14] The main public funding scheme was the “Fondo de Apoyo al Sistema Financiero.”

[15] H-Statistics values close to one indicate perfectly competitive behavior while negative values indicate monopolistic behavior (see Box 1 for further details).

[16] As a result of the increased lending, the denominator of the ratio increases therefore lowering the share of NPLs.

Figure 4. Bolivia: Financial Developments, 2004–10



Sources: Bolivian authorities; World Economic Outlook Database; World Bank Development Indicators; and IMF staff estimates.

Box 1. Competitiveness and Efficiency of the Bolivian Banking System

Competition

Some evidence of monopolistic competition was observed in the banking sector. The H-Statistics developed by Panzar and Rosse (1987) assigns a value to the level of competition between agents in specific industrial groups. Values close to one indicate perfectly competitive behavior while negative values indicate monopolistic behavior. In all other cases, commonly referred to as monopolistic competition, the H Statistic will take a value between zero and one. The estimated long run value of the H-statistics for Bolivia was 0.65 (for 2003–10), which compares to a score of 0.61 recently computed for Paraguay (using the same methodology). If compared to results of recent cross-country study (WB Policy Research WP No. 5363), Bolivia's banking sector would appear to be less competitive than the average of Latin America (0.76 in that study) but still more competitive than banking systems in other regions, such as East Asia, Middle East & Northern Africa, and Sub-Saharan Africa. However, competition appears to have declined recently, as the H-Statistic for the sub-period of 2007-10 was estimated to be 0.61.

Efficiency

Most banks were found to be close to the efficiency frontier. Two different standard techniques were applied, Data Envelopment Analysis (DEA) and Stochastic Frontier Analysis (SFA). Both methodologies translate the "distance" of each bank from a theoretical efficient frontier into an efficiency score. The two methods yield broadly similar results in the case of Bolivia, with most of the banks found to be close to the frontier. The dispersion of results was found to be highest across banks operating in different segments of the market e.g. commercial banks and microfinance banks. DEA also decomposes efficiency in three sub components: technical efficiency, cost efficiency, and scale efficiency. Technical efficiency was found to be highest among Bolivian banks, with six of the twelve banks being very close to the efficient frontier. The biggest differences were found in estimates of cost efficiency, implying that some banks have a suboptimal input mix with respect to the relative prices of inputs. Microfinance banks were found to have the lowest cost efficiency, as expected, given the high personnel requirements of the microfinance business. Finally, an analysis of productivity based on DEA results suggests that productivity increased during 2006-08 but then dropped subsequently.

Table 1. Bolivia: Bank Efficiency Results for 2010 based on DEA
(In percent)

	Technical Efficiency	*Allocative Efficiency*	*Scale Efficiency*
System Average	91.8	77	89
Commercial Banks	93.9	84.6	88.8
Microfinance Banks	96.8	43.9	82
Small Foreign Subsidiaries	77.1	100	99.8

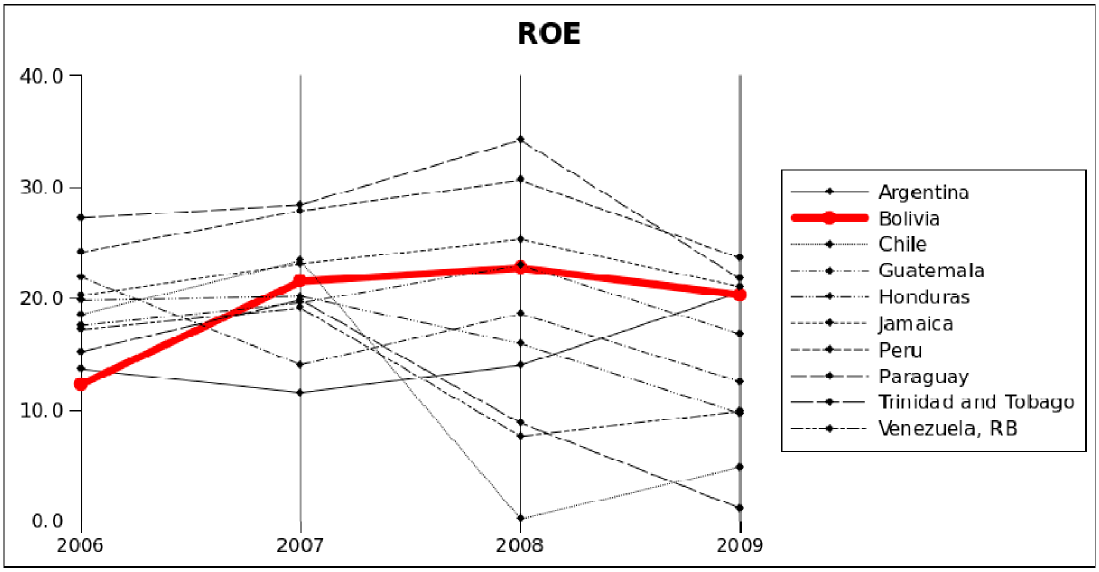
Source: Fund staff calculations.

Table 2. Bank Efficiency Estimates for 2003–10 based on SFA
(In percent)

Efficiency Score:	*Overall*	*Commercial*	*Microfinance*
2003-10	91.8	92.6	89.8

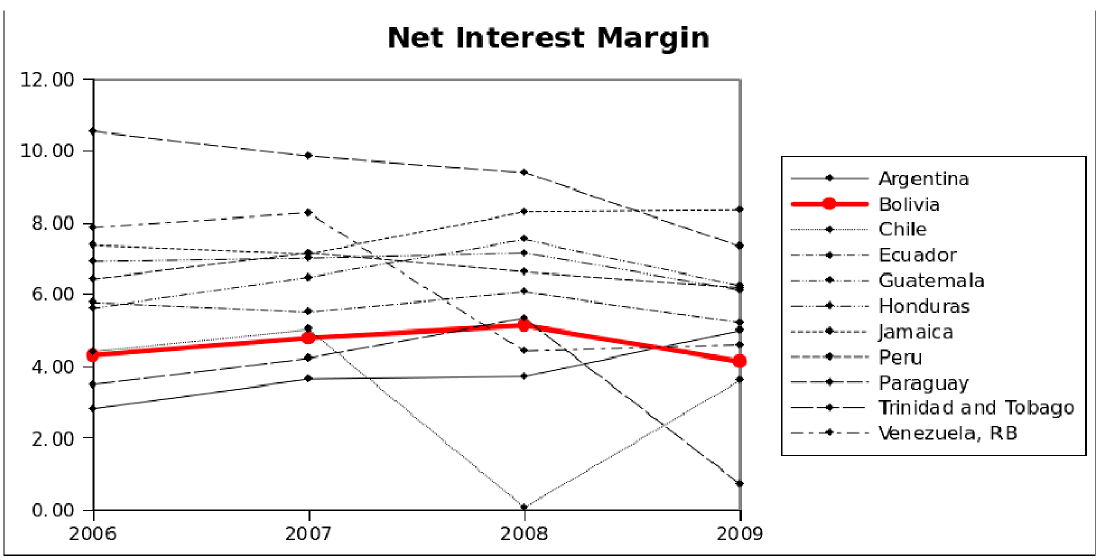
Source: Fund staff calculations.

Figure 5. Bolivia: Bank ROEs—Select Countries



Source: FinStats/Bankscope—Bureau Van Dijk.

Figure 6. Bolivia: Bank Net Interest Margins—Select Countries



Source: FinStats/Bankscope—Bureau Van Dijk.

Key risks

14. **While currently sound, loan books exhibit a number of vulnerabilities**:

- *About half of the loans are either indexed to the TRE and the other half denominated in foreign currency.* The servicing of these loans would become increasingly difficult if the TRE responded sharply to the recent increases in inflation or if the currency depreciated.

- *Provisioning requirements have been reduced* for loans in fair standing directed to the "productive sector",[17] which represent about 34 percent of the loan portfolio,[18] thereby reducing banks' buffers to withstand potential losses.

- *Data availability constrains underwriting*. There is limited information in financial statements and no centralized credit database. The borrower database maintained by ASFI with loan performance information (CIRC) does not capture consumer loans or risks from nonregulated institutions, while the credit bureaus, which include consumer loans, do not capture the performance of commercial loans. The scope of the operations of the credit bureaus should be reviewed to provide a centralized credit database.

- *A high share of loans is collateralized by real estate*, the value of which may have been inflated in recent years.[19]

- *Large loans are extended to a limited number of borrowers,* reflecting the limited diversification of the economy, thereby exposing banks to idiosyncratic shocks.[20]

15. **Banks' liquidity is currently sufficient to face a short-lived deposit outflow, but structural factors increase vulnerabilities (Table 6).** Liquid funds represent 25 percent of total banks' assets, and, if combined with mandatory reserve requirements (see below),

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[17]Defined by ASFI as agriculture, fisheries, mining, petroleum, electricity, manufacturing, and construction.

[18] There are no longer required specific provisions for new domestic-currency loans to the productive sector in the lowest risk category. Previously, 1 percent of the loan value had to be put aside. At the same time, provisions for loans over 30 days overdue, or where the borrower shows difficulties in payments, have been halved to 2.5 percent.

[19] Unfortunately there is no real estate index, nor data on housing prices. However, indicators of activity in the real estate sector have been rising rapidly: the index of construction activity has been growing at a rate above 10 percent for the last two years and total banks' loans to the construction and real estate sector have been growing close to 20 percent in the past three years.

[20]About 35 percent of total bank loans are extended to 0.3 percent of borrowers.

available liquidity averages 43 percent of total assets. Despite this solid position, the system remains vulnerable to:

- *The concentration of deposits in large, short-term accounts*,[21] which increases vulnerability to rapid withdrawals;[22]

- *Changes in the allocation of deposits by the newly created public pension fund*; the current deposits of the two pension funds amount to around 20 percent of total bank deposits, and represent an important source of funding for the banks. Any significant change in the allocation of current investments, although not currently envisaged, would generate liquidity pressures across the system;[23] and

- *Statutory reductions in the mandatory reserve requirements;* according to recently enacted regulations, increases in domestic currency loan portfolios are deducted from mandatory reserve requirements in local currency, thereby reducing liquidity buffers.[24]

Table 6. Bolivia: Total Liquid Assets of the Financial Sector

	Immediate Liquidity 1/	Invest. Abroad	RAL 70 percent	Repo securities BCB-TGN	Other Repo Securities	Total liquidity through BCB Operations	Total liquid assets	Deposits	Coverage
Banks	1861.8	204.1	376.1	904.3	160.8	1441.2	3507.1	7739	45.3
Mutuales	22.7		29.6	70	90.9	190.5	213.2	425	50.2
Cooperatives	36.2		36.8		15.9	52.7	88.9	443	20.1
FFPs	127.6		27.9	0.7	16.1	44.7	172.3	683	25.2
Total	2048.3	204.1	470.5	975.1	283.7	1729.2	3981.6	9290	42.9

Source: Bolivian authorities
1/ As of March 2011.

[21] Deposits represent 80 percent of banks' liabilities.

[22] Close to 50 percent of total deposits are held in accounts larger than US$200,000, corresponding to less than 2 percent of the total bank accounts. The level of per capita GDP of Bolivia is about US$2,000.

[23] Deposits of the municipalities are currently held by the BCB, which may place them with private banks. Liquidity risk from such deposits is minimal.

[24] For purposes of computation of mandatory reserve requirements, any increase in the loan portfolio above the level at June 2009, can be deducted from the computational base. As a result, while the theoretical reserve requirement for domestic currency deposits is 13 percent, the effective reserves are 6 percent.

16. **Dollarization also leaves the system exposed to shifts in depositor confidence and exchange rate shocks, risks that may be compounded by recent regulations**. Banks' currently have long dollar positions which are helpful to offset limited increases in FX liabilities. However, partial dollarization exposes the banks to sudden shifts in depositors' confidence which may generate a sudden increase in FX deposits. This risk is compounded by recent regulations which limit banks' ability to acquire assets abroad. In case of a shock that creates abrupt increases in net open positions, these regulations actually reduce banks ability to comply with net open position rules and increase the likelihood of losses in the event of a depreciation.[25]

Stress tests

17. **The impact of macroeconomic shocks on NPLs was estimated using dynamic panel data models.** A first set of regressions yielded estimates for the impact of macroeconomic variables on banks' impairments by applying the System GMM estimator developed by Arellano and Bover.[26] Stress tests were then devised by assuming specific macroeconomic shocks and, using the results from the regressions by translating them into forecasts for provisions, other major items in the banks' income statement and, ultimately, CARs. However, the absence of detailed data for a sufficiently long period of time constrained the breadth of the analysis.

18. **The banking sector appears to be resilient to an economic downturn.** The estimated direct impact of a downturn in economic activity and of a temporary drop in commodity prices on credit risk was found to be limited, although a permanent downward shock to commodity prices would likely have a much deeper impact through negative wealth effects. The resilience of the system is supported by the initial CARs and newly introduced countercyclical general reserves, which can be accessed after six months of consecutive increases in the system's NPLs.[27]

19. **However, loan portfolios are vulnerable to credit risk.** Banks have successfully managed the duration of assets and liabilities and their net FX exposures are limited. However, floating rate and FX indexed loans represent a key source of risk as they may generate a sudden increases in debt service burdens of unhedged borrowers—following a sharp increase in interest rates or a depreciation—and thus an increase in impairments. In

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[25] Should there be a sudden increase in FX-denominated deposits, the banks would immediately have insufficient capital to comply with NOP regulations.

[26] The set of explanatory variables was: GDP, indices of economic activity by sector, bank-specific lending rates, inflation, commodity prices, and the trade balance.

[27] Counter-cyclical provisions reduce the amount of capital needed to absorb losses from increased impairments by about ½ percentage point, if NPLs for the system have been increasing for two consecutive quarters.

addition, large exposures to the real estate sector and to a limited number of borrowers have the potential to increase distress. In particular (Table 7):

- *A normalization of the real lending rates* in response to inflationary pressures would have a significant impact on impairments. Assuming the TRE would rise to 16 percent to match end 2012 inflation, the debt service burden of floating rate loans would increase sharply. This, in turn, would cause impairments and an estimated amount of US$53 million in additional capital resources would be required for the system to comply with minimum CAR regulations (average 2.6 percentage points shortfall for the 4 banks below minimum CAR).

- *The default of the five largest borrowers* would require US$70 million in additional capital resources to comply with the minimum CAR requirement (average 2.4 percentage points shortfall for the 6 banks below minimum CAR).

- *A depreciation of the nominal exchange rate* by 10 percent, in an extreme scenario, would cause the NPL ratio to rise to 8 percent, and put over half of the banks under stress and require US$36 million in additional capital resources to comply with minimum CAR requirements.

- *A sharp correction in the housing market* —e.g., a drop in real estate activity by 30 percent—would generate a shortfall from the minimum CAR equivalent to US$168 million (average 2.3 percentage points shortfall for the 9 banks below minimum CAR).

C. Other Deposit-Taking Institutions

20. **Other deposit-taking institutions generally display low NPLs and adequate provisions (Table 5).** Average CARs for FFPs, mutual credit associations, and cooperatives are 11 percent, 41 percent, and 21 percent, respectively. Provisions are high relative to NPLs, suggesting resilience to credit risk. All of the sub-sector and, in particular, FFPs, has experienced rapid credit growth (30 percent in recent years) and an increase in leverage, reflecting government policies supporting credit.

Table 7. Bolivia: Stress Tests Results 1/

	Capital Adequacy Ratio			NPLs			Capital Shortfall (Millions US$)	Banks below min. CAR	
								Number	In percent of banking
	Dec-10	Dec-11	Dec-12	Dec-10	Dec-11	Dec-12	Dec-12	Dec-12	Dec-12
Baseline Scenario	11.7	11.7	12.1	3.2	1.8	1.3	0.0	0	0
Single Factor shocks:									0
Credit Risk									0
1) General Economic Decline [2/]	11.7	12.0	11.9	3.2	2.2	2.6	0.0	0	0
2) Commodity Price Shock [3/]	11.7	12.0	11.7	3.2	2.4	1.7	0.0	0	0
Credit Concentration Risk:									
3) One-notch Downgrade of Large Debtors	11.7	11.5	…				0.0	0	0
4) Two-notch Downgrade of Large Debtors	11.7	10.6	…				13.1	3 [4/]	22.8 [4/]
5) Default of 5 Largest Debtors	11.7	9.4	…				70.6	6 [4/]	51.4 [4/]
Foreign Exchange Risk (indirect credit risk):									
6) 10% Depreciation	11.7	9.8	…	3.2	5.9	…	36.7	5	46.6
Liquidity Risk:	Liquidity Ratio at 30-day horizon: 38 percent.								
7) 3% Deposit Outflow per Day	Days of Liquidity Coverage: Average 12- Lowest 8.								
Multifactor shocks									
8) Inflation and Interest Rate Shock	11.7	12.6	9.9	3.2	3.4	5.5	53.2	4	26.7
9) Housing market crash and economic downturn (as in 2003)	11.7	11.6	7.5	3.2	4.9	12.3	168.4	9	72.3

Source: Fund staff calculations and estimates.

1/ The regressions included loan portfolios for six commercial banks, representing 90 percent of the banking system, broken down in seven sectors; agricultu mining, manufacturing, construction, commerce, households, and public entities over a sample period of 2005: Q2 to 2010: Q2.

2/ A decline in GDP of 1.5 percent each year for two years consistent with a global recession.

3/ decline of up to 50 percent within two years consistent with two standard deviation of the commodity price index.

4/ As of December 2011.

21. **Key risks for the subsector are**:

- *Rapid credit growth,* with rates averaging 20 percent over the last four years, could reduce the quality of loans. Loan origination procedures in the subsector are hampered by poor data availability and inadequate risk management systems.

- *The valuation methodologies for collateral assets,* which are complex, given the high degree of informality and the scarcity of data collected.

- *Significant concentration risk*. In particular, mutual credit associations have accumulated large risk exposures to the construction sector.

- *Liquidity risk.* Mutual credit associations and cooperatives in particular, have relatively low liquidity levels. The sector, in general, has limited access to the interbank market and a low share of assets eligible for ELA (Table 6). Institutions in the interior of the country have difficulty in maintaining stocks of currency in times of distress, a weakness that authorities have been trying to address.[28]

[28] Following the bank run in December 2010, the BCB has been making arrangements to improve the stocking of bills outside the capital, including by planning a branch of the central bank in another large city.

22. **Sensitivity tests conducted on balance sheet data suggest that FFPs have the weakest capital base.** All cooperatives and mutual credit associations are sufficiently capitalized to withstand a doubling of the NPL ratio to 6 percent and would remain above the 10 percent capital threshold. However, the aggregate CAR for the FFPs would fall below the minimum requirement.

D. Insurance Sector

23. **The insurance sector is profitable.** A low proportion of premium income paid on claims (average loss ratio of 46 percent) and investment returns, outweighs large underwriting costs (average expense ratio of 50 percent), resulting in positive profitability.

Key risks

24. **Retention capacity and reserves are low, but companies maintain a large surplus relative to the required solvency margin.** Minimum capital requirements are set rather low at DEG 750,000 (US$1.2 million),[29] limiting retention capacity. In addition, reserve adequacy is negatively affected by:

- *The heavy use of reinsurance*, which exposes companies to credit risk;
- *The practice of forming unearned premium reserves (UPR) only on a fraction of GPI*, which exposes companies to insolvency risk;
- *The lack of actuarial skills,* which prevents companies from, inter alia, defining the appropriate level of incurred but not reported (IBNR) claim reserves; and
- *The absence of published statistical information on risk distributions,* which constrains risk-modeling and risk management.

Own funds are around 200 percent of the required solvency margin and could provide a large buffer against unexpected losses, although no stress testing was conducted. However, these funds are not subject to the same investment rules applicable for assets admitted in representation of liabilities and, therefore, they may not be available in case of need. To assess the adequacy of reserves and reinsurance arrangements, authorities were encouraged to carry out a detailed study.

25. **Finally, asset-liability mismatches are likely among life insurers**. Investments are concentrated in short-term government debt with substantial maturity mismatches in the life business with longer-term liabilities.

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[29]DEG: Derechos Especiales de Giro. As of March 9, 2011, USD/DEG = 1.57821.

E. Pensions

26. **A publicly managed pension fund will replace the two existing private pension funds by the end of 2011.** The public fund will manage the old individual accounts, annuity and disability funds, together with a new social pension fund aimed at increasing the replacement rates of low-income earners.

27. **The defined-contribution pillar will be maintained after the reform is fully implemented, but it is exposed to a number of risks**. Under the reformed system, the defined contribution pension scheme retains some insurance risk which is exacerbated by the use of outdated mortality tables.[30] This risk should be auctioned out to insurance companies.[31]

F. Market Infrastructure

Markets and systemic liquidity

28. **The BCB controls liquidity in the system through mandatory reserve requirements and open market operations (OMOs).** Reserve requirements can be complied with in cash[32] to certain minimum levels, and in securities, which constitute the "Requerimiento de Activos Liquidos" (RAL) and can be withdrawn under certain conditions (see below).[33] OMOs are conducted through placement of BCB securities, collateralized lending operations, and direct placements with the public. Interest rates for refinancing operations are set by currency by BCB's Open Market Operations Committee (COMA) and are considerably more penal for FX operations. The volume of OMOs has significantly declined since 2008, as the BCB has withdrawn from the market, including from FX operations, leaving the outstanding securities to gradually expire.

Payments system

29. **Bolivia has made significant progress in modernizing its National Payments System (NPS) over the last several years.** A major improvement was the introduction of Real Time Gross Settlement System (RTGS) in 2004. Known as the High-Value Payments

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[30] The reform modified pension variable annuities by introducing annual re-pricing of the annuities as a function of investment and mortality performance. This significantly reduces but does not fully eliminate insurance risk.

[31] Given the "strategic" nature of the pension industry, this is planned to be transferred to a state-owned insurance company.

[32] Following the run in December 2010, the mandatory cash component in FX reserve requirements was increased.

[33] Compliance in excess of minimum requirements has recently been disallowed by the BCB, as banks were using the RAL as a treasury instrument to manage excess liquidity.

System (SIPAV), it is the backbone of the payments system.[34] Due to the high volume of payments that it settles and its unique position as sole entity to provide settlement in central bank accounts, SIPAV is considered a systemically important payments system. While SIPAV is broadly in observance of most Core Principles for Systemically Important Payments Systems (CPISIPS), some key issues are yet to be adequately addressed:

- its legal basis includes the main features of a modern payments systems,[35] but the absence of a Payments System Law, which is currently being drafted, is an important shortcoming;
- access to SIPAV is restricted to entities either supervised by ASFI, or discretionarily authorized by BCB's Board of Directors;
- there is presently no formal consultation mechanism, such as a National Payments Council, to ensure that all parties are consulted and informed on decisions affecting the design and operations of the NPS;
- there is no formal cooperation mechanism with ASFI; and
- BCB's oversight is not yet fully separated from the system's operation.

30. **The BCB is currently working on a new integrated payments settlement system, Sistema de Liquidacion Integral de Pagos (LIP), which will improve the interconnection between the various subsystems of the NPS.**

31. **There is only one clearing house for checks (CCC), managed by a private company owned by banks (ACCL) and the Association of Private Banks of Bolivia (ASOBAN).** Checks are not primarily retail payment instruments, and are used mainly for commercial transactions between companies.[36] There is also an automated clearing house (ACH) for transfers and direct debits also managed by ACCL, which started its operations in 2006, but volumes still remain low. Over time, the authorities hope to transfer the operations of the CCC to either the ACH, or to SIPAV.

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[34] It provides settlement services for the Cheques Clearing House (CCC), the Automated Clearing House for Direct Debits and Transfers (ACH) for credit transfers and direct debits, the treasury accounts (SPT), and the central securities depository (EDV).

[35] BCB Resolution 131/2009.

[36] The average value cleared at BCB is fairly high (averaging between US$3,800 and US$5,550 during 2005–09).

32. **The central securities depository (EDV) handles government and corporate securities, and provides DVP services, settling at the RTGS in T+0.** The system has introduced mechanisms to manage credit risk, but it is still lacking a liquidity facility.[37]

33. **Two networks managing credit and debit card transactions are expected to join SIPAV in the near future.** They are technically interoperable, but there is no sharing of Point of Sale (POS) and ATMs infrastructure, and cardholders are discouraged from using the competing network. Nevertheless, the use of debit cards has been steadily increasing.

34. **The disbursement of international remittances in the country is operated mainly through banks, but nonsupervised entities, such as money transfer operators, are also active.** These entities should be supervised, as they might pose the risk of noncompliance with AML/CFT requirements, and leave consumers without protection in case of default, fraud, or mismanagement.

III. Strengths and Challenges of the Regulatory and Supervisory Frameworks

A. Macro Prudential Framework

35. **There is currently no macro prudential policy framework in place.** In the absence of a more formal framework, the capacity of the BCB in this area would be enhanced by closer monitoring of the corporate and household sector balance sheets, as well as of housing and real estate market developments. Household and corporate indebtedness continues to increase, encouraged by the low interest rate environment. A residential property retail price index could be developed to monitor price developments in the real estate sector.

B. Regulation and Supervision

36. **Since 2004 the supervisory framework has been strengthened, but the new constitution approved in 2009 has changed the role of the supervisory authorities.** Notably, social policy objectives have been introduced into the regulatory and supervisory framework. Provisioning requirements have been reduced to foster lending to key sectors of the economy, but they have been weakening prudential buffers.

37. **Legal protection of supervisors, while discharging their functions, is essential to ensure operational independence and effectiveness of supervision.** The legal protection of supervisors was lifted after the enactment of the law on combating corruption and illicit enrichment. Consequently, civil, administrative, and criminal actions can be brought against ASFI and AFP staff during performance of their duties.

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[37] "Mecanismo de Liquidación de Operaciones Retrasadas" (MELOR) and "Mecanismo de Liquidación de Operaciones Diferidas" (MELID).

38. **Supervisory authorities have not been provided with the resources needed to meet a growing workload and responsibilities.** The ASFI's mandate and scope of work has been significantly extended to include securities, newly supervised entities, and entities that are currently not regulated and/or supervised.[38] Supervision of compliance with AML/CFT regulations will also require the recruitment of additional and well-qualified staff, particularly for the Financial Investigations Unit (FIU). The insurance supervisory authority has only 24 professionals, including one of the four registered actuaries in the country. As a consequence of the low salary levels, the average turnover for middle-level staff is very high.

Banking regulation and supervision

39. **Since the last FSAP in 2004, Bolivia has moved toward aligning its regulatory and supervisory framework with international standards (Table 12).** The authorities have:

- clarified supervisory arrangements.[39] ASFI is now the authority to supervise deposit taking and capital market institutions, while the Pensions and Insurance Authority (APS) supervises insurance and pension institutions;

- issued important prudential regulations to strengthen the overall policy framework, including new requirements for liquidity, credit, and exchange risks; and

- amended presidential decrees so that banks are no longer allowed delays in complying with provisioning requirements.

40. **These changes have improved risk management standards and valuation methodologies for loans and financial investments.** The supervisory process has been strengthened by the adoption of a new inspection manual. In addition, the modernized off-site system allows ASFI staff to collect a significant quantity of data for ongoing surveillance.

41. **Compliance with international standards for effective banking supervision has improved in several areas, but there is room for further progress.** In particular:

- *The formal appointment of executive directors and legal protection from arbitrary dismissal would reinforce ASFI autonomy*. Recent ASFI executive directors have been appointed "*ad interim*" and there is no provision in the law that stipulates the conditions under which they can be dismissed;

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[38] *Casas de cambios, remittances, cooperativas societarias and development finance institutions (IFD).*

[39] The Ministry of Financial Services and the General Superintendence of the System of Financial Regulation (SIREFI) no longer exist.

- *Nonprudential factors should be removed from provision rules*. Exceptions on the provisioning requirements for loans to specific sectors of the economy should be removed. Although the exception is for performing loans, it is important that credit quality judgments focus on borrowers' creditworthiness;

- *Supervision and enforcement of AML/CFT standards should be strengthened*;

- *Regulations should be issued to add market risk (interest rate and foreign exchange) to capital requirements;*

- *ASFI's internal risk oversight processes should be strengthened* in aspects like operational, interest rate, as well as reputational risks;

- *ASFI's resources should be strengthened* to adequately cover the increased scope of supervision (62 *Cooperativas societarias* and numerous *casas de cambio* and remittances) and to formalize the supervisory cycle; and

- *Close collaboration with the industry* should be maintained when developing regulations to enhance the effectiveness of regulations.

42. **While progress has been made, the authorities need to address pending deficiencies in the national AML regime.** Illicit financial activities are allegedly related primarily to narcotics trafficking and smuggling. While progress is recorded in certain areas,[40] terrorist financing still needs to be criminalized. Without the latter, the identification, seizure, or freezing of terrorist assets is legally impossible. Supervision of compliance in banks, which is the responsibility of the FIU, is insufficient, while there is no supervision in other key nonbank financial sectors.[41] The autonomy, capacity, resources, and enforcement powers of the FIU need to be strengthened. Because of persistent strategic deficiencies in Bolivia's AML regime, the Financial Action Task Force (FATF) has decided in February 2011 to keep the country under close scrutiny.[42]

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[40] For instance, the type of criminal offences associated with trafficking of illicit substances, for public officers while discharging their functions, and for organized crime have been increased.

[41] C*asas de cambio*, remittances, and international wire transfer services.

[42] Bolivia was also excluded from the Egmont Group in 2008.

Regulatory framework for microfinance institutions and mutual credit associations[43]

43. **The regulatory framework for specialized credit entities is largely identical to that for banks, but imposes a high administrative burden.** The Banking Law (LBFI) and its regulations place restrictions for microfinance institutions and mutual credit associations on their foreign trade operations, capital investments in securitization companies, the administration of investment funds, and factoring and leasing operations. Significant information is required from and provided by these institutions seems adequate for surveillance.[44] However, the frequent regulatory and reporting changes in the past year have increased significantly the regulatory burden on small institutions.

Insurance regulation and supervision

44. **During the mission, the directorate for insurance supervision was in the process of being merged with the pension supervisory authority to form the APS.** The organizational structure of the APS had not been fully defined at the time of the mission. However, the legal capacity for prudential norms and supervisory intervention that was being provided to the legal department in ASFI will need to be reconstituted in APS. In addition, it appears that APS will have weaker operational independence: (i) the supervisory staff's salary scale weakened the capacity to train and retain specialized skills; (ii) APS's budget will be approved annually by the government; and (iii) the insurance operational budget may be insufficient if used to subsidize pension supervision, which lost its source of financing with the recent pension reform.

45. **Modernization of the insurance regulatory framework would help address some important deficiencies.** The main insurance law has not been updated since 1999, and provisions in many areas are still missing or are insufficiently regulated. In particular, priority should be given to improving:

- corporate governance rules for insurers, a project currently under review;
- information disclosure and supervision of sales channels;
- the calculation methodology of IBNR claim reserves for nonlife insurers; and
- powers of the supervisors to force restructuring, given that there is no special supervision regime for intervened companies.

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[43]In Spanish "Intermediarios No Bancarios."

[44]ASFI requires the monthly transmission of complete borrower information per financial entity.

46. **The off-site supervision function is well designed; however, the on-site supervision function needs strengthening.** Off-site supervision is supported by a well-designed system of early warning ratios and prudential indicators.[45] However, there would be merit in revising accounting standards, since balance sheets are currently prepared on a net-of-reinsurance basis, which is hindering the analysis of the actual risks. The on-site inspection function should be strengthened in terms of resources and training to formalize and adhere to a yearly inspection cycle.

Pension supervision

47. **The transition to the institutional arrangements provided by the December 2010 pension reform raises a number of issues.** The new framework has generated a conflict of interest between the APS and the public pension fund[46] as well as concerns about the operational framework. These issues need to be addressed through a strong focus on transparency and governance. This will require:

- strengthening the selection standards for the public pension fund directors to ensure that parliament selects reputable, qualified, experienced, and independent individuals;
- maintaining the existing strong investment framework to minimize, in particular, funding risks for banks;
- gradually diversifying at least 30 percent of the investment portfolio toward foreign securities, as planned, to reduce concentration risk; and
- maintaining the collection of contributions by the pension fund, possibly centralized with income tax collection, as this would greatly reduce the operational cost of the pension fund.

Securities supervision

48. **The regulatory pillars for the stock exchange and market participants have been completed but are in need of modernization.** The securities framework still does not provide for derivative contracts such as forwards, and there is a need to streamline procedures and administrative requirements for issuances, as well as to shorten the review time for public offers. In addition, supervisors could focus more specifically on transparency requirements.

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[45]Prudential ratios followed are minimum capital requirement, and solvency margin reserves adequacy, quality of reinsurance arrangements, underwriting performance, income, assets, and compliance with investment rules.

[46] The autonomous nature of pension funds reduces the conflict of interest inherent in a public agency supervising a state-owned company.

IV. Financial Safety Nets

A. Emergency Liquidity Assistance

49. **The ELA function of the BCB is broadly flexible and well designed.**[47] In circumstances of illiquidity, the BCB can provide loans guaranteed by the RAL (which, in essence, represents an authorization for banks to use their own reserves) and loans secured by eligible collateral.[48] The BCB's COMA determines the assistance conditions for the ELA, which will be provided at penalty rates, for a limited time, and against collateral. There is no predefined intervention limit.

50. **Rules on collateral eligibility limit the BCB´s capacity to provide ELA.**[49] Banks' loans are de facto not eligible for ELA because the BCB would lose any senior claim to the collateral received in guarantee if the institution is liquidated.[50] To enhance the BCB's intervention capacity, bank loans and senior participation notes issued by trusts funded by high quality loans should be included among eligible collateral, while amending Article 131 of Law 1488.

51. **The authorities have decided to decentralize the BCB treasury operations to service remote areas**. This will reduce operational risk in case of runs in remote areas, as experienced during the December 2010 run.

B. Crisis Management and Resolution of Distressed Financial Institutions

Bank resolution

52. **The legal framework for bank resolution is largely in line with best practices.** The LBFI gives ASFI the legal powers to carry out bank resolution, and with adequate tools. This generally follows a scheme of the type good-bank/bad-bank, using a special purpose vehicle (trust) to liquidate good assets and transferring the deposits to a sound financial institution, which will also receive a claim on the liquidation value of the good assets

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[47]The central bank has three different liquidity support instruments in its LOLR framework that are sequential in nature, but immediately accessible to credit institutions in need. The first, or regular, window for liquidity management can be accessed by financial institutions that provide treasury bills for refinancing up to 48 hours. The second window—consisting of banks' mandatory reserves held at the central bank—can be accessed by credit institutions upon authorization by the central bank. A third window provides ELA to credit institutions upon provision of a broad range of admissible securities up to 90 days. Access to the third window involves intensified supervision of the respective credit institutions.

[48]Art 36 of Law 1670.

[49] Resolution BCB 037/2003.

[50] Art. 131 of Law 1488.

recovered. The system has worked well in the past. Minor changes could be introduced in the legislation to streamline operational aspects, including removing provisions requiring equivalence of excluded asset and liabilities.

53. **The financial safety net needs to be strengthened through the addition of a number of provisions.** It currently has no provisions on (i) bank resolutions in situations that pose a systemic risk**;** (ii) the functions of the Financial Restructuring Fund (FRF) (see below); or (iii) ELA functions for a systemic situation. While specifying such provisions may heighten unduly the fiscal costs by increasing moral hazard, specific contingency plans should be made.

The Financial Restructuring Fund

54. **The FRF is an instrument solely for bank resolution, but its effectiveness may be weakened under the new constitutional framework.** The FRF is a fund managed by the BCB, which invests its resources in safe and liquid instruments. The Ministry of Finance, the BCB, and ASFI each appoint a member of the Board, thereby ensuring coordination by the three agencies. Regulations provide that the FRF can contribute up to 30 percent of the preferred obligations of an intervened financial intermediary to support the transfer of deposits to another institution during a resolution procedure (see above).[51] If FRF funds are insufficient, the BCB provides a liquidity backstop. However, the new constitution explicitly prohibits the BCB, together with public entities and institutions, from taking over the debts of the banks or private financial institutions. In this respect, the ability of the FRF to resolve distressed financial institutions would be greatly improved by clarifying the nature and the scope of a potential liquidity backstop.

55. **When FRF resources are insufficient, depositors would have to suffer losses.** The FRF resources reached US$196 million in December 2010 (or 2.2 percent of total deposits) (Figure 7).[52] However, the FRF funds cannot be used in cases of liquidation. Therefore, in all those cases in which either funds are insufficient or the institution is liquidated, depositors would have to suffer losses. Dollarization of deposits heightens such risk as depreciations of the currency may rapidly increase banks' liabilities.

56. **The crisis management framework would be strengthened by introducing an explicit deposit insurance scheme to be managed by the FRF.** The supervisory framework is sufficiently strong, and corrective actions are sufficiently enforceable, to support a deposit insurance system, and the FRF's resources and governance would seem adequate for this purpose. Expanding the functions of the FRF to become a full deposit guarantee fund for

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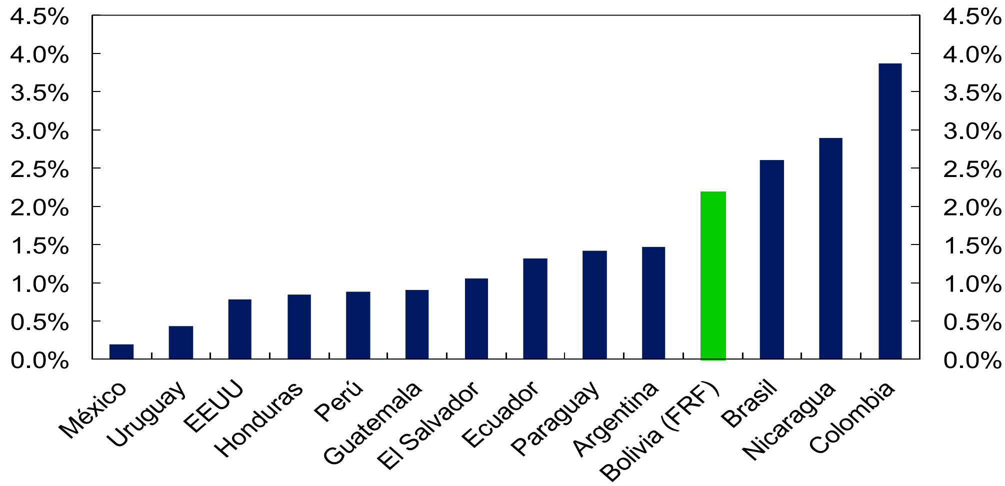
[51] The FRF resources can be used for any regulated financial institution.

[52] The annual flat contribution is 0.05 percent. Resources are in line with regional peers, but are insufficient for a medium-sized bank

retail depositors would reduce uncertainties and help strengthen the bank resolution framework.

Figure 7. Resources for Deposits Protection Function

(As of December 2010, in percent of total deposits)



Source: Based on BCB data and information from "Financial Safety Nets in American Countries" Fit & Proper Oct 2010. Bolivia´s data as of December 2010.

V. Key Developmental Issues

A. Financial Deepening

57. **The government has successfully improved access to finance during the last three years (Table 8).**[53] Penetration rates compare favorably with regional peers.[54] For instance, number of branches of microfinance institutions and mutual credit associations has substantially increased since 2007. In addition, the number of deposit accounts and the share of micro and small clients have also increased.

58. **In order to further promote access to finance in rural areas, improvements in the management of credit risk and physical infrastructure are necessary.** Credit risk management could be improved by allowing loans to be only partially guaranteed and by

[53] Main government initiatives in this area include: (i) the definition of norms for the consolidation of hitherto unregulated cooperatives and development financial institutions; (ii) the issuance of circulars and regulations to stimulate the opening of branches in rural areas, facilitate productive credit, and enhance consumer protection; (iii) the provision of dedicated funding sources for productive credit through its second tier bank BDP; and (iv) the distribution of conditional cash transfers through financial entities.

[54] An average of two branches per 10,000 adults compared to 1.3 in December 2007.

allowing movable assets as collateral. In addition, efforts to expand the reach of the financial system should be coordinated with the government's plans to improve road infrastructure and/or the supply of electricity, including public infrastructure investment to complete internet coverage. In addition, it would be necessary to enhance regulatory requirements for the operation of smaller service points, nonbank agents, and mobile banking. Finally, financial literacy and promotion campaigns should be conducted to broaden and deepen the public's understanding of financial services.

Table 8. Bolivia: Financial Penetration Indicators

Country/ Region	Number of Branches per 10,000 Adults	Country/ Region	Number of Deposit Accounts per Adult
Latin America	2.5	Pakistan	0.2
Middle East and Northern Africa	2.3	Paraguay	0.3
East Asia and Pacific	2.1	Nicaragua	0.5
Bolivia	**2**	**Bolivia**	**0.8**
Sub-Saharan Africa	1.2	Latin America	1.9

Source: World Bank.

59. **A clearer definition of the mandate of public financial institutions in the banking law would limit distortions of competition in the market.** State development banks should focus on providing retail financial services to under-served segments of the market and be restrained from offering the same type of financial services as private financial institutions. Giving public financial institutions a transparent mandate would level the playing field with private sector intermediaries. A monitoring and evaluation system should be set up for public institutions to assess compliance with their policy mandate.

B. Creditor Protection and Corporate Governance

60. **Strengthening creditors' rights in the new commercial code would promote access to financial services.** The current bankruptcy procedures are very cumbersome and, typically, bankruptcy cases are not settled by a final judgment and this is inhibiting the further development of financial services. Although creditors' rights are covered in the commercial code, they can easily be blocked and, therefore, are in practice never pursued. The current review of the commercial code should therefore enhance creditors' rights through improving the use of out-of-court proceedings.

61. **Corporate governance rules are still in need of development.** As in the case of the insurance sector, the absence of corporate governance rules hinders market access and, therefore, the development of capital markets.

Table 9. Bolivia: Financial Sector Structure

	Number of Institutions	Total Assets (US$)	Share of System	Percent of GDP
Deposit-taking institutions			**-**	**-**
Commercial banks	12	9,263,024,762	49.5	51.5
Open cooperatives	24	570,551,875	3.0	3.2
Mutual credit associations	8	912,317,852	4.9	5.1
FFPs	6	581,090,396	3.1	3.2
Entities in process of regularization	77	659,949,976	3.5	3.7
Closed cooperatives	63	406,494,634	2.2	2.3
Development finance institutions	14	253,455,342	1.4	1.4
Institutional investors			**-**	**-**
Brokerage companies	9	133,196,799	0.7	0.7
Mutual funds administrators (SAFI)	8	15,228,996	0.1	0.1
Pension funds	2 1/	5,240,696,834	28.0	29.1
Insurance companies	14	690,472,669	3.7	3.8
Total		**18,726,480,135**	**100.0**	**104.0**

Source: Bolivian authorities and Fund staff estimates.

1/ Prior to the December Pension Reform.

Table 10. Bolivia: Financial Soundness Indicators

	2005	2006	2007	2008	2009	2010
Capital adequacy						
Bank regulatory capital to risk-weighted assets*	14.6	13.3	12.6	13.7	13.3	11.9
Regulatory tier 1 capital to risk-weighted assets	NA	12.5	11.8	12.98	12.8	11.7
Capital to total assets	11.3	10.0	9.0	9.3	8.7	8.4
Asset Quality						
Bank nonperforming loans to total loans*	11.3	8.7	5.6	4.3	3.5	2.2
Bank provisions to nonperforming loans	85.9	106.5	132.4	153.7	165.7	189.4
High risk loans to total loans	23.9	18.5	12.6	9.3	7.3	4.8
Provisions to high risk loans	40.7	45.7	54.5	67.3	75.7	98.9
Nonperforming loans net of provisions to capital	12.5	5.0	-4.2	-7.7	-7.7	-9.6
High risk loans net of provisions to capital	77.7	58.1	32.4	15.4	8.7	0.3
Earning and profitability						
Bank return on assets	0.6	0.9	1.9	1.7	1.7	1.3
Bank return on equity	6.4	8.6	21.2	20.3	20.6	17.3
Interest income to gross Income	64.1	70.2	95.4	91.9	59.5	56.4
Non-interest expenses to gross income	11.7	3.2	-27.6	-42.3	11.0	4.7
Liquidity						
Liquid Assets (Disponibilidades) to total deposits	14.0	16.7	15.1	14.7	24.6	21.5
Foreign currency loans to total loans	92.9	84.8	81.5	68.9	62.7	55.1

Source: Bolivian authorities and Fund staff estimates.

Table 11. Bolivia: Risk Assessment Matrix

<table>
<tr><th colspan="3">Overall Level of Concern</th></tr>
<tr><th>Nature/Source of Main Threats</th><th>Likelihood of Severe Realization of Threat Sometime
(In the next three years)</th><th>Expected Impact on Financial Stability if Threat is Realized</th></tr>
<tr><td>1. An increase in inflation may trigger a sharp increase in nominal interest rates.</td><td>Assessment: high
Monthly inflation has been high in recent months and actions by the central bank through stepped-up open market operations have not yet been sufficient to reduce excess liquidity or alter interest rates, which need to increase.</td><td>Assessment: high
Loan books are almost entirely indexed to the TRE; a sharp increase in reference rates would imply a significant increase in debt service payments and a consequent deterioration of the loan-book quality.
The impact on banking system stability would be significant, with a number of banks facing the need for additional capital at the same time.
As banks' asset quality deteriorates and the capital base shrinks, so will credit supply, possibly setting in motion a downward spiral cycle.
Table 7; Paragraph 20.</td></tr>
<tr><td>2. An increase in political tensions could weaken confidence in the domestic banking sector.</td><td>Assessment: high
The domestic political environment has been volatile and social unrest has been persistent. Rumors about the direction of economic policies have gained traction, even if unfounded. Private capital outflows, excluding FDI, have been rising in the last two years.</td><td>Assessment: high
Significant exposure to deposits concentrated in large, short-term accounts makes the banking sector highly vulnerable to rapid deposit outflows. However, the new public pension fund administrator may have a stabilizing effect.
Banks' liquidity positions have been falling as a result of credit growth; in addition, mandatory reserve requirements in domestic currency have been reduced.
A liquidity crunch in the banking sector would force deleveraging as well as a deterioration of the loan portfolio.
Current ELA arrangements are appropriate to release liquidity in the system, and current levels of bank</td></tr>
</table>

Overall Level of Concern		
Nature/Source of Main Threats	Likelihood of Severe Realization of Threat Sometime (In the next three years)	Expected Impact on Financial Stability if Threat is Realized
		liquidity are sufficient to withstand 12 days of outflows of a daily magnitude comparable to that observed at the end of 2010. However, three days of such outflows would represent a loss of 10 percent of the system deposits and a significant liquidity crunch for the system. Table 7; Paragraph 16.
3. Excessively rapid credit growth, generated by expansionary monetary policies, leading to increased leverage and inflationary pressures.	*Assessment: high* • Current monetary policies remain expansionary; • Inflation has picked up to 10 percent at the end of February 2011, while deposit interest rates in local currency and FX remain close to zero and lending rates are now sharply negative in real terms.	*Assessment: high* • Excessively rapid growth of the loan book coupled with overvalued collaterals will likely generate significant impairments and heavy losses to the banks going forward. • The authorities have recently relaxed provisioning requirements for local currency loans, thus exposing banks to higher future potential losses from impairments. • Stress test results indicate that the banking sector has sufficient capital buffers to sustain a deterioration of credit quality, but losses may be exacerbated by high concentration in the loan books. Table 7; paragraphs 15 and 20.
4. Price adjustment in the real estate sector	*Assessment: medium* • The environment of negative interest rates, if maintained, generates a high likelihood of asset price bubbles to materialize. Real estate prices have been rising rapidly.	*Assessment: high* • Exposures to real estate sector are significant in some cases. However, the provisioning requirements are lower than other credits, and loss recognition takes longer thus potentially leaving NPLs lingering on balance sheets. • *Stress* test results indicate that the impact of the bursting of an asset

Overall Level of Concern		
Nature/Source of Main Threats	Likelihood of Severe Realization of Threat Sometime (In the next three years)	Expected Impact on Financial Stability if Threat is Realized
		price bubble in the real estate sector would be significant with many banks in distress at the same time. Table 6 Paragraph 19.
5. An exchange rate adjustment triggered by the reversal of the external position, due to an inconsistent policy mix**.** A fiscal deficit coupled with expansionary monetary policies, may lead to continued high inflation and gradual appreciation of the real exchange rate, reverse the external position, and eventually require an exchange rate adjustment.	*Assessment: low* • Current levels of international reserves are high and foreign receipts remain high. The authorities have run fiscal surpluses in each of the last five years. In the run up to devaluation, capital outflows may put pressures on reserves.	*Assessment: high* • The deterioration of the FX loan-book exposures would follow the impairments on LC loans stemming from the domestic inflationary environment. • The impact on banking system stability would be significant, given the high exposure to FX loans and the double shock, with many banks in trouble at the same time and scarce capital resources in the system. Table 7; Paragraph 20.
6. A commodity price shock would impact the terms of trade, reduce exports and growth, if persistent, lea*d* to a depreciation of the exchange rate.	*Assessment: medium* • Commodity price shock could follow a double-dip global recession. • Current levels of international reserves are high and foreign receipts remain high.	*Assessment: medium* • Banks' direct exposure to the sectors mostly affected by commodity prices is limited, as financing for these sectors is obtained abroad. • However, permanently lowering commodity prices would reverse the external and fiscal position and require macroeconomic adjustment. Table 7; Paragraph 20.

Table 12. Bolivia: Status of 2004 FSAP Recommendations

Recommendation	Timeframe 1/	Status 2/	Supporting Measures
• Design a comprehensive strategy to deal with the interlinked banking and corporate sector problem. • Appoint a high-level system restructuring team.	ST	1	➢ Law 2495, August 4, 2003,, and Supreme Decree Nº 27187 February 20, 2004, established out-of court mechanism for voluntary restructuring of debts between borrowers and creditors. ➢ Supreme Decree Nº 26838 of November 09, 2002, and Decreto Supremo Nº 27385 of February 20, 2004 creates the Fondo de Fortalecimiento de Empresas to support corporate debt restructuring. ➢ Law Nº 2427 of November 28, 2002, established the Superintendencia de Empresas. ➢ Decreto Supremo Nº 27386 of February 20, 2004, established the Fondo de Apoyo al Sistema Financiero to support capital resources in the banking sector.
• Appoint a high-level system restructuring team.	ST	3	
• Reform the corporate bankruptcy framework.	ST	3	
• Clarify the powers to regulate the financial sector.	ST	1	➢ Law N° 3076 of 20 June 2005 ➢ Constitución Política del Estado; January 25, 2009
• Gradually introduce prudential regulation to help banks internalize credit risk embedded in dollar loans to debtors in the nontradable sector.	ST	1	➢ 2005 and 2009 New regulations for liquidity risk Management ➢ 2005 and 2009 New regulations for foreign exchange risk management.

Recommendation	Timeframe 1/	Status 2/	Supporting Measures
• Buttress and maintain adequate liquidity buffer of international reserves.	ST	1	
• Correct the legal shortcoming for payments systems.	ST	2	
• Criminalize the financing of terrorism.	MT	3	
• Strengthen the capacity of the Pension, Securities and Insurance Supervisory Agency to conduct on-site inspections.	MT	1	• Constitución Política del Estado (CPE) of January 25, 2009. • Decreto Supremo N° 29894 of February 7, 2009 • Decreto Supremo N° 071 of April 9, 2009.
• Advance the timetable for valuation (by external experts) of the shares of capitalized companies.	MT	3	
• Introduce reforms to enhance debtor information systems and the use of moveable collateral to mobilize credit.	LT	2	• Regulations on the valuation and classification of loans (en RNBEF) Red Supernent (CIRC)
• Remove impediments that thwart, in practice, the authorization for pension funds to invest a fraction of their funds in safe assets abroad.	ST	1	• Law Nº 065 Pensions December 10, 2010, provides that the new Public Pension Fund Administrator may invest assets abroad up to 50 percent of each fund.

1/ ST = Short term, MT = Medium term, LT = Long Term. /2 1 = Implemented; 2 = Partially Implemented; 3 = Not Implemented.

Appendix I. Basel Core Principles—Summary of Compliance

62. **Bolivia has been making efforts to align its regulatory and supervisory framework with international standards.** In 2004, the institutional framework for the supervision of banks suffered from several weaknesses: (i) lack of clarity in the objectives and attributions of the agencies involved; (ii) potential for government interference; (iii) limited independence of the supervisory agencies; and (iv) questionable effectiveness of the coordination mechanism in place. Bolivian authorities have taken action to address several of these problems. In particular, the former bodies that were granted overlapping and superseding attributions in the area of financial regulation and oversight no longer exist.[55] As a result, better clarity has been brought in the supervisory arrangement and the Financial System Supervisory Authority (ASFI) is now the sole authority to supervise banks and other financial institutions.

63. **On the regulatory front, a number of important prudential regulations have been issued to strengthen the overall policy framework under which financial institutions operate in Bolivia.** New requirements for liquidity, credit, and exchange risks were passed. Presidential decrees that gave banks more time to bring their provisions to the adequate level were revoked. These changes have reinforced risk management standards in the banking industry as well as the methodologies for valuation of loans and financial investments.

64. **Progress is also noticeable in the risk supervision practices applied by ASFI.** A new inspection manual has been implemented that provides detailed guidance to bank examiners during their on-site inspections. A rich offsite system allows ASFI staff to collect a significant quantity of data that are being used for on-going surveillance. The supervisory authority has also reorganized its internal structure to implement a more risk-oriented supervision.

65. **Progress is also noticeable in the risk supervision practices applied by ASFI.** A new inspection manual has been implemented that provides detailed guidance to bank examiners during their on-site inspections. A rich offsite system allows ASFI staff to collect a significant quantity of data that are being used for ongoing surveillance. The supervisory authority has also reorganized its internal structure to implement a more risk-oriented supervision.

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[55] This is the case for the Ministry of Financial Services and the General Superintendence of the System of Financial Regulation (SIREFI).

A. Main Findings

66. **There have been significant changes since the 2004 BCP assessment**. At that time, the situation observed regarding the institutional arrangement for supervision was not satisfactory. In effect, prudential regulation was relaxed through six presidential decrees issued after 2000 and the creation in late 2002 of new institutions with regulatory, supervisory, and coordinating functions overlapped and superseded those of ASFI. In addition, two agencies were created with a role in bank supervision. The General Superintendency of the System of Financial Regulation (SIREFI), limiting the operational and budgetary independence of ASFI. Also created was the National Council for Financial Policies (CONFIP) with responsibility for coordinating banking, financial, pensions, securities, and insurance policies and had the ability to propose prudential regulation to be approved by presidential decrees. The effect of all these actions was to weaken bank supervision and adversely impact the ratings of the last BCP assessment. Recent legislative changes revoked all the presidential decrees and eliminated SIREFI and CONFIP and then combined with work done by ASFI on the supervisory framework; these actions have resulted in areas of improvement in this assessment.

67. **The supervisory framework has been significantly enhanced in the areas of liquidity, exchange, and credit risk.** Work is underway to issue regulations and supervisory guidance to address deficiencies in the areas of market, interest rate, operational, and country risk.

68. **Notwithstanding these positive developments, there are serious enforcement issues.** ASFI's effectiveness as a supervisory agency (which also includes the Financial Investigation Unit-UIF) is affected by a lack of legal protection of supervisors. Litigation can occur in practice since the enactment of the anti-corruption law (called *Marcelo Quiroga Santa Cruz*) that lifted protection for ASFI and other public entities' personnel against undue civil, administrative or criminal actions.

69. **Some concerns arise over the institutional framework to ensure an independent ASFI.** The last superintendent (executive director) to be appointed in full accordance with the law was in 2001 and served a full term until 2006. Since then three executive directors have been appointed on an interim basis by the president. The law does not specify the reasons for which the executive director may be removed. The lack of an official appointment and legal protection from arbitrary and capricious removal may make it difficult for the executive director to exert the independence stipulated in the law.

70. **ASFI's ability to address imprudent behavior by banks is also compromised by some gaps in supervision.** Operational risks have only been recently integrated on ASFI's radar screen and interest risks are not captured yet. Likewise, integrity risks do not form part of ASFI's mandate, which is a serious problem considering the high level of ML risk exposure in the country.

71. **Significant work is required to improve the AML/CFT supervisory framework.** Currently, the function is shared by the FIU and ASFI, but the regulations do not set clearly the agencies' responsibility and, in some instances, there appears to be overlap. Supervision of compliance lies on the FIU and not on the Risk Supervision Directorate of ASFI and is ineffective. In practice, very few banks have been overseen by the UIF and key nonbank sectors are left totally unmonitored (*casas de cambio*, remittances, micro-finance institutions, and private financial funds, among others). In addition, the FIU does not share information with supervision departments that could be relevant to their prudential supervision. There is no enforcement in the area of ML compliance.

72. **In pushing forward the transition toward risk-based supervision, ASFI may face human-resource constraints.** ASFI's supervisory capacity is already stretched due to the loss of several qualified personnel, which is aggravated by the addition of new tasks to ASFI's responsibilities, in particular with regard to securities/pensions and microfinance. A further upgrading of supervisory capacity, both in quantitative and in qualitative terms, is therefore necessary.

73. **The rest of this appendix summarizes the comments provided to the authorities.**

Appendix Table I.1. Basel Core Principles—Summary of Comments

Reference Principle	Comments
CP 1 Objectives, Autonomy, Powers, and Resources	The law establishes the power of ASFI as the sole supervisor of the banking system. The statutes, however, do not specify reasons for which the director may be removed. The legislation should be amended to address the areas of noncompliance to fix a term for the director, provide legal protection to supervisory staff, and establish a transparent process for issuing regulations that include public and industry comment. A new banking law is being drafted and provisions to restore legal protections for ASFI staff are being considered. There is some confusion about the respective mandates assigned to ASFI and the FIU with respect to regulation and supervision of AML compliance in banks (see BCP 18 for further details).
CP 2 Permissible Activities	Each of the essential criteria is met.
CP 3 Licensing Criteria	The minimum requirements for establishing a financial institution in Bolivia are clearly stated in the Banking Act as described above. Some issues have been detected: (i) it is not clear in the Banking Act whether fit-and-proper tests also apply to proposed directors and senior management (domestic and foreign applicants); (ii) the law does not require ASFI to obtain information on the sources of initial capital; (iii) requirements on internal controls do not include specifically those related to the detection and prevention of criminal activities; and (iv) ASFI does not assess whether the home supervisor practices global consolidated supervision.
CP 4 Transfer of Significant Ownership	No comments

Reference Principle	Comments
CP 5 Major Acquisitions	Authorization of ASFI is not required for investments. ASFI does not evaluate whether these acquisitions expose the bank to excessive risks, including those associated with reputation.
CP 6 Capital Adequacy	Bolivia follows the Basel I standard, but has not implemented a market risk component. Market risk is limited, as most assets are held to maturity, and trading accounts are mainly repos. Relevant market risks are interest and foreign exchange risk. A position limit for open foreign exchange positions has been established. Article 47 of the LBEF provides the authority to implement a capital charge for those risks. Work is underway to impose a capital charge for interest rate and foreign exchange risk.
CP 7 Risk Management Process	The primary balance sheet risk in Bolivia is credit risk, but interest rate and foreign exchange risk are also present. Operational risk is another source of risk. The guidance provided by ASFI is comprehensive for banks to establish risk management systems, but lacks interest rate risk guidance, and the operational risk guidance needs to be broadened. Work is already underway on an operational risk and an interest rate risk regulation to address these deficiencies.
CP 8 Credit Risk	Extensive credit risk management guidance has been issued by ASFI and onsite inspections monitor for compliance.
CP9 Problem Assets, Provisions and Reserves	A conservative framework for loan classification and provisioning has been established that includes provisions for the performing portfolio and cyclical provisions in times of economic growth. The framework meets the standards, but two elements may undermine its effectiveness. A reduction in provisioning is granted for loans to the productive sector to encourage bank lending, but it is limited to the highest quality of loan classifications. Provisioning requirements were reduced to encourage lending to the productive sector for loans in categories A&B. Provisioning is based on credit risk and should not be used to encourage economic programs.
CP10 Large exposure limits	Existing regulations and supervisory monitoring ensure the identification of large exposures and establish limits on exposure. Monitoring information is provided in bank reports to ASFI; however, limits are applied on a solo basis and not on all consolidated affiliates.
CP 11 Exposures to Related Parties	Regulations do not permit banks to lend to related parties. The definition of related parties also includes important management and control positions.
CP 12 Country and Transfer Risks	Banks do not have international operations and their international exposure is limited to high-quality sovereign bonds and bank deposits, and correspondent banking. Although ASFI has not issued provisioning guidelines for country/transfer risk, it has issued requirements for banks to monitor exposure and report to ASFI. ASFI also monitors declines in ratings and requires banks to provision as they do commercial loans. The risk is mitigated by the lack of cross-border operations and lending by Bolivian banks.
CP 13 Market Risks	Interest rate risk and foreign exchange risk are the two main market risks in Bolivia. Interest rate risk management guidelines for banks have not been issued and examiners do not monitor this risk. Work is planned to develop a market risk guideline.
CP 14 Liquidity Risk	A comprehensive framework for banks to manage and monitor, and for ASFI to evaluate the risk, has been established.
CP 15 Operational Risk	Significant guidance has been issued by ASFI on internal control risk, technology risks and back-up plans and duties, as well as on responsibilities of the Board. External sources of operational risk need expanded treatment. Inspectors review the risk in their visits. ASFI is developing an operational risk regulation to provide consolidated guidance and institute a capital charge.

Reference Principle	Comments
CP 16 Interest Rate Risk in the Banking Book	There is no guidance issued on interest rate risk, and examiners do not review this risk. As part of the broad regulatory project underway to revise the LBEF, guidelines on interest rate risk are being developed
CP 17 Internal Control and Audit	Internal control and audit is an area where ASFI has issued extensive guidance to banks and is recognized as a key area to ensure bank safety. ASFI has a thorough monitoring program to ensure that banks take the necessary actions to establish and maintain an effective and comprehensive internal control and audit function.
CP 18 Abuse of Financial Services	Terrorist financing is not criminalized. The current AML regime does not provide full autonomy to the FIU in terms of administrative, operational, and enforcement capacity. The FIU is understaffed. Compliance supervision in bank is insufficient and inexistent is key sectors where ML risks are high (bureaus de change, remittances). There is no enforcement for AML. Regulations are piecemeal and create confusion about delineation of responsibilities between ASFI and the FIU.
CP 19 Supervisory Approach	Supervisory focus is not risk-based oriented. There is no rating system that would (i) permit distinguishing between sound and adversely-rated institutions; and (ii) help adjust prudential oversight accordingly. As of today, information on banks is collected only on a solo basis. Even though policies and procedures refer to consolidated supervision, the latter has not been implemented yet. Finally, ASFI does not evaluate risk accumulation at the system level.
CP 20 Supervisory Techniques	Operational, interest rate as well as reputational risks are not fully incorporated into the prudential oversight. There are no mechanisms that would allow ASFI to collect data on ML risks with the view to strengthen its risk management oversight globally and on a solo basis. Coordination and information exchange processes have not been formalized yet between Banks, Pensions and Securities Risks Supervision Departments.
CP 21 Supervisory Reporting	ASFI receives a fairly comprehensive set of information on banks and other nonbank financial institutions. However, there is no collection of data on interest rate risks
CP 22 Accounting and Disclosure	It is not clear which agency is entrusted with the authority to establish accounting and auditing principles for financial institutions. The BCP assessors could not find a provision requiring periodic public disclosure on banks' financial performance, financial position, risk management strategies and practices, risk exposures, transactions with related parties, accounting policies, and basic business management and governance. External auditors do not pay enough attention to operational and corporate governance risks during their work. The ML risks evaluation should also be reinforced. Auditing practices are uneven.
CP 23 Corrective and Remedial Powers of Supervisors	The current team in charge of dealing with problem banks has not been exposed to real cases. There is a tendency for forbearance on capital requirements during resolutions mechanisms. ASFI has no power to ring-fence a bank from the actions of the parent companies, subsidiaries, and other related companies that could impair the safety and soundness of the bank.
CP 24 Consolidated Supervision	Not applicable.
CP 25 Home-Host Relationships	Effective cross-border supervision is not really crucial for Bolivia, as it acts as host supervisor for only three banks of foreign parent banks (Argentina, Brazil, and Peru) with a very small market share. On the other hand, since there is no Bolivian bank abroad, ASFI does not play any role as home supervisor. The Superintendency of Peru did inspect a Peruvian bank located in La Paz. ASFI did not participate in the on-site visit, but received a copy of the inspection report from Peru.

B. Authorities' Response

74. **Overall, the Bolivian authorities were in agreement with the conclusions of the BCP assessment**. However, authorities challenged the rating of four principles, including on effective system of banking supervision, licensing criteria, authorities' power to review major acquisitions, and supervisory reporting. For some of these principles, the rating was improved based on additional information and clarifications received by assessors; but not for all, as assessors were also of the view that the lack of legal protection for ASFI staff and the absence of minimum term for the ASFI executive director could not justify changes in some cases. Also, authorities did not share the assessor's views regarding the need to promote a better comprehension of the risks at the macro level and to increase human resources for ASFI. Lastly, regarding the issue integrity, the absence of compliance with AML/CFT international standards was acknowledged by the authorities, despite improvements made in the national regulatory framework.

Appendix II. CPSS Core Principles—Summary of Compliance

75. **Bolivia has made significant progress in modernizing its NPS over the last several years.** A major improvement was the RTGS launched in 2004. This system has contributed to a better integration between BCB, the banks, and other financial institutions, and it is processing a growing share of large-value payments. Known as SIPAV, it is the backbone of the payment system and provides settlement services for the Cheques Clearing House (CCC), the ACH for credit transfers and direct debits, the treasury accounts (SPT), and securities (EDV). Due to the volumes it settles, and its unique position as sole entity to provide settlement in central bank accounts, SIPAV is considered a systemically important payment system.

76. **The BCB is working on a new payments system, denominated LIP (Sistema de Liquidacion Integral de Pagos), which would improve the interconnection between the various subsystems of the NPS.** This new system would be partly RTGS, partly netting with queues, and would allow all components of the NPS to operate on the same technical platform, thus improving liquidity management for non-RTGS systems, and further improving their safety.

A. Main Findings

77. **Developments in the retail space need to be monitored by the BCB, with the objective of reducing the usage of cash and increasing efficiency**. The BCB should also support and encourage the development of those initiatives from the private sector aimed at increasing the usage of electronic payment instruments. In Bolivia, the use of cheques has not substantially decreased and cash is still by far the most used payment instrument. Payments through credit and debit cards are stagnant or are increasing at a slow pace.

78. **The BCB should be encouraged to act as a catalyst for payment card networks to cooperate upstream and compete downstream, which would facilitate the further deployment of the ATM and POS infrastructure.** As payments are a network industry, resources can be saved by joint efforts by the industry to cooperate in the development of the infrastructure.[56]

79. **The BCB and the treasury should also consider the possibility of channeling more government payments through the payments system, including the ACH.** This could both create more volume in the ACH and therefore decrease costs of those payments as

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[56] Examples of countries (like Brazil), where the absence of cooperation has led to a loss of resources and related solutions can be found in the recent study by the World Bank on "Balancing cooperation and competition".

well as for other payments channeled through the ACH) and improve financial access in the country, as more transactions could be channeled through the financial system.[57]

80. **The rest of this appendix summarizes the comments provided to the authorities**.

Appendix Table II.1. CPSS Core Principles—Summary of Comments

Reference Principle	Comments
CP 1 Legal foundation	The legal framework of the country needs to be reviewed in some aspects related to the payment systems, as it presents some gaps, in particular in the area of retail payments. It also lacks a proper legal foundation for the oversight powers of the central bank. The BCB is encouraged to finalize the payment systems law as soon as possible; and in general, should aim at a comprehensive and consistent legal framework on payment services, avoiding a piecemeal approach and successive revisions of the legislation. In this direction, the new regulation should also include innovative payment services. The disbursement of international remittances in the country is operated mainly through banks but also nonsupervised entities such as money transfer operators. These entities are inappropriately supervised or not supervised by public authorities in their activities, and this might pose a shortage in compliance with AML/CFT requirements for industry and leave consumers without any protection in case of their defaults, problems, or misconducts. In addition to this, in case of frauds or mismanagements, the whole industry faces a reputational risk that could lead customers to abandoning the legal/formal sector in favor of alternative mechanism of remitting. The BCB should therefore be encouraged to accelerate the adoption of the Remittances Law.
CP 2-3 Understanding and management of risks	The SIPAV regulation is complemented by a manual ("Guia operativa y informatica del sistema de pagos de alto valor "). The participants in the system receive all the relevant information, including the operational manual and rules, and the contractual agreements with the BCB include a clear list of all the applicable laws and norms. The manual and rules explicitly clarify the functioning procedures. Credit risk among participants is eliminated by the RTGS nature of the system. Also, as the system only allows for fully collateralized intra-day and overnight credit, credit risk for the central bank is mitigated. Liquidity risk is managed through the provision of fully collateralized intra-day credit. Participants can obtain reports on their accounts and monitor in real time the flows of payments.
CP 4-6 Settlement	There are no flaws regarding settlement, as the system settles in real time, on a gross basis, and in central bank money
CP 7 Security and operational reliability, and contingency arrangements	Rules and procedures on security, operational reliability, and business continuity of the system are in place and a contingency site guarantees business continuity to the system.

[57] In this respect, the World Bank is developing guidelines for Government payments, which could be used to support the BCB's efforts in decreasing the use of cash and decreasing the cost of government payments.

Reference Principle	Comments
CP 8 Efficiency and practicality of the system	The SIPAV covers participants' needs in their daily operations within the payment system, as the system is practical, and operations are easily processed and quickly settled. Because it is a real-time gross settlement (RTGS) system, SIPAV eliminates moral and credit risks. This, together with the liquidity mechanisms created by the CBB (intraday lending facility) results in smoother payment operations. Less risk also reduces costs for participants as compared with the previous system. The use of the system is based on differentiated transaction fees depending on time windows during the day. The pricing is based on the principle of the recovery of operational costs, and certain categories of participants (CCC, ACH, and EDV) do not pay fees. As the system is not being used to its full capacity, there is also the possibility to further decrease its costs for the users. Hence, the BCB should assess whether the current pricing policy is consistent with its own objectives on SIPAV.
CP9 Criteria for participation	Participation in SIPAV is restricted to those entities which are supervised by ASFI or which are authorized by the BCB's Board of Directors. This gives full discretion to the BCB's Board to decide without having to rely on established criteria. A transparent, risk based, and nondiscretionary access and participation policy should be enacted by the BCB.
CP10 Governance of the payment system	There is currently no consultation mechanism which ensures that all affected parties are consulted and have access to information about decisions affecting the system. A SIPAV users' group should be established either as a stand-alone group or as part of the National Payment Council (see below).
Central Bank Responsibilities in applying the CPs	The oversight function of the BCB on the NPS should be quickly implemented. The BCB should issue a clear policy document, highlighting the main objectives and instruments of its oversight function. The central bank should also dedicate additional resources (human and financial) to form a unit of people in charge of payments system oversight. The unit should remain as separated as possible from the units in charge of operating the systems. The human resources in the unit should include legal, operational, and technical expertise as well as policy and economics. Cooperative arrangements in the NPS need to be formalized. The BCB should reinforce its dialogue with all the players in the area of payment systems through the creation of the Payments Council (*Comite' de Pagos*), gathering relevant authorities and private sector stakeholders. Cooperation with all relevant authorities (e.g., ASFI) in carrying out effectively the oversight and supervisory function should also be strengthened.

B. Authorities' Response

81. **The authorities are in broad agreement with the recommendations made.** The authorities' response either confirms that recommendations are being followed (because of projects already in the pipeline) or that they will be implemented.