July 2011
IMF Country Report No. 11/163

**Papua New Guinea: Financial System Stability Assessment**

This paper on Papua New Guinea was prepared on the information available at the time it was completed on April 29, 2011. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Papua New Guinea or the Executive Board of the IMF.

The policy of publication of staff reports and other documents by the IMF allows for the deletion of market-sensitive information.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
700 19th Street, N.W. • Washington, D.C. 20431
Telephone: (202) 623-7430 • Telefax: (202) 623-7201
E-mail: publications@imf.org Internet: http://www.imf.org

**International Monetary Fund**
**Washington, D.C.**

INTERNATIONAL MONETARY FUND

PAPUA NEW GUINEA

**Financial System Stability Assessment**

Prepared by the Monetary and Capital Markets and Asia and Pacific Departments

Approved by José Viñals and Anoop Singh

April 29, 2011

This Financial System Stability Assessment (FSSA) is based on the work of a joint IMF-World Bank Financial Sector Assessment Program (FSAP) mission to Port Moresby during May 12–26, 2010. This work was updated during an MCM mission in the context of the Article IV/UFR Consultations during February 16–21, 2011. The main findings are:

- Papua New Guinea (PNG)'s financial system was little affected by the crisis, and although it is well-capitalized and profitable, close monitoring is still warranted.
- Banking regulation and supervision should be further developed and move towards a more risk-based approach, while weaknesses in the payment and settlement systems need to be addressed.
- The crisis management framework needs to be enhanced, in view of the high concentration of the banking system and lack of secondary markets for government securities.
- The institutional framework of the Sovereign Wealth Funds should ensure that their operations are efficient and consistent with PNG's macrofinancial stability.

The main author of this is Michael Papaioannou, with contributions from other members of the team.

The FSAP team comprised Michael Papaioannou (IMF mission chief), Ivan Guerra, Erdembileg Ochirkhuu (all IMF); and Craig Thorburn (mission chief, World Bank), Andrea Coppola, Valeria Garcia, Harish Natarajan (all World Bank); Thordur Jonasson, and Richard Pratt (IMF external consultants), and Ruth Goodwin-Groen, and Suzette Vogelsang (World Bank external consultants).

*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.*

Contents Page

## GLOSSARY OF TERMS

| | |
|---|---|
| ADB | Asian Development Bank |
| AML | Anti-Money Laundering |
| APRA | Australian Prudential Regulation Authority |
| ASF | Authorized Superannuation Fund |
| ATP | Automated Trading Program |
| BCP | Basle Core Principles for Effective Banking Supervision |
| BFIA | Banking and Financial Institutions Act |
| BPNG | *Bank of Papua New Guinea*—Central Bank of Papua New Guinea |
| BSP | Bank of South Pacific |
| CAR | Capital Asset Ratio |
| CBA | Central Banking Act |
| CBB | Central Bank Bills |
| DFRBF | Defense Force Retirement Benefits Fund |
| ESA | Exchange Settlement Account |
| FATF | Financial Action Task Force |
| FIU | Financial Intelligence Unit |
| FSAP | Financial Sector Assessment Program |
| FSSA | Financial System Stability Assessment |
| GDP | Gross Domestic Product |
| KFR | Kina Facility Rate |
| LNG | Liquefied Natural Gas |
| MOU | Memorandum of Understanding |
| MRSF | Mineral Resource Stabilization Fund |
| NGO | Non-governmental Organization |
| NPL | Nonperforming Loan |
| NPS | National Payment System Development Plan |
| PNG | Papua New Guinea |
| POCA | Proceeds of Crime Act |
| POS | Point of Sale |
| SWF | Sovereign Wealth Fund |
| TA | Technical Assistance |

Currency: Kina (K) = US$ 0.33

## EXECUTIVE SUMMARY

1. **The global financial crisis had only a mild impact on PNG.** The financial sector was largely insulated from global financial markets due to its limited exposure to global wholesale funding markets and little use of sophisticated financial instruments. Increased public spending helped sustain growth in the face of the indirect impact of some commodity price declines.

2. **Indicators point to a generally well capitalized and highly profitable sector overall.** System capital ratios are high, largely driven by the need to provide capacity to larger clients and facilitate expected expansion in lending, as well as high holdings of government securities. Also, underlying liquidity, particularly in the absence of a secondary market for government securities, and concern regarding asset quality, as the portfolio continues to grow, may justify high ratios. Stress tests indicate that the banking system faces little impact from interest rate and credit shocks in the near term, although loan concentration in the commercial and financial sector could potentially pose a risk to the system.

3. **Although the financial sector in PNG has been a source of strength since the reforms in 2000, vulnerabilities exist and need to be carefully managed.** A small open economy, a concentrated financial sector focused on the formal (especially commercial) sector, significant growth expectations, and limited secondary markets are factors that combine to create risks that can be significant in times of stress. Moreover, although capital and liquidity buffers appear high, these may overstate the resilience of the system given these underlying structural vulnerabilities and the effects of recent rapid credit growth.

4. **Against this background, there are important steps still needed to strengthen the regulation and supervision of the banking and insurance sectors.** Reforms in 2000 have improved the system, and examination staff is developing a reputation for being competent and knowledgeable. Nonetheless, there remains a need to introduce a full set of prudential standards, starting with risk management, market and liquidity risk, to further standardize financial statement reporting, and expand and use more effectively the range of supervisory tools. A more risk-focused approach is also needed, and the BPNG should conduct its own assessment of risks to financial stability and use this to form the basis of the supervision strategy. All supervisory functions at the Bank of Papua New Guinea (BPNG) need more stable funding, more staff and more flexible pay systems, and, for both the BPNG and the Insurance Commission, the use of funds should be transparent to ensure accountability. There is a need for greater coordination between the BPNG and the Insurance Commissioner's Office.

5. **PNG's crisis management framework is incomplete and needs strengthening.** Most notably, the high concentration in the banking system, the lack of secondary markets for government securities, and the absence of an effective mechanism for providing central bank liquidity could pose significant challenges in the event of a systemic event.

6. **Further development of the local government securities markets is important for system stability.** Along with the establishment by the BPNG of a standing facility for banks to access liquidity against collateral, the introduction of an active secondary and interbank market for government securities would help mitigate potential liquidity risks and ensure market integrity and efficiency, including by facilitating bond price discovery.

7. **Payment and settlements systems are to be reformed in response to identified weaknesses.** The current legal framework does not recognize payment services as an independent activity, and does not address key payment system issues. The oversight powers of BPNG are not categorically stated and the oversight and regulatory powers of the Securities Commission are inadequate. Establishing a dedicated Payment Systems Department in the BPNG is crucial to support ongoing regulation and oversight.

8. **Improving access to financial services remains a very significant developmental challenge.** The government is committed to increasing financial inclusion, but government coordination and stakeholder consultative mechanisms do not exist. Around 85 percent of the adult population is excluded from the formal sector, largely those in rural communities. The main barriers to increasing financial access are operational challenges and infrastructure weaknesses resulting in increased provider costs.

9. **Five years after the enactment of the Proceeds of Crime Act (POCA), there is still no legislation on terrorist financing and no enforcement of guidance on detailed customer due diligence.** The BPNG should be given enforcement responsibility for financial institutions' due diligence and, in particular, should ensure proper monitoring of accounts, so that salaried employees who are able to deposit sizeable checks with no apparent justification are reported. The BPNG should use its existing supervisory powers to encourage the banks to take customer due diligence more seriously and to use their knowledge of customers to report suspicious activities, especially of potential corruption and theft of government resources.

10. **Details on PNGs Sovereign Wealth Funds (SWFs) need to be carefully designed to ensure that their operations are efficient and consistent with PNG's macrofinancial stability.** PNG's experience with managing resource export proceeds, through the Mineral Resource Stabilization Fund (MRSF) and the use of public trust accounts, has been largely unsatisfactory. As the authorities operationalize their new framework, the key priorities should be on establishing a sound institutional framework that includes appropriate governance structures, funding and withdrawal rules, and risk management and investment strategies.

## Table 1. Papua New Guinea: Risk Assessment Matrix

| | Overall Level of Concern | |
|---|---|---|
| **Nature/Source of Main Threats** | **Likelihood of Severe Realization of Threat Sometime in the Next 3 Years** | **Expected Impact on Financial Stability if Threat is Realized** |
| **Credit Risk**<br>Excessive private credit growth can threaten asset quality. | *Assessment: medium*<br>• Lending to the private sector, owing in part to excess liquidity in banks, has seen a fourfold increase since 2005 (greater than GDP growth and deposit growth) and, after a dip, is expected to continue. | *Assessment: medium*<br>• Although NPLs had increased in 2009 to 2 percent of total loans, the threat to financial stability is lessened by the fact that banks remain profitable and relatively well capitalized. |
| **Concentration Risk**<br>The banking sector exhibits high sectoral loan concentrations, as well as concentrations of loans to single borrowers and depositors. | *Assessment: medium*<br>• Large customers are themselves dependent on commodity prices, which have proved volatile. | *Assessment: high*<br>• Since there are only four banks, the impact on financial stability of shocks to these large customers could be significant. |
| **Operational risk**<br>Operational-risks are significant, given the high frequency of occurrence of security- and fraud-related events. | *Assessment: high*<br>• Security and infrastructure conditions remain challenging. | *Assessment: low*<br>• The impact on financial stability would be low, as long as events remain small in nature. |
| **Exchange Rate Risk**<br>Current account pressures, intensifying from potential delays in the completion of the LNG projects, could adversely affect the exchange rate. | *Assessment: low*<br>• Current account is currently in deficit, but expected to turn positive upon completion of LNG projects in 2014. | *Assessment: low*<br>• Possible downward pressures on the exchange rate are not expected to have a significant impact on banks' creditworthiness, as they have small net foreign exchange positions. |
| **Commodity Price Risk**<br>Declines in commodity prices could negatively affect gold and copper exports proceeds. This would impact the profitability of the corporate sector and, in turn, the asset quality in the banking sector. | *Assessment: medium*<br>• Recent price increase notwithstanding, a slow recovery in global economy could result in a decline in commodity prices. | *Assessment: medium*<br>• Declines in commodity prices would reduce profitability of the corporate sector and have consequent adverse implications for the asset quality in banking balance sheets. |

## Table 2. Papua New Guinea: Key Recommendations

| Measure | Priority | Time frame[1] |
|---|---|---|
| **Banking Sector** | | |
| *Credit Risk* | | |
| • Monitor current and emerging NPLs with regard to loan duration and sectoral impacts of macroeconomic changes; | High | Medium term |
| • Conduct a thorough analysis of counterparty exposure concentrations, with a full definition of interconnectedness; and | Medium | Short term |
| • Conduct a thorough analysis of collateral and related lending exposures to property loans. | Medium | Short term |
| *Liquidity Risk* | | |
| • Develop monitoring systems and conduct stress tests that assume alternative definitions of liquid assets; | High | Short term |
| • Ensure that any withdrawal of government deposits from the banking system is done with careful planning and adequate consultation; and | High | Short and Medium term |
| • Formalize bank liquidity support arrangements with the BPNG, including through repurchase agreements for government securities stock. | High | Short term |
| *Regulation and Supervision* | | |
| • Centralize data management systems; | Medium | Medium Term |
| • Conduct and document a full risk assessment as the basis for the supervisory strategy; | Medium | Short term |
| • Publish a full set of prudential standards, starting with risk management, market and liquidity risk, but also including governance, credit, and operational risk. Financial statement reporting also needs further standardization; | High | Medium term |
| • Increase the range of administrative sanctions and make compliance with prudential standards compulsory; and | High | Medium term |
| • Enhance the capacity of the supervisory staff through training, so that the BPNG can move to full risk-based supervision. | High | Medium term |
| *Systemically important institutions* | Medium | Medium term |
| • Make arrangements for liquidity improvement and contingency planning that reduce the risk profile. | | |
| ***Crisis Management*** | | |
| • Establish a discount window lending program, including repurchase agreements; | High | Short term |
| • Strengthen BPNG's crisis preparedness by developing a contingency planning framework, including internal procedures on emergency liquidity assistance; and | High | Short term |
| • Consider the development of a deposit protection scheme. | Low | Long term |
| ***Government Debt Markets*** | | |
| • Estimate the scale of broader public-sector debt obligations, such as borrowing and guarantees; | High | Short Term |
| • Issue BPNG guidelines to market participants on sound procedures for repurchase transactions; | High | Short Term |
| • Introduce a noncompetitive segment of the auction for smaller investors; and | Medium | Medium Term |

[1] Short term: 12–18 months; medium term: 2–3 years.

| Measure | Priority | Time frame[1] |
|---|---|---|
| • Review the regulatory infrastructure, keeping in mind principles to ensure market integrity and price reporting, to allow seamless over-the-counter trading. | Medium | Medium Term |
| ***Payment Systems*** | | |
| • Implement the proposed National Payment System Development Program; | High | Medium term |
| • Establish a Payment Systems Department in the BPNG, and exercise oversight of all payment and securities settlement systems; and | High | Medium term |
| • Develop regulations/ guidelines for mobile payments and securities settlements. | Medium | Medium term |
| ***Insurance Sector*** | | |
| • Enhance the supervisory functions regarding offsite reporting and monitoring and onsite inspections; | High | Short term |
| • Develop guidance on governance, risk management, and internal controls; and | Medium | Medium term |
| • Implement the International Association of Insurance Supervisors' principles, as appropriate to the PNG setting. | Medium | Medium term |
| ***Financial Inclusion*** | | |
| • Establish a functional coordination mechanism on financial inclusion, including all the government departments and agencies; | Medium | Short term |
| • Set up a national consultative process; and | Medium | Short term |
| • Commence specific data collection on financial inclusion. | Medium | Medium term |
| ***AML*** | | |
| • Give BPNG responsibility for enforcing financial institutions' obligations; | High | Short term |
| • Complete the customer due diligence regime (especially with more focus on monitoring accounts); and | High | Short term |
| • Issue regulations on customer due diligence. | High | Short term |
| ***Sovereign Wealth Funds*** | | |
| • The authorities should decide on the funding and withdrawal rules, institutional arrangements, including organizational structure, roles and responsibilities, and investment strategy for the funds decided by the Government. | High | Short term |

# I. Macroeconomic Setting and Structure of the Financial Sector

## A. Recent Macroeconomic Trends and Outlook

11. **The global financial crisis had only a mild impact on PNG.** This was partly due to the fact that the financial sector was insulated from global capital markets, as there are no significant links to global wholesale funding markets and the use of derivatives and complex financial instruments is limited. Also, the prudent fiscal policy implemented during the commodity price boom left the government in a position to increase public spending to help sustain growth. However, PNG did not escape entirely, as the indirect impact from the decline in some commodity prices took its toll on the external and fiscal positions of the resource rich economy.

12. **Economic growth increased in 2010.** Real GDP growth is estimated to have picked up to 7 percent in 2010, from 5½ percent in 2009, owing to a turnaround in the mineral sector and agricultural production and higher commodity prices. Banks continued to finance a dynamic non-mineral economy, which received an additional boost from construction, transport, and communication activities related to the PNG LNG project. Strong domestic demand, the pick-up in international food prices, and the depreciation of the Kina fuelled inflation in 2010, with headline inflation reaching 7¼ percent in December (12-month rate).

## B. Financial Sector Structure

13. **A favorable external environment and the introduction of financial sector reforms, after a crisis through the 1990s, provided a strong foundation for financial sector expansion.** Total financial sector assets have increased to K26 billion (more than 100 percent of GDP) as of December 2010 from K9.5 billion at the end of 2005, with banking sector assets comprising about 69 percent of the total (Annex II Table A1). Currently, there are four commercial banks, seven authorized superannuation funds (ASFs), five life insurance companies and a number of other nonbank financial sector institutions licensed and regulated by BPNG. The financial sector is largely oriented to serve the formal sector and provides little reach to the very large informal, rural, and self-employed segments of the population.

14. **The largest domestic financial institution, possessing over half of total deposits, is a systemically important institution.** It also has operations in other Pacific countries, most notably its recent purchase of significant operations in Fiji, and has issued convertible notes in Fiji—the first public cross-border issue of its type in the region.

15. **There is no material fixed-income market other than issues offered by the government and the BPNG, and the stock market exhibits very limited trading.** This is despite market capitalization exceeding GDP due to a high number of cross listings with Australia.

## C. Banking Sector Performance and Key Risks

16. **Papua New Guinea's banking system is characterized by strong indicators (Annex II Table A2).** Banks exhibit high asset growth, strong capital levels, profitability, and significant liquidity, but also considerable deposit concentration given the small economy. The banks are primarily deposit-funded, with no significant links to global wholesale funding markets. The level of nonperforming loans (NPLs) as a percentage of total loans are relatively low, and provisioning is high.

17. **Although loan growth has been high, loans account for only one-third of total assets and are heavily oriented to business lending.** Excess liquidity in the system has encouraged the growth in holdings of government securities, but also funded loan growth well in excess of 30 percent per annum over the past few years. More recently, loan growth has slowed to about 15 percent on an annualized basis, which is consistent with nominal GDP growth.

18. **NPLs remain low compared to regional peers and capital asset ratios (CARs) are high (Annex II Table A2)**. The sector CAR for the banking system stood at around 28 percent as at the end of 2010, more than twice the level required by BPNG, and reflect large holdings of government securities with a zero risk weighting. Banking sector profitability has been decreasing, but remains high, including in comparison with regional peers.

19. **Domestic deposits are the primary source of funding, which enabled PNG to avoid the impact of the tight credit markets during the global crisis.** PNG's banking system does not depend on international capital markets for funding, with deposits accounting for about 80 percent of liabilities.

20. **The challenge of sterilizing excess liquidity is straining BPNG's profitability.** Consequently, BPNG resists increasing the stock of central bank bills (CBB) and the policy rate (KFR) is kept at 7 percent.

21. **Property market prices and rents have risen, while supply constraints suggest that the near-term risk of a property-market decline is small.** High real-estate demand and market assessments of potential future constraints relating to the progress of the LNG project are expected to support property valuations in the short term.

22. **Banks have limited exposure to market risks.** PNG's banks hold a traditional asset and liability portfolio structure based on loans and deposits. They hold small foreign exchange positions (which protect them from direct exchange rate risks), while interest rate exposures are small. Banks do not engage in proprietary trading. Wholesale funding is limited, further containing the banking system's vulnerability to interest rate movements**.**

23. **Operational risks are material.** Aside from credit, market and liquidity risks, other risks are operational, including a high security and fraud risk (and cost) in a country where violence and crime are significant.

## D. Stress Tests

24. **Single-factor shocks focused on credit (overall and sectoral), market, and liquidity risks.** The single-factor calculations covered the impact of basic risks (credit risk, interest rate risk, sectoral concentration risk, liquidity risk, and large exposures) on capital. Based on the banking system stress tests, an assessment of related risks is presented in Appendix I.

### Main results

25. **High levels of capital and limited exposures to total lending indicate that the banking system faces little impact from credit risk shocks in the near term.** A uniform increase in NPLs was assumed to be provisioned wholly and charged to capital. Under this assumption, a doubling, tripling, or quintupling of NPLs would have little effect on the CAR, given very low levels of NPLs (less than 2 percent of total loans) and high levels of capital. In order to push the CAR below the recommended 12 percent, NPLs would need to grow to 18 percent of total loans. However, care is needed in assessing the current level of the NPL ratio, which could be compressed by strong credit growth and would normally be expected to increase as the loan portfolio ages.

26. **Loan concentration in the commercial and financial sector could represent vulnerability for the system, but only in extreme situations.** Stress tests were conducted to consider the impact of a shock to asset quality in key sectoral concentrations—i.e., for each bank, a proportion of its loans to a particular sector is assumed to become nonperforming, with no prospect of recovery. The only material impact was from deterioration in the commercial and financial sector, and the shocks would have to be extreme to have a systemic effect.

- It would require 33 percent of the loans to this sector to default, with no recovery, for the CAR to fall below the recommended 12 percent level and, in such a situation, that would be the case for only one bank;
- A 50 percent loan default to this sector, with no recovery, would be required to render this one bank insolvent;
- All loans to the sector would have to default, without recovery, to render three banks insolvent; and
- Credit deterioration in other sectors would have little effect on banks' CAR observance.

27. **Interest rate and exchange rate risks are also limited.** Net interest income was recalculated for different maturity buckets to assess the impact of a parallel move in the yield curve on capital levels. A 50 percent increase or decrease produced negligible impact on the CAR given the current structure of assets and liabilities, as they are predominantly short term and duration matching is high. Foreign exchange risks were also tested, but found to be immaterial. Insufficient information was available to conduct a thorough test on property-market exposures.

**Table 3. Summary of Papua New Guinea Banking System Stress Test Results**

| Capital and Profitability | Number of banks with CAR below: | | | | Percent of banking sector assets in banks with CAR below: | | | | Banking sector ROAA |
|---|---|---|---|---|---|---|---|---|---|
| | 12 pct | 8 pct | 4 pct | 0 pct | 12 pct | 8 pct | 4 pct | 0 pct | |
| As of December 2010 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 4.8 |
| | | | | | Stress Tests | | | | |
| **Credit Risk** | | | | | | | | | |
| NPLs/Total loans increase by 100 pct (4.0%) | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 |
| NPLs/Total loans increase by 200 pct (6.0%) | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 |
| NPLs/Total loans increase by 500 pct (12.0%) | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| NPLs/Total loans increase by 800 pct (18.0%) | 1 | 1 | 1 | 0 | 26.9 | 26.9 | 26.9 | 0.0 | -2.1 |
| **Loan Concentration 1/** | | | | | | | | | |
| 33% of Commercial and Financial Loans become NPLs | 1 | 1 | 0 | 0 | 16.8 | 16.8 | 0.0 | 0.0 | -2.9 |
| 50% of Commercial and Financial Loans become NPLs | 2 | 2 | 1 | 1 | 69.0 | 69.0 | 16.8 | 16.8 | -6.4 |
| 100% of Commercial and Financial Loans become NPLs | 3 | 3 | 3 | 3 | 98.7 | 98.7 | 98.7 | 98.7 | -17.0 |
| Other sectors | | | | | no effect on CAR | | | | |
| **Largest Exposures 1/** | | | | | | | | | |
| 1 largest exposure becomes a total loss for each bank | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| 3 largest exposures become a total loss for each bank | 2 | 1 | 0 | 0 | 46.5 | 29.6 | 0.0 | 0.0 | -3.7 |
| 5 largest exposures become a total loss for each bank | 3 | 3 | 1 | 0 | 98.7 | 98.7 | 29.6 | 0.0 | -6.7 |
| 10 largest exposures become a total loss for each bank | 3 | 3 | 3 | 3 | 98.7 | 98.7 | 98.7 | 98.7 | -12.0 |

| Liquidity | Number of banks with Liquid Ratio below: /2 | | | Percent of banking sector assets in banks with Liquid Ratio below: | | |
|---|---|---|---|---|---|---|
| | 25 pct | 10 pct | 0 pct | 25 pct | 10 pct | 0 pct |
| As of December 2010 | 1 | 0 | 0 | 55.1 | 0.0 | 0.0 |
| Short term deposits decline by 10% | 2 | 0 | 0 | 82.1 | 0.0 | 0.0 |
| Short term deposits decline by 15% | 2 | 1 | 0 | 82.1 | 55.1 | 0.0 |

Sources: BPNG and staff analysis.
1/ December 2009
2/ Note: Liquid Ratio does not include Government Securities or Term Deposits.

28. **A rapid outflow of short-term deposits might pose a potential risk to the banking system**. Vulnerabilities stem partly from the absence of a secondary or liquid interbank market for government securities, but could be mitigated by the very short duration of bank

holdings of these assets (i.e., there are significant weekly maturities). Given also that there are no repo facilities or discount window offered by the BPNG, stress tests examined bank liquidity ratios after adjusting them by excluding government securities from the numerator and term deposits from the denominator. Assuming a 10 percent withdrawal of short-term deposits, two banks would have "adjusted" liquidity under 25 percent. A 15 percent withdrawal would result in a further third bank falling below 25 percent. In such cases, the banks could require support from other sources, including from parent banks or the central bank.[2]

## E. Banking Supervision and Regulation

29. **PNG has significant room for progress in meeting the Basel Core Principles.** Since the reforms of 2000, which resulted in a new Central Banking Act (CBA) and a new supervisory law (the Banking and Financial Institutions Act, BFIA), the BPNG has been developing its supervisory techniques. Acting with the support of other members of the Pacific Governance Support Group (PGSG) and particularly the Australian Prudential Regulation Authority (APRA), the supervision department has developed standards and begun to learn how to use its supervisory tools to enforce those standards. Examination staff is developing a reputation for being competent and knowledgeable supervisors. However, it is essential that the BPNG complete the suite of prudential standards necessary to create an effective regime, enhance the available supervisory tools, and make better use of the tools they have.

30. **The BPNG is developing its supervisory approach, but this will need to be more clearly linked to an overview of the risks in the financial system.** The BPNG is encouraged to conduct its own assessment of the risks to financial stability and to the interests of PNG borrowers and savers that are posed by the current structure and status of the financial markets. The assessment should be documented and then form the basis of the supervision strategy and ongoing monitoring. BPNG's own stress testing should be supplemented by a requirement that financial institutions conduct their own stress tests. The results should be regularly reported to BPNG so as to help focus supervisory resources. This risk assessment should be the basis of a move to full risk-based supervision.

31. **Prudential standards have been issued on key risk areas, but more are needed to complete the supervisory regime.** There are prudential standards issued on minimum capital ratios (consistent with Basel I but without the market risk component), on problem loan classification, on large and related party exposures (a revised large exposures prudential standard was issued in January 2011), the definition of fit and proper, and other matters. However, prudential standards are still urgently needed for governance, risk management, credit risk, market risk, interest rate risk, liquidity risk or operational risk. Equally

[2] The BPNG imposes a minimum "unadjusted" liquid asset ratio of 25 percent.

importantly, the governance and overall risk management of all financial institutions should be subject to clear standards. The BPNG is currently using on-site manuals which cover these risk areas, and the examiners make recommendations based on them.

32. **While the BPNG has most of the tools a supervisor needs, there are some gaps that need to be filled.** The BFIA is a modern statute that provides the BPNG with the basic powers of licensing, standard setting, monitoring, and enforcement. However, while the BFIA provides for the issuing of prudential standards, it does not explicitly make it compulsory for financial institutions to comply with them. Moreover, apart from license conditions (used for remedial actions rather than sanction), the only real administrative sanction available to the BFIA is a determination that a person or institution is not fit and proper, or a license revocation, neither of which are effective for minor failings. The BFIA should be amended to allow the BPNG to impose administrative penalties for failure to comply with prudential standards. The range of administrative penalties should be expanded to include automatic monetary penalties for delayed reporting, private and public statements of censure, and administrative fines at the discretion of the BPNG.

33. **The BPNG could make more use of the powers it has.** The BPNG has the power to insist that a financial institution commission a report from a skilled professional on specific issues defined by the BPNG, but this tool has never been used. The BPNG also requires auditors to report any breach of regulatory requirements by a financial firm, but auditors have never reported breaches (and auditors cannot report weaknesses in areas not yet covered by prudential standards).

34. **Banking supervision needs more stable funding.** License fees currently realize just K250,000 a year (if collected in full) against a cost of supervision of K3.9 million. The balance is made up from BPNG income. Supervision resources were cut in 2008 and 2009 (as were other BPNG functions), because of losses made on monetary policy operations. The principle that financial institutions should pay for their own supervision was adopted by the BPNG for supervision of ASFs and the same principle should apply to banks (and other licensed financial institutions). The level of license fees should be raised, over a three to five year period, to fully meet the cost of supervision.

35. **While the supervision department needs more staff and a more flexible pay system, this should be accompanied by greater accountability.** The BPNG cannot meet its own targets for on-site inspections with the current staff and cannot recruit senior staff from the private sector to add market knowledge and commercial experience. To be able to hire more staff and update its skills with recruits from the private sector, the BPNG should be able to pay more competitive salaries. Greater budgetary and staffing freedom for the BPNG should be matched by strengthened accountability. The existing operational report to the Minister should be expanded to include an account of performance against measurable targets. Both operational and financial reports should be published in a timely fashion, thus

giving Parliament the opportunity to question the BPNG on its performance and its use of licensees' money.

36. **The BPNG should assert itself more rigorously to ensure full compliance with the supervisory regime.** It is good to seek consensus but less desirable to leave necessary prudential statements in draft for over five years (as has happened with the revised large exposures prudential standard). With new tools and the complete suite of regulations recommended above, the BPNG will be in a position to ensure good risk management practices are followed and move to risk-based supervision. It will need further assistance to build capacity to achieve this, so that its committed and professional staff can work in partnership with financial businesses to focus on identifying and managing the key risks in the sector.

## II. Crisis Management and Financial Safety Nets

37. **PNG does not have a crisis management framework in place.** There are no formal coordination arrangements within BPNG or between BPNG and the Ministry of Finance for handling problems in larger institutions or potentially systemic issues. Neither are there arrangements for information-sharing, decision-making and external communication or procedures for emergency liquidity assistance. There has been no experience of bank or deposit-taking institution failure since the regulatory reforms were introduced, although two failures of non-life insurance operations present case studies. No deposit insurance or policyholder protection scheme or similar mechanism exists. Outside of official administration and liquidation, specified in the various financial sector laws, other resolution mechanisms for problem institutions are not fully specified.

38. **The high concentration of the banking system and the lack of interbank secondary markets, repos and discount windows pose significant challenges for systemic stability, should a problem occur**. If liquidity problems emerge in the PNG operations of the three commercial foreign-owned banks, given their relative small size, the parents most likely would be able to provide support. However, if serious problems emerge at at the largest domestic financial institution or at the parent of one of the foreign-owned banks, PNG would have to be able to take the necessary measures quickly to avoid a systemic crisis. PNG has no deposit insurance scheme and delays in deposit payouts in case of liquidation can make the system more vulnerable to runs. The BPNG is working on a repo facility and it should complete this as soon as practical. Further, the BPNG should strengthen its crisis preparedness by developing a contingency planning framework, including internal procedures on emergency liquidity assistance.

39. **The insurance sector has seen two failures in the recent past.** Neither of these failures created systemic risk, which illustrated its resilience to such events.[3] Nonetheless, the experience underscored the importance of both the Insurance Commission and the BPNG putting in place arrangements to deal with and coordinate action in the event of insurer failure.

## III. GOVERNMENT DEBT AND MONEY MARKETS

40. **PNG's overall level of indebtedness has been on the decline and amounted to 32 percent of GDP at the end of 2009, down from 48 percent in 2005**. External debt is mainly concessional in nature and represents 40 percent of the total. Domestic debt represents 60 percent of the overall government debt, up from 48 percent in 2005. However, the domestic debt stock still exhibits an uneven maturity profile caused by the large stock of Treasury bills, with 45 percent of the debt being short term, and bunching maturities of Government Inscribed Stock, starting 2011 with K500 million maturing. Moreover, broader public-sector debt obligations, including borrowing and guarantees associated with the LNG project, the large unfunded pension liability, and the government's commitments under the memorandum of agreement with landowners, constitute significant sovereign contingent liabilities.

Public Debt Stock 2005-2009

| (In million of Kina) | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|
| T bills | 1,797 | 1,151 | 980 | 1,634 | 1,836 |
| Government Inscribed Stock | 1,568 | 1,877 | 2,175 | 2,301 | 2,385 |
| Other Loans | 41 | 31 | 14 | 12 | 7 |
| Domestic Debt Total | 3,405 | 3,059 | 3,169 | 3,947 | 4,228 |
| *As percentage of total debt* | *47%* | *46%* | *50%* | *58%* | *60%* |
| Multilateral | 3,723 | 3,494 | 3,038 | 2,710 | 2,738 |
| Commercial debt | 133 | 124 | 108 | 109 | 90 |
| External Debt Total (K) | 3,856 | 3,618 | 3,146 | 2,819 | 2,828 |
| *As percentage of total debt* | *53%* | *54%* | *50%* | *42%* | *40%* |
| Total debt | 7,261 | 6,677 | 6,315 | 6,766 | 7,056 |
| *Total debt as share of GDP* | *48%* | *40%* | *34%* | *31%* | *32%* |

41. **The foremost challenge for the BPNG is to deal with the excess liquidity in the financial sector.** The main indirect monetary instrument used by the BPNG to absorb excess liquidity is the weekly auction of short-dated central bank bills (CBBs). The BPNG, at its discretion, can provide unsecured lending in case of an overall system liquidity shortfall, but no repo or reverse repo facility is available. There are no general standing facilities available to deposit-taking institutions. Standing facilities are collateralized and priced with reference to the policy rate (typically in a 'corridor' that is symmetrical around the policy rate). These facilities are rules based, short-term (overnight), and can be implemented at the request of a commercial bank around the end of the trading day (if it has short maturities and there are safety valves for the market's liquidity management).

[3] One failure, of a locally owned composite insurer, was only detected and acted on when the insurer was entirely insolvent with incomplete protection to policyholders. The other failure involved a foreign-owned subsidiary and, with co-operation from the home supervisor, policyholders were protected in PNG and all claims paid in full.

42. **Government debt instruments are specifically excluded from the Securities Market Law.**[4] As a result, the regulatory structure of the market is only guided by the respective laws on the instruments. In particular, investor protection is limited and no rules exist on the operation of the secondary market. Also, supervision of the primary market rests with the BPNG and the Treasury, and is limited to monitoring bids and the participation in the primary market. The regulatory gaps would need to be filled should the secondary market become more active and its participants were to include the general public. This would need the cooperation of the BPNG and the Securities Commission.

## IV. Payment Systems

43. **The current legal framework does not recognize payment services as an independent activity.** It also does not address payment system issues like netting, finality, zero-hour protection, using agents to provide payment services, and recognition of electronic payments as a valid means of discharging obligations. The oversight powers of BPNG over payments and securities settlement systems are not categorically stated, and the oversight and regulatory powers of the Securities Commission are inadequate, since it does not have powers to specify operating requirements and guidelines for brokers, to license and oversee registrars and depositories, or oversee settlement systems. Establishing a dedicated Payment Systems Department in the BPNG is crucial to support oversight of all payment and securities settlement systems.

44. **The lack of an inter-bank electronic funds transfer system has resulted in high costs being charged for retail payments.** Small retail customers use expensive check discounting services and cash based domestic remittance services, and automated-trading-program (ATP) and point-of-sale (POS) transaction fees are high. These costs, coupled with the high operating costs of traditional bank branches and issues in meeting know-your-customer requirements, have been a barrier to low-income customers and have led to very limited penetration of banking services. A planned National Payment System (NPS), launched in January 2010, would cover all the issues highlighted above, including an Automated Transfer system (ATS) ;an integrated Real-Time Gross Settlement System (RTGS) and Automated Clearing House/Electronic Funds Transfer system; legal reforms to address payment system issues; a Central Securities Depository (CSD) with linkages to the ATS for securities settlement and for collateralized liquidity support mechanisms; and finally a card payment switch.

## V. Insurance and Superannuation

45. **Insurance companies are not major players in the PNG financial sector**. Recent insurance sector performance has been profitable, and the non-life sector has shown growth

---

[4] Refer Market Law 1997, Article 2(f).

in real terms. The non-life sector is making underwriting profits and is further supported by investment income. The life sector's premium income is not sufficient to cover the claims, commission, and operating expenses and is reliant on investment income to make profits. The non-life sector has benefitted from an upswing in the underwriting cycle and a low incidence of major losses.

46. **The small life sector has significant asset concentration due to its size.** The sector is heavily invested in properties, representing 42 percent of total assets at end-2008, followed by investments in equities (17 percent) and cash and bank deposits (10 percent). Only 3 percent of the total assets of the life sector are invested in Government securities. The total assets of the life sector contribute only 1 percent to the total assets in the financial system as of end-2008. The sector does not make significant use of reinsurance. As at the end of 2008, only 0.68 percent of the business was reinsured. Other risks in this sector, particularly mortality due to HIV/AIDS and morbidity, are mainly managed through exclusion clauses in policy contracts or by prior medical testing.

47. **Superannuation is a relatively large component of financial sector assets and the dominant source of long-term investment, although it remains largely focused on the small formal sector.** All funds, with the exception of the Defense Force scheme, are defined contribution in nature. The two largest funds, Nasfund and Nambawan Super, represent 87 percent of total assets and predominantly cover private sector and public sector employees, respectively.

48. **After the sharp deterioration in 2008, returns of the two major ASFs rebounded in 2009.** The only significant negative impact that the global markets turmoil has had on PNG's financial sector has been on the investment returns of ASFs. The equities exposure in the two major funds in 2008 were about 55–60 percent of the total investment portfolio, which led to 70–75 percent lower, but still positive, returns compared to 2007. In 2009, Nambawan's profits increased by 40 percent, and Nasfund's by 177 percent compared to the dip in 2008.

**Table 4. Papua New Guinea: Investment Portfolios of Key Superannuation Funds**

(All amounts in K millions unless otherwise specified)

| | DFRBF | | Nambawan | | Nasfund | |
|---|---|---|---|---|---|---|
| | 2008 | % | 2008 | % | 2009 | % |
| Listed Securities | 194 | 65 | 993 | 38 | 709 | 40 |
| Unlisted Securities | 27 | 9 | 459 | 18 | 74 | 4 |
| Investment Property | 38 | 13 | 351 | 13 | 427 | 24 |
| Loans | 2 | 1 | 21 | 1 | 89 | 5 |
| Investment Securities | 16 | 5 | 370 | 14 | 285 | 16 |
| Cash and Deposits | 21 | 7 | 428 | 16 | 196 | 11 |

| | | | | | |
|---|---|---|---|---|---|
| Other assets | 1 | 0 | | 0 | |
| Total | 299 | | 2,622 | | 1,779 |
| **Memorandum items** | | | | | |
| - Active members (‘000s) | 2.0 | | | | 129.3 |
| - Inactive members ('000s) | 1.8 | | | | 168.0 |
| Total | 3.8 | | | | 297.3 |

Source: Fund Accounts and Reports, BPNG, Staff Analysis.

## VI. Financial Inclusion

49. **Nearly 85 percent of the adult population is excluded from the formal financial sector.** Approximately 650,000, or 10 percent of the population and 17 percent of adults, currently have access to formal financial services. This implies that over 3.3 million people do not have a safe place to keep their savings or access loans for an emergency or any other purpose. The majority of the financially-excluded people reside in rural communities, who live a cash and subsistence lifestyle with minimal infrastructure and savings for school fees, and emergency health and other needs. Although the number of people included in the financial system is growing as providers seek to expand services, reducing financial exclusion is a major challenge.

50. **The government is committed to increasing financial inclusion**. The PNG Development Strategic Plan 2010–2030 recognizes that the financial sector has failed to reach the majority of the population. It identifies expanding microfinance banking services to all districts in PNG as a priority. In addition, the NPS Development Program aims to encourage the introduction and use of innovative, convenient, and cost-effective new retail payment instruments, with a special focus on the currently ‘unbanked’ sectors of the population.

51. **There are important structural barriers to financial access from the perspective of service providers.** These include operational challenges, related to the high level of violence and weak security situation, especially in the more urban areas, and corruption (PNG ranks in the lowest quartile on an international corruption ranking index). Moreover, weaknesses in infrastructure and the limited financial literacy of the population are also impediments to the development of the financial sector.

## VII. Anti-Money Laundering Framework[5]

52. **Five years after the enactment of the Proceeds of Crime Act (POCA), there is still no legislation on terrorist financing and no enforcement of guidance on detailed customer due diligence.** With its worrying level of corruption, PNG is viewed as subject to a serious money laundering risk. POCA creates some very basic obligations on financial institutions for customer identification and transaction reporting. However, enforcement responsibility lies with the Financial Intelligence Unit (FIU), which has neither the resources nor the expertise to discharge it. The BPNG should be given enforcement responsibility for financial institutions' due diligence and, in particular, should ensure proper monitoring of accounts, so that those salaried employees who are able to deposit sizeable checks with no apparent justification are identified and reported. Immunity from civil action by customers whose transactions are reported is important, but POCA goes further and gives total immunity from any, even criminal, proceedings for those who report suspicious activities. Institutions should be required to follow FIU instructions in respect of funds that are the subject of reports, and immunity should be modified so as to allow for penalties for those who ignore such instructions. The Financial Action Task Force (FATF) requires certain obligations to be in the form of legislation, whereas compliance with the guidelines issued by the FIU is not enforceable under the POCA. These shortcomings put PNG at risk of being assessed as noncompliant with FATF recommendations—an Asia Pacific Group mutual evaluation was conducted in October 2010, the results of which have not yet been finalized.

53. **Against this background, there are important areas where the AML/CFT framework could be strengthened.** These include (i) introducing legislation on terrorist financing; (ii) issuing a regulation on customer due diligence, thus creating an obligation for account monitoring; (iii) giving BPNG enforcement responsibility; and (iv) removing the blanket immunity given to institutions that report suspicious activities. It should be noted that there is limited awareness of AML obligations in the insurance sector.

## VIII. Sovereign Wealth Fund Developments

54. **PNG's experience in managing resource (copper, gold and oil) export proceeds, through the Mineral Resource Stabilization Fund (MRSF) and the use of public trust accounts, has been largely unsatisfactory.** Both of these revenue-management methods had stabilization objectives, and envisioned domestic holdings and investments. However, the MRSF proved procyclical because of poor integration in the budget and fiscal policy objectives. Also, the management of the public trust accounts has raised several issues, including very low returns and costly BPNG absorption of excess liquidity. The allocation of

[5] The mission did not conduct a full AML/CFT assessment but considered compliance with Principle 18 (financial abuse) of the Basel Core principles, from which assessment the conclusions in this section are drawn.

revenues to many trust accounts for specific purposes limited the spending flexibility of the government and raised governance issues, especially regarding the integrity of trust account transactions.

55. **In view of the large revenues anticipated from the LNG project, the Government decided in November 2010 to form a pool of resources that will constitute the basis for the establishment of three SWFs.** The objectives of these funds are (i) fiscal stabilization, (ii) savings, and (iii) infrastructure development, respectively**.** This arrangement was proposed by the government based on the PNG SWF Working Group's report. In March 2010, a joint Department of Treasury-BPNG SWF Working Group had been formed, with a mandate to: (i) assess the appropriateness of the current framework; (ii) seek feedback from international institutions (including the IMF, the World Bank, and Asian Development Bank (ADB)) and other governments; (iii) canvass possible options for government consideration, including the possible creation of an offshore fund to manage windfall revenues arising from the LNG project; and (iv) report back to the National Economic Council by June 30, 2010.

56. **To help the authorities in the implementation process, the team offered broad operational guidelines on the establishment and management of an SWF.** In particular, the authorities were encouraged to take into consideration the consistency between an SWF's objectives and the macroeconomic framework, especially with regard to: (i) the roles, responsibilities, and institutional arrangements of the SWFs; (ii) the adoption and implementation of funding and withdrawal rules; (iii) risk management frameworks and investment strategies; and (iv) approaches to address issues regarding transparency, accountability, and governance.

## Annex I. Observance of Financial Sector Standards and Codes—Basel Core Principles for Effective Banking Supervision

### A. Summary, Key Findings, and Recommendations

57. **The BPNG is developing its supervisory regime but there is substantial work to be done to complete it.** The supervisory regime is based on the BFIA, which was enacted in 2000 and is supplemented by prudential standards whose coverage includes minimum capital ratios, asset classifications, large and related party exposures and other matters. However, there remain substantial gaps, with no detailed requirements relating to key risk areas such as liquidity risk, operational risk, interest rate risk and market risk and no standards on risk management or governance. The absence of proper enforcement of defenses against money laundering is particularly troublesome, in a country where corruption, robberies and other violent crime remain worryingly high and the risk of proceeds from these crimes flowing through banks must be considerable. While the capital, asset quality and liquidity position of the banks appears strong in 2010, the position could change as the banking system develops and grows. The BPNG needs to conduct a proper risk assessment to focus its supervisory priorities. It should complete the supervisory regime and make fuller use of its powers. The staffing, pay flexibility, and accountability of the BPNG must be enhanced to enable it to fulfill its role.

### B. Introduction

58. **At the request of the BPNG, the compliance by Papua New Guinea with the Basel Core Principles** was conducted in May 2010 in the context of the FSAP. The assessment was conducted by Valeria Salomao Garcia of the World Bank and Richard Pratt, independent consultant. The supervisory regime was assessed using all the essential and additional criteria in the methodology, although this was not the subject of an agreement with the authorities.

### C. Information and Methodology Used for Assessment

59. **The mission followed the 2006 Core Principles methodology.** The mission reviewed the self assessment prepared for the mission by the BPNG and other BPNG data—much collected from the BPNG's helpful web site. The CBA, BFIA and POCA were all reviewed, along with the prudential standards issued by the BPNG under Section 27 of the BFIA. The mission met representatives of the government, the BPNG, and the FIU. The mission was also given assistance and data by banks, licensed financial institutions and accountants. All interlocutors responded freely to the mission. There were no factors impeding the assessment.

### D. Institutional and Macroprudential Setting, Market Structure—Overview

60. **Papua New Guinea is a parliamentary democracy.** The Government is drawn from elected members of the National Parliament. The Head of State is HM Queen Elizabeth, who is represented in PNG by the Governor General. The Government is responsible for fiscal policy and the Governor of the BPNG has independent responsibility for monetary policy. The BPNG is also the supervisor of banks, life insurance companies and pension funds (locally called superannuation funds).

61. **The financial sector is dominated by the largest domestic bank**. The dominant bank is domestically owned and the other three commercial banks are foreign owned. This bank in its present form is the result of the privatization and then purchase of a previously state-owned bank and its shareholders include the Government (with a direct shareholding of 23 percent) and other institutional investors, most of which are domestic pension funds. The dominant bank holds half of PNG's banking system assets and liabilities and has 85 percent of deposits by volume. It is the only bank with a significant branch network in the country. The subsidiaries of two Australian banks hold most of the balance of banking system assets and a fourth, a subsidiary of a Malaysian bank has a further one percent.

62. **Total assets of the four banks are 15.5 billion Kina (approximately US$5.1 billion), which amounts to 62 percent of GDP.** There are two small microfinance banks, both of which are joint ventures in which the government has an interest. In addition, there are 8 licensed financial institutions, which are privately owned. The total assets of these non-bank licensed financial institutions and the microfinance banks are 420M Kina (US$130 million). In addition, there are credit unions, regulated under separate legislation, which provide savings and lending facilities to members recruited on the basis of employment or province. There is a stock exchange but liquidity is thin and the apparently large capitalization (over 200 percent of GDP) is a direct result of substantial cross listings. In practice, the domestic capital market is largely confined to the primary market in short term Treasury and BPNG bills almost all of which are bought and held by the commercial banks.

63. **The banking system appears to have substantial capital but this may not be far in excess of its need.** The minimum risk asset ratio is 12 percent but the banking system as a whole has capital at around 25 percent of risk weighted assets. The risk-weighted CAR is high, in part because of the zero risk weighting of the government bonds that form a substantial part of the assets of banks. Banks are also holding high levels of capital to make room for large loans to single borrowers (limited to 25 percent of capital). The banks also hold capital to anticipate further credit growth, following from the three fold increase since 2004 (running at 35–40 percent a year until 2009 when it fell back to 17 percent). Lending as a proportion of total bank assets remains modest at about a third, with securities (mostly government bonds) accounting for half the assets. Most of the remaining assets are

held in cash. The banks are profitable with returns on assets of 3.3 percent and returns on equity of 27.7 percent.[6]

64. **The banks appear to be highly liquid but some instruments defined as liquid may not, in practice, be realizable to meet short term liquidity needs.** The BPNG imposes a minimum liquid asset ratio of 25 percent and, in practice; the ratio has been above 50 percent for most of the period since 2005. The banks point out that 95 percent of their deposits is for periods of three months or less. Corporate depositors predominate and they are potentially very mobile and sensitive to interest rates. The dominant bank benefits from being the main recipient of substantial government operational and trust funds and these funds could reduce substantially if the Government adopted a more disciplined approach to its use of commercial bank accounts. Moreover, the banks' liquid assets include substantial holdings of short-term Treasury or BPNG bills, for which there is no secondary market, no active interbank market, no repo facilities with the central bank, and no discount window. It is unlikely that these apparently liquid assets could be rapidly turned into cash in the event of the loss of substantial commercial or government deposits.

65. **Supervision is conducted by the BPNG, which was created in its present form by the CBA in 2000**. The supervisory powers of the BPNG, which is the sole supervisory authority for banks, are provided by the BFIA. The BFIA defines two kinds of financial institution: banks and licensed financial institutions, collectively known as authorized institutions. Licensed financial institutions are permitted to take deposits but, unlike banks, may not offer demand deposits or issue checkbooks. Microfinance banks are exempt from the requirement to be authorized but are subject to conditions which reapply the entire regulatory regime except for that of minimum capital, where they are permitted to hold the same level of capital as licensed financial institutions (K1.5million), even though, unlike such institutions, the microfinance banks may offer demand deposits. Defenses against money laundering (but not terrorist financing) are established in the POCA, enacted in 2005, with guidelines on customer due diligence issued in 2007.

66. **The BPNG is headed by the Governor, who exercises the supervisory powers and a Board.** Both the Governor and the Board are appointed by the Head of State of PNG, acting on the advice of her PNG Ministers. The BPNG publishes an annual report of its financial performance and prepares an operational report for the Minister of Finance. Data on the financial strength of the banking system as a whole is prepared fortnightly and the fortnightly statistics are published on the BPNG web site. Other data, including laws and regulations are also available on the web site. The BPNG is staffed by professional, competent, and diligent supervisory staff, who exercise their functions without apparent compromise to their independence from the government.

---

[6] Source: BPNG.

## E. Preconditions for Effective Supervision

67. **Papua New Guinea's economy remains primarily based on agriculture with the developed economy dominated by the exploitation of minerals.** For 75 percent of the population, agriculture provides the means of sustaining livelihood. Mineral deposits, including copper, gold and oil account for nearly two thirds of export earnings. More recently, the exploitation of natural gas reserves has led to a substantial new LNG project that is likely to provide very significant benefits in terms of export earnings and government revenues. The foreign exchange receipts from mineral exploitation are held by the BPNG, which provides corresponding funds in domestic currency to the Government. Profits from mineral exploitation are held in trust funds, some of which are held at BPNG and some are drawn down by the government and placed in the largest domestic bank.

68. **With strong revenues from minerals exploitation, the fiscal position was strong until 2009, when increased spending and lower commodity prices caused a substantial deficit.** Since 2006, the budget has been broadly in balance with surpluses not exceeding 3 percent of GDP. In 2009, eased constraints on trust fund spending and a drop in commodity prices resulted in a fiscal deficit of 8 percent. Total GDP growth was over 7 percent between 2007 and 2008 easing only slightly to below 5 percent in 2009. Inflation has been high, temporarily, peaking at over 13 percent in Q3 of 2008 during the global fuel and food price spike but reducing to just under 6 percent in 2009 following an increase in the BPNG policy rate and the action of the BPNG in issuing bills to absorb liquidity and dissipation of these price effects.

69. **The legal infrastructure is largely in place but challenges remain, particularly with the accuracy of official registries and the certainty of the judicial system.** The Companies Act is not untypical of that found in other Commonwealth countries and follows the provisions in New Zealand's company legislation. All companies file accounts (although not all are audited), which are available for a fee. Banks suggest that the quality of such accounts is acceptable. Private property laws can be enforced and the legal system can be effective. For example, a challenge to the legal authority of the BPNG to impose certain obligations was dealt with quickly and robustly by the courts. On the other hand, for private citizens the judicial system may be slow including recovery of collateral that can be subject to delay. The level of fraud and corruption is a serious concern. This creates a substantial money laundering risk for the banks and has also infiltrated the judicial system. An Insolvency Act is in place, but it dates back to 1951 and may not be suitable for all circumstances in a modern economy. For banks, the BFIA provides the basis for the BPNG to appoint a statutory manager to take control of a bank and, if necessary, wind it up. Outside the urban areas, the land registry information on land tenure may not be comprehensive and where it exists, may not be reliable. The registering of charges on property is also subject to delays. Similar problems arise with respect to mortgages on ships and aircraft.

70. **Papua New Guinea has adopted IFRS and is served by the major accounting firms.** The Certified Practicing Accountants Association of Papua New Guinea (CPAPNG) maintains a register of qualified accountants and keeps track of its members' continuing professional development. There is no effective monitoring of accountancy standards but all banks and most of the licensed financial institutions are audited by one of the three global accounting firms with a presence in PNG. The BPNG has the authority to object to an auditor who fails to apply international standards but has never done so.

71. **Security concerns raise the cost of doing business in Papua New Guinea. A major concern for banks is the level of violence in Papua New Guinea.** Banks' staff and management are subject to threats against their person, kidnapping, armed robbery and attack, particularly (but not only) in the rural areas. Bank branches have to be provided with heavy security and the dominant bank protects its branch network with its own extensive security force. That said, profits are high, after allowing for these costs.

72. **Telecommunications, power supplies, and the road network are subject to failure.** Power supplies can be interrupted but banks often have their own supplies. Communication with branches throughout the country is by broadband internet which is available for banks, although only the dominant bank has a nationwide network of branches. The road network is far from comprehensive and the state of the roads is the subject of complaints in the local press because of frequent landslips and road blocks established by groups engaged in violent inter-village disputes or seeking to impose unofficial tolls on passing traffic.

73. **Market discipline is limited and there is no depositor protection. For the domestic retail market, there is only one large systemic bank with a national branch network.** Foreign-owned banks tend to focus on niche markets or the commercial sector. Competition is clearly limited as is evident from the high returns enjoyed by banks and the wide spreads.BSP has an effective monopoly on accounts from Government (including operational accounts and the accounts of the trust funds holding revenues from mineral exploitation). On the other hand, banks report that there are narrow margins on corporate lending where competition is more direct. There is no depositor protection scheme and no explicit government guarantee of banks or other financial institutions. There is no BPNG repo facility (although one is in preparation) no discount window and no facility for BPNG to buy bills from the banks to relieve liquidity shortages. The BPNG has stated, that government securities may not be used for collateral but that it would be willing to lend, on an unsecured basis, to banks if necessary.

## F. Main Findings

**Principle 1: Objectives, independence, powers, transparency, and cooperation**

74. **The BPNG acts independently but its independence should be reinforced with greater freedom over fees, staff salaries and the budget.** There is no evidence of

government interference in the operations of the BPNG, whose independence is underpinned by statute. A desire for consensus has resulted in excessive delays as banks have resisted regulatory changes and the BPNG should assert its authority, after allowing reasonable time for consultation on such changes. The BPNG has professional and committed staff with a growing reputation in the financial sector. However, it cannot currently meet its targets for on-site inspections and does not have the staff to carry out sufficient analyses of risks, trends, financial stability and other developments. Banking supervision is currently largely financed from BPNG profits, and has been cut back when those profits dip. The principle (already adopted for superannuation and insurance) that the regulated sector should pay the costs of regulation, should be extended to banks. The Governor should have the power to set license and annual fees for authorized institutions under the BFIA and should, over a transition period, increase fees until they cover supervision costs. Pay for staff should be freed from Government pay scales and set at a level that allows regular transfers to and from the private sector so as to refresh BPNG skills with up to date financial sector experience. Staff skills should also be enhanced through a proper training needs analysis producing a training program that reflects this analysis and is delivered using all available techniques, including TA where appropriate.

75. **The BPNG has the basic powers it needs but should be given a wider range of sanctions to improve enforcement.** The essential powers to license, set standards, monitor standards and enforce them are in place. However, the sanctions available to the BPNG are limited to the imposition of license conditions (which are remedial rather than sanctioning instruments) and revocation (either directly or by determining that a person or institution is not fit and proper). These penalties are too heavy for many breaches, with the result that minor breaches are tolerated. The BPNG does not consider timeliness and quality of quarterly reporting by authorized institutions to be sufficient. The wider range of penalties should include statements of censure (public and private) and monetary penalties—automatic modest fines for late or inadequate submissions of returns and heavier penalties for more serious breaches. The BFIA should also allow the BPNG to impose formal sanctions where an authorized institution fails to comply with the prudential standards—the basis instrument used for imposing regulatory obligations. The BPNG will need to devise guidance for applying these sanctions in a proportionate and consistent manner.

76. **Accountability of the BPNG should be strengthened.** The additional budgetary and other freedoms recommended in this assessment should be balanced by strengthened accountability. Financial statements should be published with the minimum of delay. The BPNG's operating report should include specific objectives and targets for the BPNG to meet and account of performance in reaching those targets. This report should also be published and Members of parliament encouraged to question the BPNG on its performance.

**Principles 2–5: Licensing and structure**

77. **The BPNG has set out detailed criteria for license applicants but should strengthen the governance requirements.** One prudential standard defines the fitness and properness of individual officers and Schedule 2 of the BFIA provides a broad overview of the requirements of license applicants. These provisions cover most of the ground but there needs to be more focus on the governance of the applicant. Applicants should be required to demonstrate that they have adequate governance arrangements, including non executive directors, an appropriate balance of skills on the Board, proper internal controls (including internal audit) and an appropriate risk assessment and mitigation strategy.

78. **The BPNG has to be informed about changes in significant shareholdings but should also have power of veto over significant acquisitions.** The BFIA provides that authorized institutions should seek permission from the BFIA for changes in significant shareholders or indirect controllers. This is appropriate. Decisions on such matters should be on fit and proper grounds and be taken solely by the BPNG. Currently, the BFIA gives a role to the Minister in these decisions and this should be removed as it compromises independence—particularly as the BPNG has indicated that, at present Government support is necessary to reject applications. It should not be dependent on the Government for such decisions. There is no requirement that an authorized institution should seek permission for major acquisitions and this leaves the risk that a bank may make an investment that could affect its risk profile, without the BPNG being informed in advance. This must be rectified by a requirement that such acquisitions should be subject to prior consent of the BPNG. To back up the powers in this context, the BPNG's information gathering practices should extend all the way up the chain of ownership to the ultimate beneficial owner. It has the power to seek this information and should use it.

**Principles 6–16 and 17: Prudential regulations and requirements**

79. **The BPNG has issued prudential standards imposing certain requirements but should complete the regime by issuing standards on the remaining key risks.** Although there is a regulation making power in the BFIA, in practice, the BPNG imposes detailed regulatory obligations by means of prudential standards on such matters as capital adequacy, asset classification, large and related exposures, foreign exchange transactions and other matters. The BPNG reinforce these standards by referring to its excellent on-site manual, that provides guidance on the appropriate requirements for risk management overall and specific risk areas. However, the on-site manual is not public and is not a substitute for specific regulatory requirements which could, if the recommendations in this assessment are followed, be enforced using an enhanced sanction power and on compliance with which, auditors would be expected to report.

80. **There are substantial gaps in the regime.** Notwithstanding the on-site manuals comprehensive guidance, there are no standards imposing an overall risk management

framework, which would include a requirement for risk assessment, risk mitigation, controls, training and evaluation. Moreover, there are no standards on key risk areas such as market risk, interest rate risk in the banking book, liquidity risk, credit risk or operational risk. As already noted, the apparently strong position of the banks in capital, liquidity, asset quality and interest rate cover, may be subject to change in the years ahead and it is important to ensure that the appropriate risk management techniques are in place.

81. **Some of the existing prudential standards should also be strengthened.** Authorized institutions should be required to monitor the value and collectability of collateral and the ability of the borrower to repay throughout the life of the loan rather than just at the acceptance stage, as well as required to have procedures for continuous oversight of problem assets and collecting on past due obligations. The large exposures standard includes no aggregate limit on such exposures and the definition of those who should be regarded as connected together for the purpose of the standard is too narrow. This leaves the risk that some interconnections may not be captured in the reporting or the authorized institutions' own risk management. The definition of parties related to the lending institutions also needs broadening and the provisions preventing participation by a beneficiary in the loan approval process should be made more comprehensive.

82. **Authorized institutions need access to a guaranteed liquidity facility.** The risks associated with the absence of a liquidity regulation are exacerbated by the absence of any real interbank market in liquidity, the absence of a discount window and the absence of a repo facility. In these circumstances, the government and BPNG bills that make up most of the authorized institutions' assets may not be capable of being turned into cash. The BPNG is working on a repo facility and should complete this task with all possible dispatch.

83. **The priority should be the risk management framework and the standard on market risk (including interest rate risk).** All gaps in the prudential regulatory system should be filled but the highest priority is a standard on a risk management framework. This will give the BPNG the opportunity to enforce the detailed guidance in its on-site manuals, arguing that the advice based on these manuals are what is necessary to meet the required risk management standard. The manual is least useful in respect of market and interest rate risk, since it gives guidance for the Australian market, which is hardly relevant for PNG. While market risk may still be low in PNG, the structure of the banking book, with long term loans and short term deposits may well give rise to interest rate risk in the banking book that should be actively managed.

**Principle 18: Abuse of financial services**

84. **Five years after the enactment of the Proceeds of Crime Act (POCA), there is still no legislation on terrorist financing and no enforcement of guidance on detailed**

**customer due diligence.**[7] With its worrying level of corruption, PNG carries a serious money laundering risk. POCA creates some very basic obligations on financial institutions for customer identification and transaction reporting. However, enforcement responsibility lies with the FIU which has neither the resources nor expertise to discharge it. The BPNG should be given enforcement responsibility for financial institutions' due diligence. While the BPNG may consider that the risk of terrorist financing is low, the current legislation (which focuses on the proceeds of crime) does not cover the abuse of financial institutions by those who would seek to use legitimate funds to promote terrorist acts in the future.

85. **The guidance on customer due diligence should be strengthened.** Existing guidance leaves a number of gaps, most notably the absence of any requirement for an authorized institution to have policies and procedures for monitoring the accounts of all customers against a profile of their expected activity. Such monitoring would identify those salaried employees who are able to deposit sizeable government checks with no apparent justification are identified and reported. There should be a customer acceptance policy in each institution that defines the customers that will be accepted and ensures that high risk customers are only accepted where there is appropriately senior sign off.

86. **Immunities given to authorized institutions should be modified so as to ensure appropriate action is taken in respect of suspect transactions.** Immunity from civil action by customers whose transactions are reported is important but POCA goes further and gives total immunity from any, even criminal, proceedings for those institutions who report. Institutions should be required to follow FIU instructions in respect of funds that are the subject of reports and immunity should be modified so as to allow for penalties for those who ignore such instructions.

87. **The Financial Action Task Force (FATF) requires certain obligations to be in the form of legislation, whereas compliance with the guidelines issued by the FIU is not enforceable under the POCA.** The FIU has the power to issue regulations and should use it to implement the customer due diligence obligations. The present regime is clearly incomplete. Quite apart from the risks to financial institutions of operating without adequate money laundering and terrorist financing defenses, unless remedial action is taken soon, Papua New Guinea would be in danger of being regarded as non compliant with the FATF recommendations. This in turn could carry severe consequences for the cost of doing business.

88. **While completing the AML/CFT regime is the priority, the BPNG should not forget the need to cover other forms of financial abuse as well.** Basel principles require

---

[7] The mission did not conduct a full AML/CFT assessment but considered compliance with Principle 18 (financial abuse) of the Basel Core principles, from which assessment the conclusions in this paragraph are drawn.

supervisors to enforce defenses against financial abuse in general rather than just money laundering. The BPNG should consider the implications of this when drafting its AML prudential standard.

**Principles 19–23: Supervisory methods and approach**

89. **The BPNG has come a long way in developing its supervisory techniques but needs to adopt a more forward looking and holistic approach.** On-site manuals, essentially copied from those issued by the Australian regulator and support given through the Pacific Governance Support Group have been of very considerable value in strengthening the methods. On-site examinations are well planned and thorough. Quarterly reporting also covers the key financial information. However, the BPNG does not do enough to make an overall assessment of the risks of the financial sector as the basis for its supervisory strategy. Comparisons of trends, the risk profiles of different institutions and, in particular judgments about likely future developments in key risk areas are not undertaken. The BPNG should undertake such analyses.

90. **Better use could be made of the supervisory powers and tools available.** No auditor has ever reported a breach of compliance (as they are required to do under the BFIA and prudential standards). Meetings with auditors following on-site examinations are rare. There is no effective enforcement of accounting and auditing standards, beyond checking the completion of continuing professional development obligations. The BPNG should discuss with auditors what it expects from them in terms of reporting, should hold post examination meetings as a matter of routine and should discuss with the CPAPNG how enforcement of accounting and auditing standards can be made more effective.

91. **Not all issues identified in on and off-site reporting are followed up as effectively as they should be.** The BPNG recognizes its responsibility to follow up recommendations and action take to remedy weaknesses. However, the process currently takes too long and can be uncertain. There are long delays between examination and report (the mission found four-six months to be quite common). Allowing for time for the management response and subsequent consideration by BPNG of any proposed action, the action plan may be agreed six-nine months after the examination. Where the response is inadequate, the BPNG has, at present, no available sanctions beyond repeated letters and meetings. Internal process and paper handling need to be sharper in the BPNG to allow more vigorous follow up and the BPNG should use its sanctions powers (as recommended in this assessment) to assert its authority to insist on prompt remedial action. To make sure that all issues are properly identified, the BPNG should ensure that its staff receives training on interest rate and market risk.

**Principles 24 and 25: Consolidation and cross-border issues**

92. **The BPNG engages in consolidated supervision and has the power to exchange information with foreign regulators but should exploit the opportunities this provides**

**more vigorously.** Groups must prepare reports on a consolidated basis with the results for licensees shown separately as well. The BPNG should develop its methodology for imposing overall prudential requirements on consolidated groups and should look back through ownership structures to find the overall owners and controllers. The BPNG has only concluded one MOU (with the Solomon Islands, although there are draft agreements with Fiji, and Australia. The BPNG should complete the suite (and add Malaysia) and exploit the opportunities this provides by discussing with foreign supervisors what regular and exceptional information should be exchanged. In particular, the BPNG should always seek information on key officials of authorized institutions when they are seeking permission to work in Papua New Guinea and have employment history in one of the MOU counterparts.

**Table A1.1 Papua New Guinea: Summary Compliance with the Basel Core Principles**

| Core Principle | Comments |
| --- | --- |
| 1. Objectives, independence, powers, transparency, and cooperation | The BPNG is given appropriate responsibilities, has most of the necessary powers and is able to assert independence in its day to day operations. However, its independence could be strengthened and its accountability more robust. |
| 1.1 Responsibilities and objectives | The BPNG has the main powers, responsibilities and objectives that are appropriate for a bank supervisor. Weaknesses identified in this assessment do not detract from this general conclusion |
| 1.2 Independence, accountability and transparency | The BPNG acts independently in its day to day activities. However, there are powers for the Minister to intervene in decisions about shareholders of banks, the funding of supervision is dependent on the operating profits of the BPNG (and is not sufficient), the desire to reach consensus with the industry results in substantial delays to new regulation and accountability arrangements could be strengthened. |
| 1.3 Legal framework | The legal framework provides the appropriate provisions for authorisations and ongoing supervision. |
| 1.4 Legal powers | The BPNG has most of the necessary powers but there is no enforcement provision for prudential standards and insufficient administrative sanctions. |
| 1.5 Legal protection | Protection against liability for decisions taken in good faith is sufficient. |
| 1.6 Cooperation | There is scope for domestic and international cooperation. There is no protection for the confidentiality of information passed to the Minister. |
| 2. Permissible activities | The law defines the permissible activities of banks and other financial institutions. |

| Core Principle | Comments |
|---|---|
| 3. Licensing criteria | The BFIA provides for licensing criteria within the BFIA and in Schedule 2 – relating, in particular to the fitness and properness of the applicants and their owners and controllers. There are no criteria that require good corporate governance and an appropriate balance of skills on the Board of the applicant. |
| 4. Transfer of significant ownership | The BFIA gives the BPNG the power to review and reject the transfer of shareholdings of 15 percent or more of financial institutions. In practice, the BPNG does not regularly obtain information on second and third tier shareholders. |
| 5. Major acquisitions | Although, in practice, financial institutions seek approval for major acquisitions, there are no laws and regulations that require them to do so. |
| 6. Capital adequacy | The BPNG imposes capital requirements in accordance with the first Basel capital accord but has not implemented any requirements for market risk. The absence of requirements for credit risk also affect the rating for this principle |
| 7. Risk management process | The BPNG have issued a prudential standard that requires the CEO and Board to certify that all major risks have been identified, that systems and controls are in place to mitigate them and that effectiveness has been monitored. However, there is no requirement for a comprehensive risk management framework. The BPMG uses an on-site module on risk management and uses this to make recommendations to specific institutions. |
| 8. Credit risk | The BPNG has an on-site module, which is used to make recommendations on credit risk management. There are also requirements on asset quality. However, there are no specific credit risk management requirements such as lending controls and limits. |
| 9. Problem assets, provisions, and reserves | The BPNG have issued a prudential standard on asset classification that defines how to treat problem loans. The standard does not, however, require systems and controls for early identification of asset deterioration. |
| 10. Large exposure limits | The BPNG has appropriate limits on large exposures but has not aggregate limit for all such exposures. |
| 11. Exposure to related parties | The BPNG have issued a prudential standard that limits exposure to related parties but the definition is too narrow, there are insufficient requirements for detecting related party loans and the regulation does not prevent those benefitting from such lending from having any role in their approval. |

| Core Principle | Comments |
| --- | --- |
| 12. Country and transfer risks | There are general requirements to monitor transfer risk but no specific requirements on country risk. |
| 13. Market risk | There is no requirement for capital to be held against market risk. |
| 14. Liquidity risk | The proper management of liquidity is a criterion for fitness and properness in Schedule 2 to the BFIA. Although the on-site module on liquidity risk forms the basis for recommendations to financial institutions, there is no regulation on liquidity risk. A prudential standard is in draft. |
| 15. Operational risk | Although the on-site module on operational risk forms the basis for recommendations to financial institutions, there is no regulation on operational risk. |
| 16. Interest rate risk in the banking book | There are no requirements on interest rate risk in the banking book. The on-site module used by the supervision department is derived from that used by APRA and is not really appropriate for the markets in PNG. |
| 17. Internal control and audit | There is a general requirement for a Board to have appropriate controls. However, are no requirements for compliance or internal audit departments, or for corporate responsibilities of directors. In practice all banks have an internal audit department and appropriate controls are imposed by the BPNG through on-site inspections |
| 18. Abuse of financial services | The Proceeds of Crime Act imposes general requirements on banks but there is no detailed guidance and no effective enforcement of the provisions. |
| 19. Supervisory approach | There has been a significant improvement in the understanding by the BPNG of the risks facing the banks but there remains no comprehensive assessment of the risks facing the banking system or any documented risk monitoring strategy. |
| 20. Supervisory techniques | The BPNG undertakes regular on-site inspections and uses manuals that are comprehensive and effective. It has benefitted from association with partners states in developing its practices. There have been delays in implementing the on-site program and in following up on recommendations. |
| 21. Supervisory reporting | Regular returns are required of banks and these are analysed by the BPNG. However, some of the regular returns are not submitted in a timely fashion and some specific returns are not fully understood or analysed by the off-site team. |

| Core Principle | Comments |
|---|---|
| 22. Accounting and disclosure | Banks are required to follow international accounting and auditing standards. However, the BPNG could make better use of the assistance that auditors could give, by holding regular meetings and encouraging them to fulfil their statutory duty to report compliance breaches. |
| 23. Corrective and remedial powers of supervisors | The BPNG has powers to insist on corrective and remedial action. However, most of its sanctions are very severe and are rarely, if ever used. There is no contingency plan for a bank failure. |
| 24. Consolidated supervision | The BPNG has powers to undertake consolidated supervision and collects information on that basis even though there is only one bank with operations abroad for which it is the home supervisor. However, it does not impose standards on a consolidated basis. |
| 25. Home-host relationships | The BPNG has an MOU with the Solomon Islands but similar agreements with Fiji and Australia are still only in draft. It is able to cooperate with other authorities and does so to mutual benefit. |

## G. Recommended Action Plan and Authorities' Response

**Table A1.2 Papua New Guinea: Recommended Action Plan to Improve Compliance with the Basel Core Principles**

| Core Principle | Recommended Action |
|---|---|
| 1.(2) Independence, Accountability & Transparency | • Amend the BFIA to enable the Governor to set license fees;<br>• Strengthen BPNG accountability;<br>• Amend the BFIA to remove the ability of the Minister to object to shareholders or indirect controllers;<br>• Amend the CBA to remove the ability of the Minister to determine the level of BPNG Reserves;<br>• Increase license fees over a reasonable period until they meet total supervisory costs;<br>• Increase the budget and staff numbers for the supervision department ;and<br>• Introduce a comprehensive training needs analysis. |
| 1(4) Legal powers | • Amend the BFIA to provide for enforcement of prudential standards;<br>• Extend the range of administrative sanctions; and<br>• Amend the BFIA to clarify the inspection power. |
| 1(6) Co-operation | • Amend the BFIA to protect confidential information passed to a Minister or department. |
| 3. Licensing criteria | • Include corporate governance and the balance of Board skills in the fit and proper requirements;<br>• Give authorized institutions the responsibility to ensure that all staff are fit and proper persons; and<br>• Amend the licensing manual to include the need to get a statement of no objection from a foreign supervisor. |
| 4. Transfer of significant ownership | • BPNG to seek information on ultimate beneficial owners or $2^{nd}$ and $3^{rd}$ tier shareholders or indirect controllers on a regular basis. |
| 5. Major acquisitions | • Draft and issue a prudential standard on major acquisitions to give BPNG the right of prior consent; |
| 7. Risk management process | • Issue a prudential standard that requires an authorized institution to adopt an appropriate risk management framework; |
| 8. Credit risk | • Draft and issue a prudential standard on credit risk; |
| 9. Problem assets, provisions and reserves | • Amend the prudential standard to add the requirements for the continuous review of the value of collateral; and<br>• Add guidance on detecting deterioration in the borrowers' ability to repay. |
| 10. Large exposure limits | • Introduce a new prudential standard on large exposures. |

| Core Principle | Recommended Action |
| --- | --- |
| 11. Exposures to related parties | • Amend the prudential standard so as to:<br>  • Broaden the definition of related party and deal with conflicts of interest in decision making;<br>  • Repeal the provisions on related party lending in PS 3/2000; and<br>  • Ensure that all related party lending is properly reported. |
| 12. Country risk | • Include a section on country risk within the credit risk prudential standard ; |
| 13. Market risk | • Draft and issue a prudential standard on market risk; |
| 14.Liquidity risk | • Draft and issue a prudential standard on liquidity risk; and<br>• Complete the establishment of a repo facility so that banks may have guaranteed access to liquidity using government bills as collateral, should the need arise. |
| 15. Operational risk | • Draft and issue a prudential standard on operational risk. |
| 16. Interest rate risk in the banking book | • Include a section on interest rate risk in the banking book in the recommended market risk prudential standard. |
| 17. Internal control and audit | • Include, in the recommended prudential standard on a risk management framework, requirements for an Audit Committee, obligations to adopt IFRS, further reporting requirements on fitness and properness, a requirement for internal audit and rules on role segregation. |
| 18. Abuse of financial services | • Seek amendments to the Proceeds of Crime Act to:<br>  • Criminalize terrorist financing;<br>  • Give the BPNG the responsibility for monitoring compliance with FIU guidelines;<br>  • Impose an obligation on the BPNG to report suspicious transactions;<br>  • Require an authorized institutions to follow FIU instructions after submitting an STR; and<br>  • Modify the protection given to those who have submitted STR, to allow criminal proceedings for a bank which, after making a report, fails to abide by FIU instructions or colludes with the money launderer.<br>• BPNG to draft and issue a prudential standard that requires authorized institutions to comply with the FIU guidelines;<br>• BPNG to draft an internal policy and procedure on AML compliance;<br>• BPNG to agree MOU with FIU<br>• FIU issue amended guidelines that fill the gaps described in this assessment;<br>• FIU to consider regulations under Section 178 to impose CDD requirements. |

| Core Principle | Recommended Action |
|---|---|
| 19. Supervisory approach | • BPNG to strengthen its supervisory tools by:<br>  • Conducting a full risk assessment;<br>  • Developing a risk assessment training program;<br>  • Seeking assistance in developing stress-testing detecting industry trends and risks on a forward-looking perspective;<br>  • Developing information systems and consolidated databases; and<br>  • Seek assistance in developing a full risk-based approach to supervision;<br>• BPNG to provide guidance to the authorized institutions as to the matters that should be reported under Section 35 BFIA.<br>• BPNG to meet other regulatory authorities regularly |
| 20. Supervisory techniques | • Issue examination reports in one month;<br>• Use the additional sanctions to ensure that action plans timetables are agreed quickly and met;<br>• Review internal paper handling and other procedures for monitoring follow up action; and<br>• Hold meetings with the external auditors on a regular basis. |
| 21. Supervisory reporting | • Gather information via the quarterly financial returns from holding companies, as well as significant branches operating outside PNG;<br>• Enhance the quality and timeliness of quarterly returns; and<br>• Arrange training in market and interest rate risk sensitivity analysis. |
| 22. Accounting and disclosure | • Engage in discussions with the CPAPNG to establish an effective enforcement program for accounting and auditing standards;<br>• Inform the CPAPNG of the requirement in 7/2003 and enquire as to why there have been no reports;<br>• Arrange as a matter of practice to meet auditors of each authorized financial institution following each on-site inspection so as to compare findings; and<br>• Amend prudential statement 7/2003, so as to provide guidance on the content of the annual report. |
| 23. Corrective and remedial powers | • Seek amendment of BFIA to enhance availability of sanctions<br>• Further develop guidelines for the application of corrective and remedial actions; and<br>• Draw up and test regularly a contingency plan for dealing with the failure of an authorized institution. |

| Core Principle | Recommended Action |
|---|---|
| 24. Consolidated supervision | • Develop a methodology for assessing the strengths of consolidated group;<br>• Amend on-site manual, so as to instruct examiners to consider the treatment of data in the foreign operation; and<br>• Assess the adequacy of the information flows between branches / subsidiaries and head office. |
| 25. Home host relationships | • Complete the MOUs with Fiji and Australia;<br>• Discuss with its counterparts to the MOUs what information should be exchanged routinely and on an as required basis;<br>• Seek the opinion of foreign supervisors as to the fitness and properness of the officers appointed to the BPNG operations from overseas;<br>• Consider an MOU with the Central Bank of Malaysia;<br>• Seek legal advice to confirm that there is no impediment to a foreign supervisor conducting an on-site visit and inform counterpart authorities of the BPNG's willingness to permit such inspections. |

## H. Authorities' Response to the Assessment

93. **The authorities have indicated that they accept the majority of the recommendations but have concerns about those affecting independence and terrorist financing.** The authorities have provided the mission with a comprehensive response to the recommendations and this is included at Table 2 of this Annex. Virtually all of the recommendations have been accepted and the authorities have indicated the priority they propose to attach to the different actions. The authorities have not accepted the recommendation that license fees be increased to meet the cost of supervision on the grounds that this would raise the cost of borrowing and other banking services. The power of the Minister to reject applications from significant shareholdings is also considered important by the BPNG, since it regards government support as important when rejecting applications. The authorities consider that the Proceeds of Crime Act is sufficiently flexible to cover terrorist financing and that the current arrangements for disclosing information on banks' performance and financial strength are adequate. In other respect, however, the authorities have accepted the report's recommendations.

## Annex II. Papua New Guinea: Banking Sector Peer and Statistical Benchmark[8]

### Banking sector size/depth

**Figure 1. Papua New Guinea: Domestic Bank Deposits as a percentage of GDP**

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| Papua New Guinea | 25.3 | 27.6 | 34.9 | 41.2 | 39.8 |
| *Selected Peers* | | | | | |
| Australia | 73.6 | 74.5 | 80.0 | 96.9 | 101.6 |
| China | 70.0 | 70.2 | 77.1 | 76.4 | 75.0 |
| Indonesia | 40.1 | 38.8 | 36.8 | 37.0 | 34.0 |
| Korea, Rep. | 64.0 | 62.9 | 62.5 | 58.4 | 64.4 |
| Malaysia | 117.7 | 113.6 | 115.8 | 116.4 | 112.4 |
| Philippines | 49.2 | 46.9 | 50.2 | 46.9 | n.a. |
| Thailand | 104.8 | 101.4 | 98.7 | 92.8 | 94.1 |

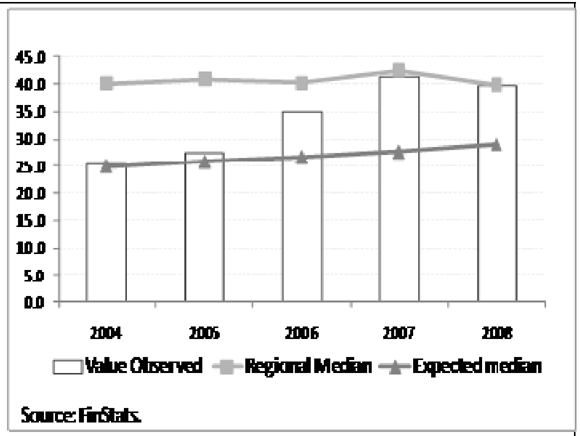
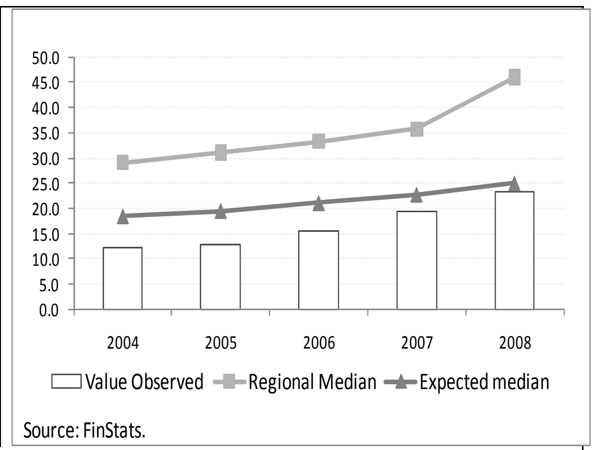



**Figure 2. Papua New Guinea: Credit to the Private Sector / GDP**

(In percent)

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| Papua New Guinea | 12.4 | 12.7 | 15.6 | 19.5 | 23.4 |
| *Selected Peers* | | | | | |
| Australia | 102.0 | 107.5 | 113.3 | 122.9 | 127.1 |
| China | 120.0 | 114.3 | 113.0 | 111.0 | 108.3 |
| Indonesia | 24.7 | 25.5 | 23.9 | 25.2 | 26.3 |
| Korea, Rep. | 83.8 | 86.0 | 93.8 | 98.3 | 107.6 |
| Malaysia | 111.6 | 110.6 | 107.5 | 105.5 | 100.7 |
| Philippines | 29.6 | 25.9 | 25.1 | 23.8 | - |
| Thailand | 101.7 | 100.6 | 95.6 | 92.4 | 93.5 |



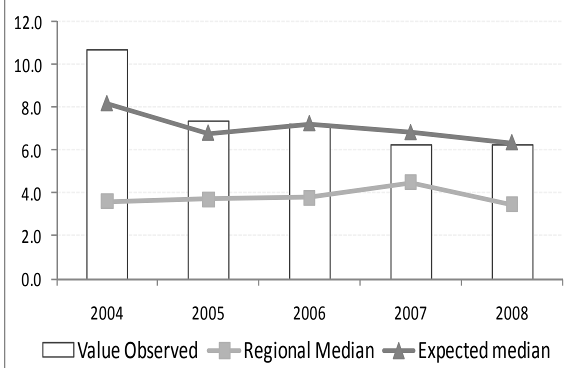

[8] A statistical benchmark methodology has been developed to take into account Papua New Guinea's structural characteristics and produce country-specific benchmarks (the Expected Median showed in the charts). See Box 1 in the Technical Note on the Banking Sector for further details. The statistical benchmark methodology is described in Beck, T., E. Feyen, A. Ize and F. Moiszeswicz (2008). "Benchmarking financial development," World Bank Research Working Paper 4638.

**Banking sector profitability**

## Figure 3. Papua New Guinea: Net Interest Margin

(In percent)

| Net Interest Margin, % | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| Papua New Guinea | 10.7 | 7.3 | 7.2 | 6.2 | 6.2 |
| *Selected Peers* | | | | | |
| Australia | 2.4 | 4.3 | 2.4 | 2.3 | 2.0 |
| China | 3.3 | 3.0 | 2.3 | 2.6 | 3.4 |
| Indonesia | 6.3 | 5.6 | 5.9 | 6.4 | 5.6 |
| Korea, Rep. | 3.7 | 3.1 | 2.8 | 2.8 | 1.7 |
| Malaysia | 3.5 | 3.3 | 3.1 | 3.1 | 3.0 |
| Philippines | 5.8 | 4.3 | 3.7 | 4.5 | 2.5 |
| Thailand | 2.8 | 3.1 | 3.8 | 3.7 | 3.5 |

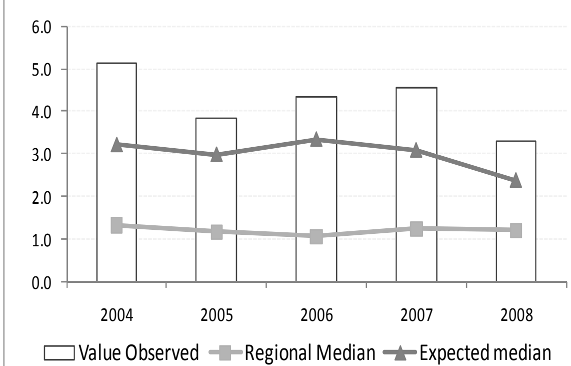



Source: FinStats.

## Figure 4. Papua New Guinea: Return on Average Assets

(In percent)

| ROAA, % | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| Papua New Guinea | 5.1 | 3.8 | 4.4 | 4.6 | 3.3 |
| *Selected Peers* | | | | | |
| Australia | 0.9 | 2.3 | 1.3 | 1.2 | 0.9 |
| China | 0.8 | 0.7 | 0.6 | 0.9 | 1.2 |
| Indonesia | 2.6 | 1.5 | 1.6 | 1.8 | 1.5 |
| Korea, Rep. | 1.0 | 1.2 | 1.0 | 1.1 | 0.4 |
| Malaysia | 1.4 | 1.2 | 1.1 | 1.2 | 1.2 |
| Philippines | 1.6 | 1.0 | 1.1 | 1.3 | 0.6 |
| Thailand | 1.3 | 1.3 | 0.8 | 0.2 | 1.0 |



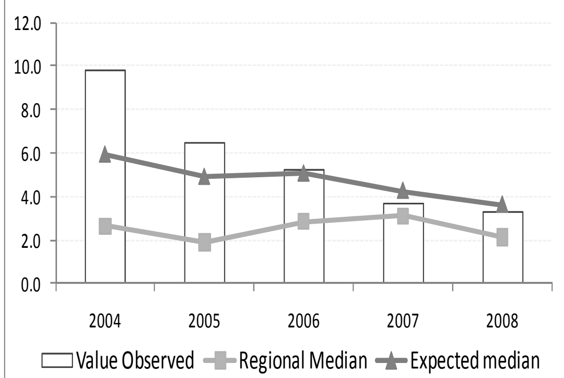

Source: FinStats.

## Banking sector efficiency

### Figure 5. Papua New Guinea: Overhead-Costs-to-Assets

(In percent)

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| Papua New Guinea | 9.8 | 6.5 | 5.2 | 3.7 | 3.3 |
| *Selected Peers* | | | | | |
| Australia | 2.9 | 3.0 | 1.5 | 1.4 | 1.2 |
| China | 1.7 | 1.8 | 1.2 | 1.1 | 1.5 |
| Indonesia | 3.4 | 3.5 | 3.3 | 3.7 | 3.2 |
| Korea, Rep. | 2.0 | 1.8 | 1.7 | 1.7 | 0.9 |
| Malaysia | 1.5 | 1.4 | 1.5 | 1.5 | 1.4 |
| Philippines | 5.4 | 3.7 | 3.4 | 3.7 | 1.8 |
| Thailand | 1.9 | 1.9 | 2.4 | 2.6 | 2.1 |

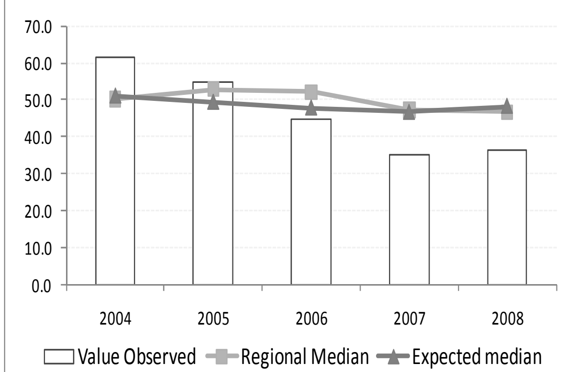



Source: FinStats.

### Figure 6. Cost-to-Income Ratio

(In percent)

| | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| Papua New Guinea | 61.4 | 54.8 | 44.7 | 35.3 | 36.5 |
| *Selected Peers* | | | | | |
| Australia | 66.0 | 48.2 | 46.1 | 46.8 | 45.4 |
| China | 49.4 | 47.4 | 44.1 | 37.1 | 37.7 |
| Indonesia | 47.3 | 56.6 | 52.2 | 52.5 | 51.1 |
| Korea, Rep. | 45.0 | 50.5 | 49.3 | 47.2 | 47.8 |
| Malaysia | 38.5 | 38.1 | 41.3 | 41.8 | 41.4 |
| Philippines | 67.0 | 65.1 | 62.0 | 63.9 | 66.0 |
| Thailand | 51.0 | 50.9 | 54.3 | 58.4 | 51.4 |




Source: FinStats.

## Table A2.1. Papua New Guinea: Financial System Structure

| *(in millions of Kina unless otherwise indicated)* | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| **Numbers** | | | | | | | |
| Commercial Banks | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Finance Companies | 7 | 8 | 8 | 8 | 8 | 8 | 8 |
| Savings and Loans Soceities | 21 | 21 | 21 | 21 | 21 | 21 | 22 |
| Microfinance Insitutions | 5 | 2 | 2 | 2 | 2 | 2 | 2 |
| Insurance Companies - Life | 5 | 5 | 4 | 4 | 4 | 4 | 5 |
| Insurance Companies - Non Life | 12 | 12 | 12 | 12 | 13 | 14 | 14 |
| Development Banks | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Superannuation Funds | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| **Assets** | | | | | | | |
| Commercial Banks | 4,347 | 5,676 | 8,064 | 10,670 | 12,561 | 15,512 | 18,328 |
| Finance Companies | 259 | 186 | 217 | 262 | 311 | 662 | 865 |
| Savings and Loans Soceities | 236 | 335 | 397 | 640 | 731 | 730 | 757 |
| Microfinance Insitutions | - | 16 | 31 | 37 | 37 | 102 | 113 |
| Insurance Companies - Life | - | 111 | 233 | 134 | 169 | 172 | 356 |
| Insurance Companies - Non Life | - | 648 | 713 | 907 | 1,086 | 1,195 | - |
| Merchant Banks | 119 | 18 | 163 | 212 | 232 | 278 | - |
| Development Banks | 66 | 47 | 49 | 65 | 69 | 86 | - |
| Superannuation Funds | - | 2,391 | 2,815 | 4,018 | 4,714 | 5,074 | 6,011 |
| Total | 5,027 | 9,428 | 12,682 | 16,945 | 19,910 | 23,811 | 26,428 |
| **Proportion of Total Financial Sector Assets** | | | | | | | |
| Commercial Banks | - | 60% | 64% | 63% | 63% | 65% | 69% |
| Finance Companies | - | 2% | 2% | 2% | 2% | 3% | 3% |
| Savings and Loans Soceities | - | 4% | 3% | 4% | 4% | 3% | 3% |
| Microfinance Insitutions | - | 0% | 0% | 0% | 0% | 0% | 0% |
| Insurance Companies - Life | - | 1% | 2% | 1% | 1% | 1% | 1% |
| Insurance Companies - Non Life | - | - | - | - | - | - | - |
| Merchant Banks | - | 0% | 1% | 1% | 1% | 1% | 0% |
| Development Banks | - | 0% | 0% | 0% | 0% | 0% | 0% |
| Superannuation Funds | - | 25% | 22% | 24% | 24% | 21% | 23% |
| **Memorandum Item** | | | | | | | |
| GDP | 12,652 | 15,195 | 16,897 | 18,798 | 21,626 | 21,784 | - |
| Financial sector assets to GDP | - | 63% | 75% | 90% | 92% | 109% | - |
| Stock Exchange | - | - | - | - | - | - | - |
| Market Capitalisation | - | - | 23000 | 35500 | 29400 | 50100 | - |
| No. of Listed Entities | - | - | 15 | 15 | 19 | 20 | - |
| Turnover | - | - | - | - | - | - | - |
| Turnover as a percentage of market capitalisation | - | - | 0.10% | 0.08% | 0.35% | 0.11% | - |
| Market Cap to GDP | - | - | 136% | 189% | 136% | 230% | - |

Source: BPNG, Insurance Commissioner's Office, Staff Analysis.

Note: Figures on Microfinance are for one of the two entities. Arrangements are still being made for the other MFI to provide reports. Companies that are in liquidation are not included. Also, the asset figure for nonlife insurers in 2009 is estimated based recognizing that not all companies had accurately reported at the time of the mission.

## Table A2.2. Papua New Guinea: Financial Soundness Indicators for the Banking Sector

| | Dec-10 | Sept-10 | Jun-10 | Mar-10 | Dec-09 | Dec-08 | Dec-07 |
|---|---|---|---|---|---|---|---|
| **Capital Adequacy** | | | | | | | |
| Regulatory capital (percent of RWA) | 28.3 | 27.5 | 23.8 | 27.6 | 28.6 | 24.9 | 30.2 |
| Tier 1 capital (percent of RWA) | 21.1 | 18.2 | 16.5 | 21.4 | 21.1 | 18.4 | 21.3 |
| of which hybrid securities | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Capital (percent of assets) | 13.2 | 13.0 | 11.7 | 12.5 | 12.7 | 12.6 | 11.3 |
| **Asset Composition** | | | | | | | |
| Corporate lending (percent of total loans) | 63.8 | 70.1 | 70.4 | 77.6 | 75.5 | 70.9 | 70.6 |
| Consumer loans (percent of total loans) | 30.4 | 25.0 | 23.9 | 19.1 | 20.2 | 22.3 | 16.3 |
| Large exposures (>10% of capital, as percent of Tier 1 capital) | 140.3 | 131.5 | 139.7 | 93.4 | 114.8 | 138.0 | 151.5 |
| Government securities (percent of total assets) | 41.3 | 43.2 | 39.4 | 42.5 | 44.2 | 41.4 | 40.7 |
| **Asset Quality** | | | | | | | |
| NPLs (percent of capital) | 5.0 | 5.3 | 6.9 | 6.1 | 5.6 | 4.4 | 5.3 |
| NPLs (percent of total loans) | 1.7 | 1.8 | 2.1 | 2.0 | 2.0 | 1.5 | 2.0 |
| NPLs (percent of total assets) | 0.7 | 0.7 | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 |
| Foreclosed assets (percent of total assets) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Provisions (percent of total loans) | 2.9 | 3.0 | 2.8 | 3.0 | 2.6 | 2.0 | 2.3 |
| Provisions (percent of NPLs) | 173.6 | 168.3 | 132.4 | 147.5 | 129.6 | 133.7 | 112.3 |
| Annualized loan growth | 31.6 | 29.1 | 32.0 | 32.3 | 16.1 | 45.2 | 32.8 |
| Annualized deposit growth | 15.1 | 17.9 | 18.2 | 19.7 | 22.2 | 14.6 | 34.4 |
| **Earnings and profitability** | | | | | | | |
| ROAA | 4.0 | 10.1 | 7.5 | 4.9 | 4.1 | 5.0 | 5.4 |
| ROAE | 31.2 | 81.0 | 65.1 | 39.9 | 32.9 | 41.7 | 49.3 |
| Net interest margin (percent of average earning assets) | 7.5 | 14.2 | 10.1 | 7.5 | 7.3 | 7.4 | 7.0 |
| Gross income (percent of average assets) | 10.4 | 21.6 | 15.6 | 10.9 | 9.9 | 11.2 | 11.5 |
| Net interest income (percent of gross income) | 57.9 | 53.7 | 51.1 | 54.2 | 58.1 | 50.0 | 45.9 |
| Non interest income (percent of gross income) | 42.1 | 46.3 | 48.9 | 45.8 | 41.9 | 50.0 | 54.1 |
| Non interest expense (percent of gross income) | 44.3 | 33.6 | 31.7 | 33.9 | 36.4 | 34.6 | 31.4 |
| Non interest expense (percent of average assets) | 4.6 | 7.3 | 4.9 | 3.7 | 3.6 | 3.9 | 3.6 |
| Salaries and benefits (percent of non interest expenses) | 34.4 | 29.8 | 30.9 | 28.1 | 32.8 | 32.1 | 34.6 |
| **Liquidity** | | | | | | | |
| Loans (percent of deposits) | 49.9 | 48.8 | 48.7 | 48.6 | 43.6 | 45.9 | 36.2 |
| Liquid assets (percent of total assets) | 15.3 | 13.6 | 15.6 | 14.9 | 16.1 | 16.2 | 24.7 |
| Liquid assets (percent of short term liabilities) | 25.5 | 23.1 | 26.7 | 26.4 | 27.1 | 26.2 | 36.8 |
| **Funding** | | | | | | | |
| Total deposits (percent of total assets) | 79.4 | 79.6 | 78.8 | 78.7 | 81.5 | 82.2 | 83.3 |
| Total deposits (percent of total loans) | 200.6 | 204.7 | 205.2 | 205.6 | 229.3 | 217.9 | 276.2 |
| Household deposits (percent of total deposits) | 15.3 | 15.6 | 15.8 | 16.5 | 17.6 | 20.4 | 16.3 |

Source: BPNG and staff estimates.

Note: Adjustments were made to liquid asset ratios to exclude government securities. Regarding the usual calculations relating to foreclosed assets, all ratios are zero.

## ANNEX III. STRESS TEST RESULTS

94. **The PNG stress test design was based on detailed discussions between the FSAP team, the BPNG, and local banking sector stakeholders.** Discussions centered on the current PNG macro-economic context, structure of the financial system, current financial soundness indicators and their outlook.

95. **The implementation of the stress tests relied on a top-down approach using supervisory data.** Tests were performed individually for all four commercial banks operating in PNG and, then, aggregated for the whole system.

96. **A baseline scenario analysis for the income statement and balance sheet was implemented for each bank** (in a top-down approach), taking as a starting point the discussions above. Income statement data were annualized from reported year-to-date information. All calculations were performed at a quarterly frequency.

97. **Single-factor shocks were applied to the initial baseline scenario analysis and implemented through their estimated effect on the income statement and the balance sheet.** The single-factor calculations covered the impacts of the following financial risks: credit risk, interest rate risk, sectoral concentration risk, liquidity risk and largest exposures. Each stress scenario produced an estimate of net income that, assuming constant earnings retention levels, was added to the existing capital base. Capital ratios (in terms of CAR) were then calculated based on new capital levels.

98. **Net gains or losses incurred as a result of the single-factor shocks were expressed as a one-time and immediate charge to capital.** In tests for credit risk (including sectoral concentration and largest exposure), the charges consisted of increases in provisions, assuming no recovery. In tests for interest rate and liquidity shocks, charges consisted of net gains or losses generated by interest-bearing assets and liabilities.

99. **As regards to presentation, the impact is shown at the aggregate level.** The distribution of the individual banks (and their market shares) among several "buckets" in terms of CAR (and for liquidity risk, in terms of Liquid Ratio) is shown to indicate the dispersion of the result across the financial institutions in the system. Stress tests with respect to credit risk, loan concentration, largest exposure, interest rate risk are presented in terms of their effect on banks' CAR. The liquidity stress test is presented in terms of its effect on bank's liquid ratio.

**Main results**

100. **The banking system faces little credit risk.** For the credit risk stress test, a uniform increase in NPLs was assumed to be provisioned wholly and charged to capital. Under this assumption, a doubling, tripling or quintupling of NPLs would have little effect on CAR given very low levels of NPLs (less than 2 percent of total loans) and high levels of capital.

In order to push CAR levels below the recommended 12 percent, NPLs should grow to 18 percent of total loans. Therefore, more than a risk, this can be viewed upon as a limit of the system. However, since NPLs usually lag behind strong credit growth, future growth in NPLs cannot be ruled out.

101. **Loan concentration in the commercial and financial sector could potentially pose a risk to the system.** Stress tests were implemented on each of the sectors which are part of the breakdown of loans provided by the banks. A percent of loans to a particular sector was assumed to become nonperforming. The biggest impact of loan deterioration was found in the commercial and financial sector. A 33 percent deterioration in loan performance would lower CAR to below recommended levels for one bank. A 50 percent deterioration would make one bank insolvent. A 100 percent deterioration in this sector's loans would render three banks insolvent and compromise 98.7 percent of banking system assets. Credit deterioration in other sectors would have little effect on commercial banks' CAR.

102. **Risks from borrower concentration are limited.** A list of unnamed largest exposures was obtained from the regulator and loan positions were stressed against capital. No single large exposure becoming a total loss would present a risk to the system. Even if loans to the three largest borrowers of each bank do not perform, only one bank would see its CAR dropping below 12 percent.

103. **Interest rate risks are also limited.** Net interest income was recalculated for different maturity buckets to assess the impact of a parallel move in the yield curve on capital levels. A 50 percent increase or decrease produced negligible impact on CAR given the current structure of assets and liabilities.

104. **A rapid decline in short-term deposits might pose a potential risk to the system**. Liquidity ratios were recalculated excluding illiquid government securities from the numerator and also excluding term deposits from the denominator. This resulted in substantially lower liquidity ratios given the high share of government securities. Under these new calculations one bank was found to be already with a liquidity ratio below 25 percent. The new liquidity positions were stress-tested for a rapid decline in short-term deposits. Should short-term deposits decline by 10 percent, another bank would fall under the government's recommended 25 percent liquid ratio level. A third bank would follow suit should short-term deposits decrease by 15 percent.

**Main recommendations**

105. **Liquidity supervision would benefit from a revised definition of liquid assets.** High liquidity ratios are explained by the inclusion of large holdings of government securities in the numerator, given current PNG classifications. Since there is no secondary market for these securities or central bank discount window, there is no certainty that these assets can be converted to cash with speed and without significant loss, as required by the

guideline. Thus, these securities should be removed from the numerator. All liquidity ratios would decline under this change.

106. **Liquidity management at banks would benefit from the opening of a discount window at the Central Bank.** In the medium term, the development of a repo or secondary market for government securities would typically ensure the provision of liquidity for banks under short term-deposit stress.

107. **BPNG would benefit from TA to centralize data management systems.** Data management processes need to be updated, as expertise might have been lost from previous assistance. A centralized database would help in managing financial data from different sources. Stress testing exercises would benefit, with adding new dimensions to the data collection and reporting processes.

108. **Financial statement reporting still needs further standardization, particularly at foreign banks which report following their headquarters' reporting calendars.** Other issues in data reporting include:

- All reports should include currency of reporting.
- All reports should include unit of measure (units, thousands, millions).
- All reports should include period of report in the title.
- If data is year-to-date-data, this should be clearly specified in the report title.