



ANGOLA

SELECTED ISSUES

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CONTENTS

FISCAL RISKS	4
A. Introduction	4
B. Macroeconomic Risks	5
C. Specific Risks	11
D. Concluding Remarks	16
BOX	
1. Domestic Payments Arrears	12
FIGURES	
1. Public Debt Sustainability Analysis, Stress Tests	8
2. Evolution of Predictive Densities of Gross Nominal Public Debt	9
TABLES	
1. Main Economic Indicators, 2008-15	6
2. Scenarios: Impact of Oil Price Shocks on Oil Revenues	9
3. Fiscal Aggregates and Macroeconomic Indicators, 2008-14	10
4. Addressing PFM-Related Fiscal Risks	13
5. Public Banks' Financial Soundness Indicators, 2008-14	15
References	18

NON-OIL TAX EXPENDITURES	19
A. Introduction	19
B. Methodology	20
C. Defining Tax Benchmarks and Identifying Tax Expenditures	22
D. Concluding Remarks	29
TABLES	
1. Revenue from the Main Non-Oil Taxes (millions of Kz)	22
2. Revenue from the Main Non-Oil Taxes (percent of GDP)	23
3. Tax Expenditures Under the Industrial Tax (Law No. 19/14)	24
References	31
BANK BENCHMARKING	32
A. Introduction	32
B. Overview of the Angolan Banking System	32
C. Methodology and Data	36
D. Aggregate Level Analysis	37
E. Individual Bank Level Analysis	39
F. Banking Resolution and Crisis Prevention Framework	40
G. Concluding Remarks	40
BOXES	
1. Oil Price Shocks and the Banking System	34
2. The Impact of an Exchange Rate Depreciation on the Banking System	35
TABLES	
1. Banks' Assets and Deposits and Short-Term Funding in 2013	33
2. Selected Comparator Countries	36
ANNEXES	
I. Financial Soundness Indicators	42
II. Aggregate Level Analysis	43
III. Individual Bank Level Analysis	44
References	45

MONETARY POLICY TRANSMISSION	46
A. Key Features of Angola’s Monetary Policy Framework	46
B. Methodology	48
C. Data	51
D. Empirical Results	52
E. Concluding Remarks	56
FIGURES	
1. Interest Rates	47
2. Recursive SVAR Impulse Responses	57
TABLES	
1. Interest Rates and CPI, Descriptive Statistics, January 2005–May 2015	51
2. SVAR Variables, Descriptive Statistics, January 2003–June 2015	52
3. Long-Run Regression Results for Step 1 (Overnight IR)	53
4. Long-Run Regression Results for Step 2 (Deposit Rate)	53
5. Long-Run Regression Results for Step 2 (Lending Rate)	54
6. Regression Results for Step 1 (Dynamics)	55
7. Regression Results for Step 2 (Dynamics)	55
References	59

FISCAL RISKS¹

Angola faces fiscal risks coming from multiple sources, such as: volatility in oil prices and production; macroeconomic shocks; weak macroeconomic forecasting; weaknesses in public fiscal management; energy subsidies; potential delays of oil revenue transfers from SONANGOL to the Treasury; and contingent liabilities from state-owned banks and enterprises.

Addressing these risks requires action in various fronts, including: more transparent fiscal reporting; improved forecasting of fiscal aggregates and other macroeconomic variables; developing a fiscal stabilization fund with more flexible deposit and withdrawal rules; strengthened public expenditure controls; enhanced public investment management; more timely oil revenue transfers from SONANGOL to the Treasury; adoption of an automatic adjustment mechanism for energy prices; and more transparent and timely financial information on state-owned banks and enterprises.

The rest of this chapter is organized as follows: Section A defines fiscal risks and examines the benefits of improved fiscal risk management; Section B assesses macroeconomic fiscal risks in Angola; Section C analyzes the country's main specific fiscal risks; and Section D offers some concluding remarks.

A. Introduction

1. Managing fiscal risks is a central aspect of fiscal policy, particularly for resource-rich countries subject to revenue volatility. Fiscal risks—defined as the possibility of deviations of fiscal outcomes from what was expected at the time of the budget or other fiscal forecast—may stem from a variety of sources: shocks to macroeconomic variables such as exchange rates and interest rates; fiscal implications of natural disasters; and contingent liabilities, including bailouts of banks, state-owned enterprises, pension funds, and local governments, as well as explicit and implicit guarantees.² Furthermore, lack of accuracy and transparency of the fiscal accounts can be a source of fiscal risk, as it might compromise a correct assessment of a country's fiscal stance.³

2. Fiscal risks have been receiving greater attention by policymakers. A trend for greater disclosure of fiscal information has been observed, for example, in the form of statements of fiscal risks or other documents supporting government budgets in several countries (e.g., Australia, Brazil, Indonesia, Kenya, Philippines, New Zealand, and Malaysia). Such statements have clear benefits: (i) an appropriate identification of the main fiscal risks is a necessary step toward managing them;

¹ This chapter was prepared by Randa Sab (AFR).

² For more details on the issue of fiscal risks, see Cebotari and others (2009); Everaert and others (2009); and Mauro (2015).

³ Fiscal Transparency, Accountability, and Risk, IMF (2012).

(ii) international credit rating agencies, financial market participants, and the public welcome improved fiscal transparency and the disclosure of fiscal risks; and (iii) a transparent discussion of fiscal risks and mitigating measures contribute to reducing policy uncertainty and increasing confidence on the conduct of fiscal policy.

3. Against this background, Angola’s 2015 budget documentation includes some discussion on risks to budget execution.⁴ The budget documentation focuses mainly on risks emerging from oil prices and production, energy subsidies, and fiscal incentives. It also provides the instruments available for managing contingencies, including the oil Funds (see below).

4. Additional information on the main fiscal risks—with their quantification and stress tests and scenarios—and more details on how to manage them would further strengthen Angola’s budget documentation. These risks are related mainly to: (i) volatility in oil prices and, to a lesser extent, oil production; (ii) macroeconomic shocks, such as real GDP growth or exchange rate shocks; (iii) macroeconomic forecasting; (iv) weaknesses in public fiscal management systems; (v) energy sector subsidies and pricing; (vi) potential delays of oil revenue transfers from the state-owned oil company SONANGOL to the Treasury; and (vii) potential contingent liabilities from state-owned banks and enterprises.

B. Macroeconomic Risks

Oil revenue volatility

5. The Angolan economy is highly vulnerable to oil price shocks. During 2011-13, the oil sector in Angola represented, on average, about 45 percent of GDP, oil exports were about 95 percent of total exports, and oil revenue made up about 80 percent of total fiscal revenue. In the last decade, Angola experienced two oil price shocks—2008-09 and the ongoing 2014-15.

6. The oil price shock of 2008-09 had an immediate adverse impact on the Angolan economy. The price of the country’s oil basket fell to US\$60.8 per bbl in 2009, from US\$93.9 per bbl in 2008, leading to very large declines in fiscal revenue and exports (Table 1). Non-oil GDP growth decelerated to 8 percent in 2009, from 15 percent in 2008, with manufacturing and commerce being affected the most. Inflation increased, the external current account moved into deficit, and international reserves dropped considerably.

7. Similarly, the oil price shock of 2014-15 is adversely impacting the economy. Angola’s oil basket is projected to average US\$53 per bbl in 2015, from slightly over US\$100 per bbl in 2014, leading to large declines in fiscal revenue and exports. Non-oil GDP growth is expected to decelerate to 2 percent in 2015, as the industrial, construction and services sectors are adjusting to cuts in private consumption and public investment amid a more limited availability of foreign

⁴ The 2015 budget document includes a section on “Risks on Budget Implementation” on pp. 52-63.

exchange. Inflation is projected to reach 14 percent by end-2015, exceeding the National Bank of Angola (BNA)'s 7-9 percent objective. The external current account is expected to move into deficit and international reserves to drop but remain at comfortable levels.

Table 1. Angola: Main Economic Indicators, 2008-15

	2008	2009	2010	2011	2012	2013	2014 Prel.	2015 Proj.
Real economy (percent change, except where noted)								
Real gross domestic product	13.8	2.4	3.4	3.9	5.2	6.8	4.8	3.5
Oil sector	12.3	-5.1	-3.0	-5.4	4.5	-1.1	-2.6	6.8
Non-oil sector	15.0	8.1	7.6	9.5	5.5	10.9	8.2	2.1
Consumer prices (end of period)	13.2	14.0	15.3	11.4	9.0	7.7	7.5	13.9
Central government (percent of GDP)								
Total revenue	50.9	34.6	43.5	48.8	45.9	40.5	34.6	27.4
Of which: Oil-related	41.2	24.2	33.0	39.0	37.3	30.3	23.4	14.6
Total expenditure	55.4	41.9	40.0	40.2	41.3	40.8	41.1	30.9
Current expenditure	41.3	29.5	28.6	30.0	29.0	28.7	28.8	24.1
Capital expenditure	14.1	12.4	11.4	10.2	12.3	12.1	12.2	6.8
Overall fiscal balance	-4.5	-7.4	3.4	8.7	4.6	-0.3	-6.4	-3.5
Balance of payments								
Exports of goods, f.o.b. (percent of GDP)	75.9	54.1	61.3	64.6	61.6	55.0	45.8	36.3
Of which: Oil and gas exports (percent of GDP)	74.2	52.7	59.8	63.0	60.4	53.9	44.6	34.7
Current account balance (percent of GDP)	8.5	-10.0	9.1	12.6	12.0	6.7	-1.5	-7.6
Gross international reserves (end of period, millions of U.S. dollars)	17,877	13,679	19,679	27,517	32,156	32,231	27,795	22,275
Gross international reserves (months of next year's imports)	5.1	4.6	5.4	7.2	7.8	7.5	8.6	7.1
Exchange rate								
Official exchange rate (end of period, kwanzas per U.S. dollar)	75.2	89.4	92.6	95.3	95.8	97.6	102.9	...
Memo items								
Oil production (millions of barrels per day)	1,906	1,809	1,758	1,660	1,730	1,716	1,672	1,785
Oil and gas exports (billions of U.S. dollars)	62.5	39.8	49.4	65.6	69.7	66.9	57.6	35.4
Angola oil price (average, U.S. dollars per barrel)	93.9	60.8	76.5	108.7	110.9	107.3	100.7	53.0

Sources: Angolan authorities and IMF staff estimates and projections.

8. The government has established Special Fiscal Institutions (SFIs) for oil revenue management.⁵ They include the Oil Price Differential Account (FDPP) and the Strategic Financial Oil Reserve for Infrastructure (REFP). Both the FDPP and REFP are managed by the BNA on behalf of the Treasury. The FDPP is expected to serve as a fiscal buffer for the government and is funded by budgetary transfers whenever there is a positive difference between actual and budgeted oil prices—taking into account the actual quantity of oil produced versus budgeted. Established by the

⁵ Pedras (2014) and World Bank (2015).

2011 budget law, funding for the REFP is equivalent to the sale of 50,000 barrels a day of crude.⁶ In addition, a Sovereign Wealth Fund (FSDEA) was established in 2012 with an initial US\$5 billion endowment, and future annual inflows (equivalent to 50,000 barrels per day) are set by regulation.^{7 8}

9. However, a well-designed fiscal stabilization fund and medium-term fiscal framework (MTFF) focusing on spending rules are still missing. An MTFF focusing on spending rules and a well-designed fiscal stabilization fund with more flexible deposit and withdrawal rules would contribute to smoothing oil revenue volatility and help reduce the pro-cyclicality of spending.⁹ While oil revenues are deposited at the FDPP and REFP accounts, they do not contain clear rules specifying the circumstances under which the resources from these accounts can be used by the government. Currently, only under strict conditions, these funds can be withdrawn and with authorization from the President of the Republic. In addition, the introduction of spending rules would help limit the current tendency for pro-cyclical spending, thereby safeguarding medium-term fiscal sustainability.

Macroeconomic shocks

10. Angola's baseline debt path is vulnerable to various shocks, including on real GDP growth, exchange rate, and oil price (Figure 1).^{10 11 12 13} For example, a sharp decline in international oil prices can trigger an economic slowdown in Angola as the government would cut public spending to offset lower oil related fiscal revenue. Under a real GDP growth shock scenario, the debt path would thus increase. Given Angola's high dependence on oil, an oil price shock representing a 50 percent drop in the projected price of the Angolan oil basket in 2016 was also considered. Under this scenario, debt ratios would jump in 2016 and gradually come down over time although remaining above the baseline path.

⁶ Funding was previously equivalent to the sale of 100,000 barrels a day. For details, see Ministry of Finance (2015).

⁷ The key objectives of the FSDEA are capital preservation, return maximization, and promotion of social and economic development in Angola. For details, see <http://www.fundosoberano.ao/about-fsdea/>.

⁸ By end-2014, FSDEA total assets amounted to US\$4.88 billion.

⁹ The Fund provided technical assistance to Angola on Fiscal Responsibility Law and Fiscal Rules in July 2014 and on methodologies for designing fiscal rules to manage oil revenues and strengthen the MTFF from February to April 2015.

¹⁰ The real exchange rate shock assumed for Angola is 30 percent.

¹¹ The interest rate increases by 200 basis points under the interest rate shock rather than by the maximum real interest rate over the last 10 years to exclude the outlier resulting from the 2008-09 global crisis, which distorts the impact of the shock on public debt.

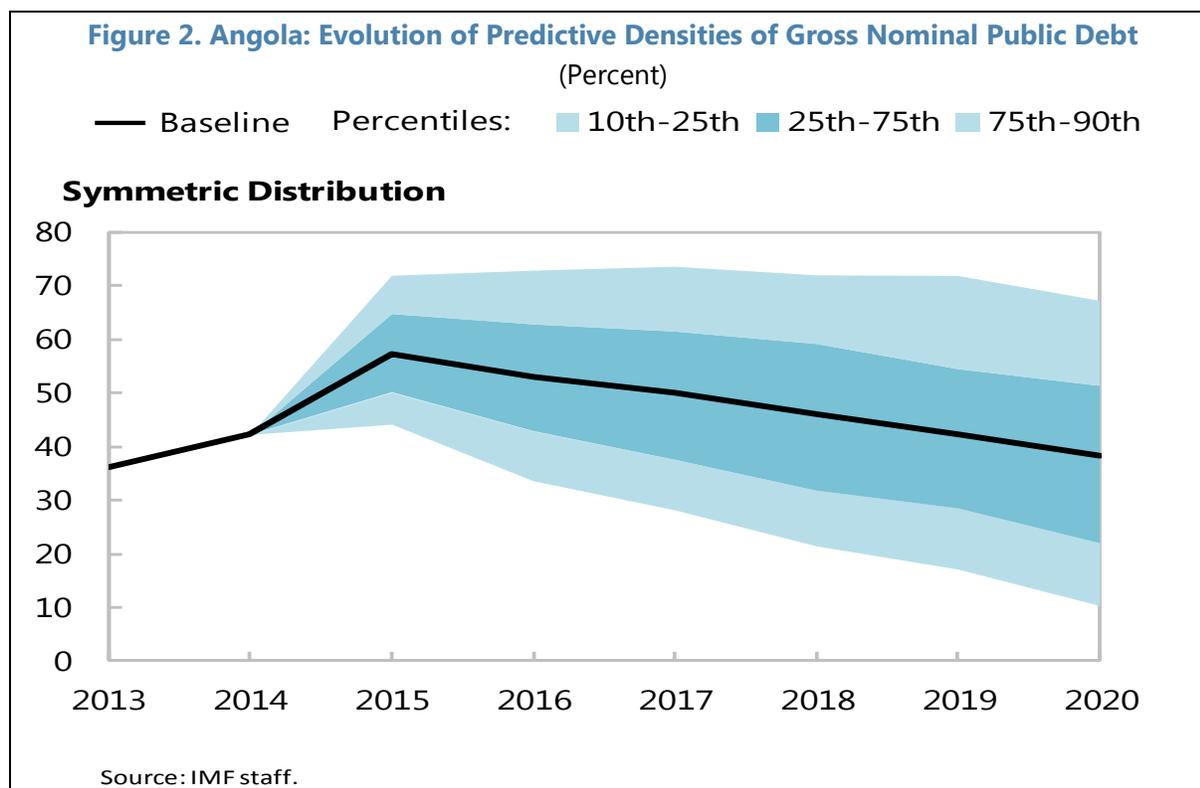
¹² The real GDP growth is reduced by one-half standard deviation (rather than 1 standard deviation) for 2 consecutive years to tailor this shock better to the new reality of the Angolan economy, which has been growing for more than a decade and has seen the share of the less volatile non-oil (services dominated) sector increase.

¹³ The oil price shock shows only the direct impact of a decline in oil price on revenues in 2016. The price under this scenario is US\$26.5 per barrel.

Figure 1. Angola: Public Debt Sustainability Analysis, Stress Tests



11. A more explicit consideration of uncertainty does not alter the above assessment (Figure 2). To this end, a fan chart is used to provide a probabilistic view of the uncertainty around the baseline path for the public debt-to-GDP ratio. The increasing width of the prediction ranges reflects rising uncertainty over time. While the baseline projection is shown as the most likely realization, shading around it indicates increasingly less likely outcomes.



12. Fiscal revenues are highly sensitive to oil prices shocks. To illustrate, everything else being equal, a change in oil prices can have a significant impact on oil revenues, and thus public finances in Angola. For example, when the Angolan's oil price is US\$40 per bbl, oil revenues amount to only 11 percent of GDP; with oil prices at US\$60, oil revenues total 16½ percent of GDP (Table 2).

Table 2. Angola: Scenarios: Impact of Oil Price Shocks on Oil Revenues

Angolan oil price in US\$ per bbl	40	60	80	100
Oil revenue in percent of GDP	11	16.5	22	27.5

Sources: Angolan authorities; and IMF staff calculations.

Macroeconomic forecasting

13. Fiscal risks can also emerge from weak macroeconomic forecasting. Basing the budget on overly optimistic assumptions—so that actual government revenues fall short of budgeted forecasts—is a common phenomenon in countries with relatively weak forecasting capacity. However, in the case of Angola, government revenues have been consistently underestimated by budget forecasts during 2008-14 (Table 3).¹⁴ This mostly results from an underestimation of oil revenues. At the same time, government expenditures have followed a very similar pattern, with actual expenditures exceeding budgeted ones in most years since 2008. While this reflects to a large extent the pro-cyclicality of Angola's fiscal policy, the sign (although not the magnitude) of the actual overall budget balance has mostly been in line with the budget during the period under consideration. It is also noteworthy that over-optimistic assumptions on real GDP growth have been the rule since 2008.

	2008	2009	2010	2011	2012	2013	2014
Percentage Change Between Actual and Budget (in percent)							
Revenue (billions of kwanzas)	70.1	28.1	44.1	40.3	34.4	6.1	-7.2
Oil tax revenue (billions of kwanzas)	78.1	41.3	71.3	49.1	60.3	10.6	-10.4
Non-oil tax revenue (billions of kwanzas)	23.6	5.2	-16.5	5.1	-28.0	-13.1	-8.0
Expenditure (billions of kwanzas)	55.8	5.8	22.4	26.2	29.9	-2.6	-2.8
Current expenditure (billions of kwanzas)	103.4	14.0	25.0	28.2	23.8	3.0	-0.2
Subsidies (billions of kwanzas)	172.7	52.3	171.4	99.9	43.3	23.1	24.6
Capital expenditure (billions of kwanzas)	-7.4	-9.6	16.3	20.7	47.0	-13.8	-8.6
Difference Between Actual and Budget							
Overall fiscal balance (billions of kwanzas)	72.5	315.8	454.7	555.8	245.0	410.4	-189.1
Non-oil fiscal balance (billions of kwanzas)	-1,068.7	-107.6	-586.2	-701.4	-1,297.7	62.4	154.2
Real Gross Domestic Product (percent change)	-2.4	-3.8	-5.2	-3.7	-6.0	-0.3	-4.0
Gross Domestic Product (billions of kwanzas)	2,201.9	1,017.4	838.5	1,387.9	1,258.3	33.8	-109.4
Angola oil price (average, U.S. dollars per barrel)	38.9	23.8	18.5	40.7	33.9	11.3	2.7
Consumer prices (percent, end of period)	3.2	1.5	2.3	-0.6	-1.0	-1.3	...

Sources: Angolan authorities; and IMF staff calculations.

¹⁴ A recent exception has been 2014, when actual revenues were lower than budgeted revenues by a small margin due to the start of the decline in oil prices.

C. Specific Risks

Weaknesses in public fiscal management (PFM) and expenditure controls

14. Over the past few years, a number of PFM reforms were implemented in Angola. They include: (i) the development of an Integrated Financial Management System (SIGFE) under the Ministry of Finance with capabilities in line with those in other developing countries; (ii) the design of an Integrated Public Investment Management System (SIPIP) under the Ministry of Planning and Territorial Development (MPTD);¹⁵ and (iii) the formulation of a National Development Plan (PND) underpinning project design and prioritization. Extensive technical assistance was provided by the IMF in some of these areas in the past two years.¹⁶

15. Further measures were recently introduced to address weaknesses in PFM and expenditure controls. In addition to clearing the outstanding stock of verified arrears accumulated from 1992-2013, two critical measures, developed with IMF technical assistance, were put in place with the approval of the 2014 budget (Box 1). Those included: a clear definition of arrears consistent with international best practice—expenditures that have been incurred but not paid within 90 days; and a new control procedure requiring the confirmation by the Finance Ministry of all contracts above US\$1.5 million. In May 2015, a working group was formed with the aim to effectively integrate the databases SIGFE and SIPIP to improve public investment management. In addition, the authorities have finalized and published a manual for project evaluation; issued and started implementing a decree that allows for the monitoring of the physical execution of projects; and are evaluating the public investment projects in the pipeline to assess which projects are not complying with legislation.

16. Fiscal risks also arise due to deficiencies in public investment management (PIM). First, while the National Directorate for Public Investment (NDPI) at the MPTD coordinates the inclusion of projects in the Public Investment Program (PIP), the actual formulation and implementation of the PIP is dispersed across different levels of administration, including line ministries and subnational governments. Such an unnecessarily complex process reduces the ability of the MPTD to effectively oversee the implementation of the PIP. Second, the project management cycle—namely, design, appraisal, selection, budgeting, implementation and monitoring—is not adequately followed in many public investment projects. Third, project appraisal capacity remains limited, complicating assessments of potential economic impact of prospective projects. Fourth, complementary projects are often not integrated within the same investment program. Fifth, SIPIP is not yet integrated with other information systems, such as the SIGFE. In addition, future developments envisaged under the SIPIP could duplicate other systems being developed by other agencies.

¹⁵ It would be more efficient to have both databases integrated into one system.

¹⁶ In addition, the World Bank's first development policy financing (US\$450 million) for Angola—approved on June 30, 2015—envisages actions on introducing fiscal rules; improving public investment management efficiency; and developing a well-targeted cash transfer scheme to the poor.

17. Going forward, PFM-related fiscal risks can only be satisfactorily addressed through further strengthening of expenditure controls and PIM. Table 4 summarizes the key measures.

Box 1. Angola: Domestic Payments Arrears¹

Government expenditure arrears—delays in government payments to suppliers or creditors—can be a major source of fiscal risks. Unrealistic revenue forecasts and the absence of adequate public expenditure controls are among the leading causes of arrears. The presence of arrears is often an indication of an ill-functioning Treasury—in itself a major source of fiscal risks.

Arrears can be interpreted as a form of forced deficit financing, leading to an underestimation of government spending and of the size of fiscal imbalances. Consequently, the de facto public sector borrowing requirements—as well as the sources of credit expansion in the economy—are also understated. Arrears can also dampen the impact of expansionary fiscal policy on the economy: the resulting increase in aggregate demand may be partially offset by the suppliers' reactions: passing higher prices for their goods and services to consumers and the government.

The negative impact of arrears accumulation is not limited to the public sector. In fact, government arrears can spread to the private sector through different mechanisms. First, they may erode the private sector's confidence in the soundness of the fiscal stance. In particular, private consumers and investors may anticipate tax increases, inflationary deficit financing, and further deterioration of the government finances in the medium-to-long term. Arrears may also have a knock-on effect on the rest of the economy, affecting private suppliers' ability to honor their obligations and potentially compromising the health of the financial sector in the process, creating a vicious cycle.

Over the past two decades, Angola had at least six episodes of domestic payments arrears accumulation. The first major episode (in the order of US\$7 billion) took place during 1992-2002, at the height of the civil conflict. In 2010, about US\$9 billion of arrears related to investment projects initiated in 2008-09 were identified. A third episode occurred during 2010-11 (US\$4 billion). A fourth was related to the execution of the 2012 budget with arrears estimated at US\$2.3 billion, and a fifth episode, in 2013, with arrears estimated at US\$0.7 billion. More recently, in 2014, arrears were estimated at around US\$1.5 billion. The reasons behind these episodes were manifold: (i) the absence of a formal PFM system during the period of civil war; (ii) the crisis in 2008-09 and the unexpected decline in international oil prices by end-2014 that provoked a strong reduction in government revenues that was not accompanied by a proportional reduction in spending; (iii) poor capacity in the line ministries to prepare and manage investment projects, many of which resulted in cost overruns; (iv) weaknesses of the PFM system in general, and in particular inadequate internal controls to track execution of multiyear contracts; (v) lack of fiscal discipline in some line ministries that do not follow budget regulations and procedures; (vi) poor enforcement mechanisms to identify and sanction irregularities.²

¹ Adapted from Ke-Young Chu and Richard Hemming, eds. *Public Expenditure Handbook* (Washington: International Monetary Fund, 1991).

² IMF (2014a and 2014b).

Table 4. Angola: Addressing PFM-Related Fiscal Risks

Table 4. Angola: Addressing PFM-Related Fiscal Risks	
Expenditure control measures and other PFM reforms	Public investment management reforms
<ul style="list-style-type: none"> • Strengthening budget execution capacity • Issuing monthly expenditure arrears reports to the line ministries as an early-warning exercise • Improving the reliability of expenditure documentation by linking supplier invoices to the tax administration recording system • Improving invoice registration by allowing suppliers to register their invoices directly in SIGFE • Simplifying the SIGFE and strengthening the Finance Ministry's capacity to control budget execution • Reinforcing the internal audit capacity and ensuring the independence of the Inspector General Office (IGO) for conducting ex ante and ex post inspections • Centralizing all payments in the Treasury Department, introducing a calendar of payments in the SIGFE, automating payments by the Treasury consistent with the calendar and the availability of financial resources 	<ul style="list-style-type: none"> • Further improving the legal framework on public investment, particularly of PPPs • Enforcing compliance with existing laws and regulations across the PIM process • Submitting to sector ministries and provincial governments complete and consistent information on the projects. Despite inadequate documentation, all projects submitted have received a "confirmation of eligibility" for their inclusion in the investment portfolio • Enhancing technical capacity at the Ministry of Planning and Territorial Development (MPTD), ministries and provinces to prepare, appraise, select, and monitor projects as well as to assess their capacity to provide value for money • Conducting ex-ante and ex-post evaluations • Prioritizing projects within a medium-term expenditure framework (MTEF) and thus securing its funding • Making pre-feasibility studies a requirement which, for large but not viable projects, would avoid unnecessary cost and time preparing a detailed feasibility study • Introducing more competition in procurement, and ensuring all projects are executed with a formal contract • Avoiding modifications to the projects' budgets, reducing cost overruns and delays in the implementation of the projects
Source: IMF technical assistance reports.	

Energy Subsidies

18. With IMF technical assistance, the government has embarked on a gradual fuel subsidy reform.¹⁷ In 2013, fuel subsidies amounted to 5.9 percent of GDP and are projected to decline to 2 percent of GDP in 2015. Lower international oil prices together with three increases in domestic fuel prices since September 2014 led to the elimination of subsidies on asphalt, light and heavy fuel oil, and gasoline. Diesel, LPG, and kerosene are still subsidized, although at much lower

¹⁷ Fabrizio and others (2014).

levels than in the recent past. Mitigating measures will be developed to compensate the poor, particularly for the phasing out of LPG and kerosene.

19. Despite the reduction in subsidies, fiscal risks could arise given that domestic price adjustments of fuel products are ad hoc. Subsidies are highly susceptible to changes in international oil prices and the exchange rate in Angola. Since about 80 percent of refined fuel products are imported, higher international prices and/or a more depreciated kwanza vis-à-vis the U.S. dollar could increase again the fiscal cost of subsidies, if the government does not adjust domestic fuel prices.

Oil revenue transfers from SONANGOL to the Treasury

20. Possible delays in the reconciliation of oil revenue flows between SONANGOL and the Treasury are a source of fiscal risk. Such delays may prevent an accurate assessment of the fiscal stance and complicate fiscal policy management. A high-level working group—comprising the Ministry of Finance, Ministry of Petroleum, National Bank of Angola, and SONANGOL—was established in March 2011 to reconcile, on a monthly basis, oil revenue transfers to the Treasury. Early reports produced by this working group indicated that the difference between the oil revenue accrued to the government and the amounts effectively deposited in the Treasury single account was largely due to SONANGOL’s retention of taxable oil receipts and profit oil to: (i) quasi-fiscal operations (QFOs); and (ii) service external credit lines through deposits in escrow accounts.

21. In an effort to further improve transparency related to these financial flows, the annual budget includes the quasi-fiscal operations (QFOs) of SONANGOL since 2013.¹⁸ The annual budget also reflects the authorities’ commitment to include all investment projects underway and SONANGOL’s expenses as a concessionaire. In this role, SONANGOL receives profit oil from the oil operators, sells it in the international market on behalf of the Government of Angola, and transfers the proceeds to the Treasury.

22. Timely and complete transfers of oil revenue from SONANGOL to the Treasury have become even more critical in view of the sharp fiscal deterioration in 2015. Giving priority to preparing the reconciliation reports and transferring oil tax revenue on a timely basis would be crucial.¹⁹ In addition, it would be important to publish these reports in a timely manner to increase transparency.

¹⁸ According to International Budget Partnership (2015), however, Angola’s budget transparency index is 26 out of 100, suggesting the availability of only minimal budget information to the public.

¹⁹ IMF (2014a).

Potential Contingent Liabilities from State-Owned Banks and Enterprises

23. Financial indicators of state-owned banks have been deteriorating and thus could be another source of fiscal risks. Based on Bankscope data in 2013, three banks, including one of the top five banks, are owned by the public sector: the BPC (4th largest bank in terms of assets; BDA, 9th largest bank, and the BCI, the 14th largest bank). According to Bankscope data and banks' financial reports, financial indicators in these banks show relatively high non-performing loans (NPLs) in percent of total loans, declining or negative return on average assets (ROA), and low capital adequacy ratios (Table 5). Despite scarcity of data, the analysis suggests significant problems in state-owned banks, which are or could become bigger liabilities for the central government if these banks are in need of further recapitalization.²⁰

Table 5. Angola: Public Banks' Financial Soundness Indicators, 2008-14

	(Percent)						
	2008	2009	2010	2011	2012	2013	2014
Banco de Poupança e Crédito (BPC)							
Asset quality							
Nonperforming loans/total loans	4.5	4.9	9.3	7.5	7.8	11.3	3.6
Provisions/gross loans	1.6	7.2	12.1	11.3	11.3	8.3	3.6
Capital							
Total capital ratio	...	...	...	...	...	11.0	10.1
Operations							
Return on average assets	2.5	2.7	3.0	1.9	0.9	0.8	0.8
Return on average equity	41.0	32.6	30.1	18.0	9.4	8.1	9.2
Liquidity							
Net loans/customer & short-term funding	56.1	80.8	80.8	67.2	75.9	75.0	88.0
Banco de Desenvolvimento de Angola (BDA)							
Asset quality							
Nonperforming loans/total loans	5.7	...	...	...	...	...	...
Provisions/gross loans	8.4	25.1	19.9	23.6	23.0	14.2	...
Capital							
Total capital ratio	35.9	15.6	15.6	19.2	6.8	8.1	...
Operations							
Return on average assets	1.4	1.5	1.7	0.3	-3.9	1.4	...
Return on average equity	11.4	12.1	12.6	3.2	-72.7	51.8	...
Liquidity							
Net loans/customer & short-term funding	...	...	...	...	...	...	...
Banco de Comércio e Indústria (BCI)							
Asset quality							
Nonperforming loans/total loans	...	...	...	36.4	25.5	36.4	...
Provisions/gross loans	13.7	11.2	10.4	10.2	9.6	8.9	...
Capital							
Total capital ratio	...	...	...	18.7	6.9	7.3	...
Operations							
Return on average assets	1.9	2.5	2.1	0.3	-4.3	-3.0	...
Return on average equity	14.7	19.3	13.3	1.7	-61.4	-36.7	...
Liquidity							
Net loans/customer & short-term funding	22.3	37.5	50.8	51.3	65.6	74.0	...

Sources: Bankscope and various Banks' Financial Reports.

²⁰ These banks have been recapitalized recently according to their banks' financial reports.

24. The government has recently made some progress in improving the resolution framework but more needs to be done. The authorities took appropriate steps to improve governance, supervision, and the financial resolution mechanism. Among others, the recently approved Financial Institutions Law stipulated the creation of a Deposit Guarantee Fund, the Bank Resolution Fund, and an inter-institutional National Council of Financial Stability.²¹ However, more needs to be done on crisis prevention measures, such as the Emergency Liquidity Facilities and contingency planning.²²

25. In addition, several state-owned enterprises had losses in 2014. The authorities are considering restructuring or privatizing loss-making state-owned enterprises to help increase their productivity and reduce fiscal costs to the Treasury. In addition, as SONANGOL has turned into an industrial and financial conglomerate, it has become significantly a financing source for activities outside its comparative advantage, such as real estate construction and property holdings. It also holds strategic positions in domestic and foreign banks, particularly in Angola and Portugal. As a result, SONANGOL's participation in the non-oil economy could amplify adverse shocks originating in the oil sector, with potentially large negative second-round effects.

D. Concluding Remarks

26. Angola faces several fiscal risks originating from multiple sources but these risks are not sufficiently captured and disclosed in the annual budget. Some fiscal risks stem from potential macroeconomic shocks, such as GDP growth or exchange rate shocks. Others relate to still weak public fiscal management systems; energy sector subsidies; potential delays in oil revenue transfers from SONANGOL to the Treasury; and potential contingent liabilities from state-owned banks and enterprises.

27. Enhanced the monitoring and management of fiscal risks would bring considerable benefits to Angola. They include: (i) a more reliable assessment of the country's fiscal stance; (ii) greater ability to smooth government spending—particularly priority expenditure—in the presence of exogenous shocks; (iii) improved quality and timeliness of information on the fiscal accounts for both the central government and other public sector entities; and (iv) greater confidence by the private sector in the public accounts and in the overall conduct of fiscal policy.

28. Several steps should be considered to improve fiscal risk reporting and management in Angola. First, the main fiscal risks should be reported in a transparent manner, for example, in a detailed fiscal risk statement in the annual budget, with a quantification of such risks and stress tests. Second, forecasting of oil tax revenues and other fiscal and macroeconomic variables needs to be strengthened through the development of a proper MTFF, improved forecasting capabilities, and

²¹ The BNA is preparing supporting regulations to define their details.

²² The World Bank plans to provide technical assistance in this area.

more realistic macroeconomic assumptions. Third, developing a fiscal stabilization fund with clear and flexible deposit and withdrawal rules would contribute to smoothing oil revenue volatility in case fiscal risks materialize. Fourth, expenditure controls could be strengthened through the introduction of stricter mechanisms to monitor project execution; issuance of monthly expenditure arrears reports by the Ministry of Finance to line ministries as an early warning exercise; and proper staff training to implement these measures effectively. Fifth, PIM should be improved through staff training for project preparation and appraisal; pre-feasibility studies for large projects; improved information flows for the project preparation and execution phases; greater competition in public procurement; and the adoption of ex-ante and ex-post evaluations. Sixth, oil revenue transfers from SONANGOL to the Treasury should take place on a timely manner to help conduct fiscal policy more efficiently. Seventh, energy subsidies should be gradually phased out and an automatic price adjustment mechanism should be instituted. Lastly, timely compilation and disclosure of information on state-owned banks and enterprises would be warranted.

References

- Cebotari, Aliona, Jeffrey Davis, Lusine Lusinyan, Amine Mati, Paolo Mauro, Murray Petrie, and Ricardo Velloso, 2009, "Fiscal Risks: Sources, Disclosure, and Management," (Washington, International Monetary Fund).
- Chu, Ke-Young and Richard Hemming (editors), 1991, "Public Expenditure Handbook," (Washington: International Monetary Fund).
- Everaert, Greetje, Manal Fouad, Edouard Martin, and Ricardo Velloso, 2009, "Disclosing Fiscal Risks in the Post-Crisis World," IMF Staff Position Note, SPN/09/18, (Washington: International Monetary Fund)
- Fabrizio, Stefania, Kamil Dybczak, Valentina Flamini, and Javier Kapsoli, 2014, "Technical Assistance Report—Angola—Fuel Price Subsidy Reform: The Way Forward."
- Guilherme Pedras, 2014, "Asset and Liability Management Framework," Selected Issues Paper, IMF Country Report No. 14/275, (Washington: International Monetary Fund).
- International Budget Partnership (2015), Open Budget Survey 2015.
<http://internationalbudget.org/opening-budgets/open-budget-initiative/open-budget-survey/>
- IMF, 2012, "Fiscal Transparency, Accountability, and Risk," (Washington: International Monetary Fund).
- IMF, 2014a, "Second Post-Program Monitoring; Press Release; and Statement by the Executive Director for Angola," IMF Country Report No. 14/81, March 2014, (Washington: International Monetary Fund).
- IMF, 2014b, "2014 Article IV Consultation—Staff Report; Press Release; and Statement by the Executive Director for Angola," IMF Country Report No. 14/274, September 2014, (Washington: International Monetary Fund).
- Mauro, Paulo, Hervé Joly, Ari Aisen, Emre Alper, Francois Boutin-Dufresne, Jemma Dridi, Nikoloz Gigineishvili, Tom Josephs, Clara Mira, Vimal Thakoor, Alun Thomas, and Fan Yang, 2015, "Monitoring and Managing Fiscal Risks in the East African Community," (Washington: International Monetary Fund).
- Ministry of Finance (2015), "Angola: Assessment of Oil Revenue Behavior Report," First Quarter 2015 (May).
- World Bank, 2005, "Angola: Public Expenditure Management and Financial Accountability Review," Report No. 29036-AO, (Washington, D.C.).
- World Bank, 2015, "Fiscal Management Development Policy Financing," (Washington: The World Bank).

NON-OIL TAX EXPENDITURES¹

This chapter provides a roadmap for properly measuring in Angola non-oil tax expenditures, understood as the potential revenues that the government forgoes as a result of tax reductions and exemptions. It also highlights the importance of discussing in the annual budget the costs and benefits for the country of tax expenditures in the same manner as public expenditures are discussed. This information is critical for policymakers to take decisions on whether to maintain or eliminate tax benefits and can prevent the tax system from deteriorating over time under the accumulation of tax benefits that may have ceased to address the country's objectives.

The rest of this chapter is organized as follows: Section A highlights the importance of tax expenditure budgets. Section B discusses the methodological foundations for identifying and measuring tax expenditures. Section C proposes "benchmark" taxes for each of the main Angolan levies and identifies the tax expenditures relating to them. The final section presents conclusions and recommendations.

A. Introduction²

1. Tax expenditures are potential revenues that the government forgoes as a result of tax reductions and exemptions in deviation from the "normal" tax structure.³ Tax expenditures may take different forms, such as reductions in the tax base (exclusion, exemption, deduction, etc.), deductions from tax liability, tax rate reductions, and tax deferrals (for example, accelerated depreciation). As tax expenditures result from a deviation from the "normal" structure of the tax, estimating them thus requires that we define the "normal" structure, i.e., benchmark taxes that will serve as the basis for comparison.

2. Tax expenditures are not subject to the same scrutiny as government spending, unless the annual budget is accompanied by a tax expenditure budget (TEB). Traditionally, the document submitting the annual budget for consideration by the legislature contains an estimate of proposed revenues and expenditures. Tax expenditures—and the additional revenues that would be collected if they did not exist—remain hidden. Notwithstanding the fact that the same policy objectives targeted by tax expenditures could be achieved through subsidies or other outlays, the relevance of budgetary expenditures is debated every year, while the appropriateness of tax expenditures is discussed only at the time the legal rules giving rise to them are approved. It is highly likely that tax expenditures created in the past (very often in the distant past) will be irrelevant for current policy purposes.

¹ This chapter was prepared by Ricardo Varsano (FAD expert).

² This section and the next use material contained in CIAT (2011), IMF (2007), OECD (2010), and Villela, Lemgruber and Jorrat (2010).

³ This definition, similar to that contained in IMF (2007), is one of the various definitions of tax expenditures found in the literature.

3. In the absence of yearly scrutiny, the tendency is to perpetuate tax benefits that are no longer necessary, while at the same time introducing new ones as instruments for current policies. The resulting increase in the value of tax expenditures over time undermines the efficiency of the tax system and creates long-term budgetary problems. As circumstances change over time, the effectiveness of tax expenditures is reduced. Likewise, the growing cost in terms of lost revenues obliges the government to neglect new priorities and/or to raise tax rates and/or to incur greater deficits and debt. This reduces the effectiveness of government policy and can also undermine the efficiency, the fairness and the simplicity of the tax system.

4. The purpose of TEBs is to mitigate these problems by making tax expenditures just as visible as budgetary outlays. They contain information on the amount, the purpose and the use of tax benefits, thus allowing for scrutiny and facilitating control. They increase the transparency of government policies, for they allow policymakers and legislators to obtain a full overview of the costs of each activity or project. Estimating tax expenditures is also essential for conducting cost benefit analyses and for assessing the potential revenue that eliminating the tax benefit would produce. Identifying tax expenditures also allows the tax administration to pinpoint gaps or loopholes in the legislation that could be used for aggressive tax planning (with its attendant harm to the Treasury) or for evasion.

5. Although there is no standard format for TEBs, the steps necessary to put one together are the same in all cases. These involve: (a) choosing the methodology for measurement; (b) defining the benchmark tax structure; (c) identifying tax expenditures; (d) estimating the value of tax expenditures, i.e. the amount of potential tax revenue that was not collected; and (e) preparing the document listing tax expenditures, which in some countries is an integral part of the annual budget, while in others it is annexed to the budget.

B. Methodology

6. The first step in estimating tax expenditures is to specify the benchmark taxes. By definition, tax expenditures result from the difference between the treatment actually accorded the taxpayer and the treatment that would result from adopting the benchmark tax. There is no consensus in the tax expenditure literature as to how the benchmark taxes should be specified. However, most countries use either the conceptual approach or the legal approach for defining them.⁴

7. In the conceptual approach, benchmark taxes are ideal taxes that follow the theoretical principles of taxation. For example, the benchmark for the consumption tax would be a tax that is applied at a uniform rate to all goods and services consumed in the country; in the case of individual income tax, the benchmark would be a progressive tax on global income. This

⁴ A few countries, among them Germany, use a third approach, that of the analogous subsidy, which is not considered in this paper.

approach is obviously not applicable to Angola, where there is no tax on global income, but rather separate taxes on different types of income, and where the consumption tax is not a general tax on consumption but rather a tax with a less comprehensive base and with selective rates.

8. In the legal approach, benchmark taxes are those with the general characteristics of taxes defined in the country's laws. The definition of tax expenditures is more restrictive under the legal than under the conceptual approach because, in defining the tax bases, the laws usually determine what is subject to the tax and what is not. With the conceptual approach, exclusions as well as exemptions are considered tax expenditures, while under the legal approach only exemptions constitute tax expenditures. On the other hand, the legal approach is simpler than the conceptual one and may better reflect the country's reality, in contrast to a theoretical ideal. For this reason, the legal approach is the one adopted by the majority of developing countries.

9. Once the benchmark tax structure has been specified and tax expenditures identified, the next methodological issue is how to estimate their values. The literature offers three approaches that differ with respect to the objective, the degree of difficulty in the estimation, and the estimated value of the tax expenditures.

10. The simplest method to use is that of foregone revenue. This method measures the treasury's revenue losses on the assumption that there is no change in the behavior either of taxpayers or the government as a result of the tax benefit granted. This assumption represents the main shortcoming of the method: obviously, a tax incentive is granted with a view to changing taxpayer behavior. For example, a reduction in the tax on a product is very likely to boost demand for that product and, given the household budget constraint, will tend to reduce consumption of other goods. Another shortcoming of this method is that it does not consider the effect of one tax expenditure on all the others. For example, if firms that have set up in a given region enjoy a reduction in the industrial tax and a similar reduction is then created to benefit firms that set up in other regions, it is very likely that future investment in the first region will be less than what it would have been in the absence of the second incentive.

11. The revenue gain method seeks to shed light on a question: how much would revenue rise if the legal provision that created a given tax expenditure was repealed? To answer this question one must consider the possible behavioral reactions of the taxpayer, and this requires a solid database and knowledge of the elasticities in the economy. In addition, one must make assumptions about the behavior of taxpayers and the government, which could have a significant impact on the estimate.

12. The third alternative is the equivalent outlay method. It seeks to estimate how much the government would have to spend through a subsidy or transfer in order to provide the taxpayer with an equivalent benefit, i.e., to leave the taxpayer with the same after-tax income that he or she enjoys through the tax expenditure that is being replaced.

13. Despite its shortcomings, the revenue foregone method is the one used by nearly all countries in the world due to its simplicity. A few countries use the revenue gain method and, according to OECD (2010), only Sweden estimates tax expenditures using the equivalent outlay method.

C. Defining Tax Benchmarks and Identifying Tax Expenditures

Revenue from the main non-oil taxes

14. The share of non-oil tax revenue in total tax revenue is relatively small. The eight taxes shown in Tables 1 and 2 accounted for nearly all non-oil tax receipts in recent years. Nevertheless, despite the high rates of growth in non-oil tax collections in the last two years and the sharp drop in oil tax revenue in 2014, non-oil taxes were 9.3 percent of GDP in 2014, or the equivalent to about 30 percent of total tax receipts.

Table 1. Angola: Revenue from the Main Non-Oil Taxes (millions of Kz)

Tax	2010	2011	2012	2013	2014
Industrial tax	154,007.2	216,350.7	196,148.9	247,235.6	313,240.3
Consumption tax	159,419.6	167,617.9	166,188.2	199,123.8	226,090.3
Percentage collected at customs	68.8	68.9	72.5	65.9	63.8
Import duties	101,746.9	105,940.2	111,325.0	124,412.4	182,041.8
Tax on labor income	74,313.2	88,685.3	117,797.0	144,916.4	177,701.1
Stamp tax	81,544.0	97,727.2	94,885.1	110,825.0	130,240.1
Percentage collected at customs	48.8	44.3	33.4	29.5	29.5
General customs fees	31,487.4	35,784.7	39,786.7	48,723.6	67,481.6
Tax on capital income	7,110.5	7,234.0	851.7	23,331.1	53,135.4
Urban property tax	1,734.1	5,044.0	15,159.7	19,565.8	25,283.8
Total	611,362.9	724,384.0	742,142.5	918,133.6	1,175,214.5

Sources: Angolan authorities; and IMF staff estimates.

15. The tax expenditures dealt with in this chapter are only one of the factors behind the relatively small share of non-oil receipts in the total. There are other factors that are not considered in this chapter. First, there are indications of a high level of tax evasion, and the recently-created General Tax Administration (AGT) is already taking steps to control it. Second, the reduced rates for the consumption tax—2 percent applied to a long list of products and 5 percent on all taxable services with the exception of hotel services—are low. Third, the tax bases, especially for the consumption tax and the industrial tax, are narrow, underscoring the importance and indeed the urgency of a tax reform that would broaden the tax base.

Table 2. Angola: Revenue from the Main Non-Oil Taxes (percent of GDP)

Tax	2010	2011	2012	2013	2014
Industrial tax	2.0	2.2	1.8	2.1	2.5
Consumption tax	2.1	1.7	1.5	1.7	1.8
Import duties	1.3	1.1	1.0	1.0	1.4
Tax on income from work	1.0	0.9	1.1	1.2	1.4
Stamp tax	1.1	1.0	0.9	0.9	1.0
General customs duties	0.4	0.4	0.4	0.4	0.5
Tax on invested capital	0.1	0.1	0.0	0.2	0.4
Urban property tax	0.0	0.1	0.1	0.2	0.2
Total	8.1	7.4	6.8	7.7	9.3

Sources: Angolan authorities; and IMF staff estimates.

Industrial tax

16. The structure of the industrial tax is similar to that of taxes on corporate profits in most countries. Residents are taxed on their worldwide income, and nonresidents on their territorial income. The normal rate, applicable to the great majority of sectors, is 30 percent. There is a "deemed profit" regime in which the tax base is the volume of sales of goods and services, with the rate set at 6.5 percent.⁵

17. Tax expenditures related to the industrial tax take various forms. Table 3 presents a wide-ranging but unlikely to be exhaustive list of such tax expenditures.

⁵ The "deemed profit" regime can be used by commercial and single-person companies if their corporate capital is less than 2 million kwanzas, if their total annual profits are less than 500 million kwanzas, and if they do not keep organized accounts.

Table 3. Angola: Tax Expenditures under the Industrial Tax (Law No. 19/14)	
1. Exemptions	
<ul style="list-style-type: none"> Granted pursuant to the Private Investment Laws of 2011 (Law 20/11) and 2015 (Law 14/15). Foundations, associations and cooperatives with the status of "public utility." Foreign marine and air shipping companies provided there is reciprocity. Granted by the industrial tax code in effect until 2014, and revalidated by the new code: workers' production cooperatives, construction, consumer, farming and livestock cooperatives; companies whose activity is limited to administration of their own property; National Bank of Angola; farming, forestry or livestock activities (for up to 10 years); and agricultural, forestry, livestock or fisheries exports, with annual invoicing of less than 269 UCFs (Fiscal Correction Units). 	
2. Accelerated depreciation	
<ul style="list-style-type: none"> Granted pursuant to the Private Investment Laws of 2011 (Law 20/11) and 2015 (Law 14/15). 	
3. Deductions from net profits	
<ul style="list-style-type: none"> Profits subject to the tax on capital investment income, except those of financial institutions, and the urban property tax. In the case of the former, which is an income tax, the profits should be taxed by the industrial tax and the value of the tax on capital investment income deducted from the tax liability. In the case of the latter, which is a property tax, the profit should be taxed by the industrial tax and the urban property tax deducted as a cost. 	
4. Deductions from the tax base	
<ul style="list-style-type: none"> Profits transferred to a reserve for reinvestment, and reinvested within the three subsequent years. 40 percent of the value of corporate philanthropy/patronage contributions (or 30 percent, if the beneficiaries are workers of the firm and their families) (Law 8/12). 	
5. Reductions in tax liability	
<ul style="list-style-type: none"> Granted pursuant to the Private Investment Laws of 2011 (Law 20/11) and 2015 (Law 14/15). The difference between the liability calculated according to the rules of the normal tax regime and the liability calculated as 6.5 percent of the volume of sales of goods and services for taxpayers of group B without organized accounts. The difference between the liability calculated according to the rules of the normal tax regime and the liability calculated as 2 percent of gross sales of micro-enterprises (Law 30/11). Reduction in the tax liability of small and medium-sized firms, depending on their geographic location as defined by Law 30/11: zone A (50 percent for five years); zone B (35 percent for three years); zone C (20 percent for two years); and zone D (10 percent for one year). 	
6. Reduction in the tax rate	
<ul style="list-style-type: none"> Farming, aquaculture, poultry raising, livestock raising, fishery and forestry operations: rate of 15 percent. Mining activity is subject to income tax, which is defined as "the Industrial Tax that is generically regulated in ordinary legislation" (Law no. 31/11), but the rate is 25 percent. 	
Sources: Angolan authorities; and IMF staff compilation.	

Tax on labor income

18. The tax on work income applies to three groups of taxpayers: workers in a relationship of employment, self-employed workers, and individuals engaged in industrial and commercial activities. Each of these groups is taxed in accordance with rules exclusive to that group. In this chapter, we consider as benchmark the tax defined in Law 18/14, excluding its Chapter II which deals with exemptions, and article 7.2a (deduction of the mandatory social security contribution), as social

allowances paid by the National Social Security Institute are not subject to taxation. As the counterpart, the amount of tax not collected on the income sources mentioned in Chapter II as well as the additional amount of tax that would result from not deducting social security contributions are considered to be tax expenditures.

Tax on capital income

19. The benchmark tax for the tax on capital income has all its characteristics defined in Presidential Legislative Decree no. 2/14, except its Chapter II, which deals with exemptions.

This is a tax imposed on interest, dividends and other distributed profits, royalties and net capital gains and losses as well as on lottery prizes and earnings from gambling. The rates are 5 percent, 10 percent, and 15 percent, depending on the type of income. Tax expenditures are measured as the revenues not collected by virtue of the exemptions mentioned in Chapter II and in the private investment laws of 2011 and 2015, namely:⁶

- Interest on merchants' credit sales.
- Interest on life insurance policy loans made by the insurance company.
- Interest on instruments intended to foster savings, provided the capital does not exceed 500,000 kwanzas per person.
- Interest on home-purchase savings accounts.
- Reduction or exemption from the tax on profits distributed to partners by firms covered by the Private Investment Law for a term that, pursuant to the 2011 law, depended on the location of the project and, under the 2015 law, on the score obtained by the project in question.

Consumption tax

20. The consumption tax, as the name indicates, represents a tax on the final consumer.

However, those liable to pay this tax are producers, importers, providers of taxable services, and those who sell or dispose of goods at public auctions. The tax base consists of all products, except non-processed products of agriculture, livestock, mining, forestry and fisheries activities, and the services contained in a specific list. In addition, exports, raw materials and subsidiary materials incorporated in the production process and capital goods and spare parts are exempt. The taxable value is the production cost for goods produced in Angola, the customs value for imported goods,

⁶ It should not be considered as tax expenditure the foregone revenue due to the exemption granted for profits or dividends distributed to corporations, subject to the industrial tax, which hold no less than 25 percent of the capital of the entity that is distributing the profits. These profits comprise the basis of the industrial tax. Therefore, without the tax on capital income exemption, these profits would be taxed twice.

the price paid for services, and the selling price at auctions. The production cost of goods produced in the country is defined as the cost of raw materials and intermediate inputs, labor, technology and other goods or services necessary for production, excluding the costs of distribution, transportation, insurance or others that are incurred after warehousing. The tax rate is 10 percent for most products, and 5 percent for all taxable services, except for hotel services, where the rate is 10 percent, but there are also rates of 2 percent, 20 percent, and 30 percent applicable to the projects listed in annexes to the consumption tax regulation.⁷

21. The consumption tax is likely borne by the final consumer, as intended, despite the fact that it is not paid directly by consumers. This is due to the fact that, by exempting producers' purchases of inputs and capital goods, it avoids double taxation and, by taxing imports and exempting exports, it allows the producer to receive tax-free the full international market price for sales abroad and requires the consumer to pay the international market price plus the consumption tax (in addition to customs duties) when purchasing an imported product. In this way, it creates conditions that encourage the tax, for which the producer is responsible for paying, to be passed on to the final consumer.

22. The discussion in the previous paragraphs provides a roadmap for the identification of the tax expenditures related to the consumption tax. As this chapter adopts the legal approach, the revenue forgone because of the exclusion from the consumption tax of agricultural, livestock, forestry, fisheries and mining products does not constitute tax expenditure. Similarly, the difference between what would be collected through application of a 10 percent rate instead of 2 percent or 5 percent rate does not constitute tax expenditure. This is because, in contrast to general sales taxes, such as the VAT or the retail sales tax, the consumption tax in Angola is deliberately designed to play a dual role as a general sales tax and specific excise tax. Moreover, the exemptions for exports and goods required for production, although they are legally mandated exemptions, are in fact elements of the tax structure, necessary for avoiding multiple or cascading taxation and to give this levy the nature of a true consumption tax.⁸

23. Nevertheless, there are some tax expenditures relating to the consumption tax, although in terms of foregone revenue they are less important than exclusions and reduced rates. These tax expenditures flow from subjective exemptions granted under international agreements (i.e., diplomatic and consular missions and international organizations) as well as to persons (i.e., former combatants) who are given the right to import goods similar to the ones produced domestically, and to persons who pursue activities using artisanal processes.

⁷ Presidential Legislative Decree 3-A/14.

⁸ In the case of the VAT, as with the Angolan consumption tax, it is necessary to tax imports and exempt exports for it to be a true consumption tax. The VAT credit applicable to inputs replaces the exemption so as to avoid cascading taxation. In the case of the retail sales tax, it is not necessary to tax imports, because they are taxed once they enter the retail trade sector, nor is it necessary to exempt exports, as they are rarely conducted by retailers. On the other hand, it is necessary to exempt purchases that producers make on the retail market.

24. In addition, the discussion above has implications for tax revenue and social policy.⁹

The consumption tax regulation ignores a big slice of the value of consumption in the country. In addition to excluding nearly all domestic production in the primary sector and a good portion of the tertiary sector, it excludes from the tax base a portion of the value of consumption of domestic industrialized products corresponding to producers' profit margins as well as the entire value added by merchants. To this must be added taxation at reduced rates for all taxable services, except those in the hotel industry, and a good share of industrialized food products and of medications and pharmaceutical articles. Using input-output tables for the year 2007 (the latest available), a rough estimate of the additional revenues that could be collected if these items were all taxed at a rate of 10 percent is of the order of 2.7 percent of GDP.¹⁰

25. A portion of the potential revenue forgone can be traced to an inefficient social policy.

As consumption taxes tend to be regressive, Angola and many other countries exclude, exempt, or apply reduced tax rates to certain goods and services that are deemed essential and that represent an important fraction of spending on consumption by the poorest families. In fact, this type of social policy does benefit those families, and it benefits them proportionately more than wealthier families, thereby mitigating the regressive nature of the tax. Nonetheless, this type of social policy is extremely inefficient, for the wealthiest families consume preferentially taxed products and services in much greater quantities and values. Consequently, it is the wealthiest families who appropriate the bulk of the amount that the government forgoes.¹¹ Government action would be more beneficial for the poorest families if the foregone taxes were to be collected and their revenues used in well-targeted programs to combat poverty.

The stamp tax

26. The benchmark for the stamp tax is as defined in Presidential Legislative Decree 3/14 with the exception of its Article 6, which deals with exemptions. Tax expenditures are equal to the tax revenues forgone by virtue of the exemptions under Article 6 and the tax exemptions or reductions contained in other laws, which have their primary impact on revenues from import taxes. The customs tariff schedule does not grant any benefits under the stamp duty and provides for it to be collected on all imports, even those exempt from import duties, at a rate of 1 percent of the customs value. Article 6, however, provides exemptions for: the State, its services, establishments and agencies, except for public enterprises; public welfare and social security institutions,

⁹ There are also implications for competition between imported and domestic goods, which are not taken into consideration here.

¹⁰ This estimate is necessarily rough, because the products and services in the input-output tables do not correspond precisely to the products and services exempt from the tax, and also because the tables are for the year 2007 and the structure of Angolan economy has undergone important changes since then.

¹¹ Data on the consumption of family units obtained from the National Statistics Institute (INE) show this fact clearly, in line with what emerges from similar data for other countries.

associations of public utility and religious institutions, except for their economic activities of a business nature; and various financial and insurance transactions, labor contracts, and exports.

Import duties and general customs fees

27. The benchmarks for customs duties and for general customs fees are defined in the customs tariff schedule with the adjustment noted below. The new customs tariff schedule¹² adopted the 2012 version of the World Customs Organization's Harmonized System Nomenclature (HS 2012), replacing the 2007 version. The customs tariff schedule of Angola added a chapter to those listed in the HS 2012, namely, Chapter 98 on goods imported for special purposes. It contains exceptions to the provisions of the other chapters and, consequently, the tax expenditures relating to import duties, as well as those relating to the consumption tax with respect to imports. Concerning the general customs fees, the customs tariff schedule provides no exemptions, even for the State. Exemptions may, however, exist by force of law or of agreements, conventions or contracts that are binding on the government.

28. Imports under Chapter 98 were responsible for 11.7 percent of the total value of imports in 2014. A small portion of that value corresponds to temporary imports. Exemptions for temporary imports are not tax expenditures. All other exemptions under that chapter are tax expenditures. In that chapter, the column showing import duty rates indicates that the imports are free. Thus, to calculate the tax expenditure corresponding to a good classified in that chapter, there is a need to apply to the import value the rate that is shown for the same good in the chapter where it would be classified, if it were not imported for a special purpose.

29. Tax expenditures relating to import duties and general customs fees are not limited to the exemptions contained in Chapter 98. There are a great number of exemptions specified in legal rules and administrative acts that are not related to the tax system. Circular 131/DPP/SNA/2014, which defines codes of regimes, procedures, treatment and exemption, mentions nearly 50 codes of exemption.

Urban property tax

30. The law on the urban property tax provides few exemptions that are granted to:¹³

- The State, public institutes and associations that enjoy public utility status.
- Foreign governments with respect to buildings intended to house their diplomatic or consular establishments, provided there is reciprocity.
- Religious institutions, for properties devoted exclusively to worship.

¹² Rectification 1/14 of Presidential Legislative Decree 10/13.

¹³ Article 5 of Legislative Act 4044 of October 13, 1970, in the wording given by Law 18/11.

D. Concluding Remarks

31. This chapter has highlighted the importance of tax expenditures budgets as a tool to provide policymakers and legislators with information on the cost of tax benefits in terms of forgone revenues. An understanding of that cost, which remains hidden in Angola throughout the traditional budgetary process, is important for taking decisions on whether to maintain or eliminate those benefits. This can prevent the tax system from deteriorating over time under the accumulation of tax benefits that, while they may have been useful when they were created, have ceased to be important in terms of the country's current objectives. Consequently, tax expenditure budgets allow public funds to be put to more efficient use.

32. The Angolan authorities are thus encouraged to adopt:

- *The legal approach to defining its benchmark taxes.* As the taxes currently in force bear little similarity to the theoretically ideal taxes discussed in the public finance literature, selecting benchmark taxes via the conceptual approach would not produce realistic results.
- *The forgone revenue method for estimating tax expenditures.* Despite its shortcomings, this method is much simpler and requires much less economic information than the other methods, and has therefore been adopted by the great majority of countries.

33. The methodological base will only be useful in practice if it is associated with a database that allows the methodology to be applied so as to obtain the desired estimates. It was not possible, unfortunately, to obtain, at the time of the 2015 Article IV mission, the data that would have allowed an estimation of tax expenditures. Customs data are available, but the AGT officials responsible for extracting and preparing the data were not able to provide reliable data. With respect to domestic taxation, there is no information available that could be used for estimating tax expenditures. There are at least three reasons why not:

- The beneficiaries of tax incentives, who have no tax to pay, tend not to comply with their accessory obligations, such as submitting annual tax returns, and they have not as yet been forced to comply with those obligations.
- The tax return forms are not sufficiently detailed to yield the relevant information.
- The tax returns are submitted across the entire country, many of them in paper format, and the scanty information that could be available is not compiled.

34. In the absence of a proper database to estimate tax expenditures in Angola, this chapter has defined benchmarks for each of the main non-oil taxes and identified the existing tax expenditures in the country. The lists are fairly comprehensive but they are certainly not exhaustive, as many tax expenditures are created in non-tax legislation and administrative acts, agreements, and contracts. Although it has not been possible to assess their importance in terms of

value, there are many exemptions that generate tax expenditures through import duties. There are also significant tax expenditures in the industrial tax. Therefore, it is recommended that:

- Tax expenditures associated with import duties should be not only pinpointed but also analyzed carefully.
- After taking steps to improve the availability of data, the AGT should expand the study of tax expenditures under the industrial tax to include other tax benefits beyond those granted by the National Private Investment Agency (ANIP).
- Tax expenditures under the tax on labor income and the tax on capital income should be scrutinized over the medium term.

35. In the case of the consumption tax, much more important than the tax expenditures associated with it is the revenue forgone due to the narrowness of its tax base and the existence of reduced rates for services, processed foods, and drugs. The revenue forgone estimate by virtue of these two reasons is in the order of 2.7 percent of GDP. Thus, revenues from the consumption tax, which currently amount to 1.8 percent of GDP, could reach 4.5 percent of GDP.

36. The expansion of the tax base that could generate the revenue increase estimated above appears equivalent to replacing the consumption tax with a VAT and product-specific excise taxes, which is already called for in Angola's tax reform plans. Replacement with a modern VAT seems to be a better alternative than attempting to reform again the consumption tax, which is a tax handle that has been largely abandoned around the world. For this reason, it is recommended that:

- Work should start immediately to make careful preparations for implementing a modern VAT and product-specific excise taxes.
- The VAT to be adopted should have a single positive rate and zero rate applicable exclusively to exports.
- The VAT should contain few exemptions (preferably none).
- The specific excise tax should be confined to a limited number of products, preferably tobacco and its derivatives, alcoholic and nonalcoholic beverages, fuels, and vehicles.
- The products included in the excise tax base should also be subject to the VAT.
- The tax base for the specific excise tax should include, in the case of imports, the amount of import duties and general customs fees.
- The tax base for the VAT should include, in the case of imports, the amounts of import duties and general customs fees and, in all cases, the amount of the specific excise tax.

References

- CIAT (2011), Handbook of Best Practices on Tax Expenditure Management: An Iberoamerican Experience (Panama: CIAT).
- IMF (2007), Manual on Fiscal Transparency, revised edition (Washington: International Monetary Fund).
- OECD (2010), Tax Expenditures in OECD Countries (Paris: Organization for Economic Co-operation and Development).
- Villela, Luiz, Andrea Lemgruber, and Michel Jorrat (2010), "Tax Expenditure Budgets: Concepts and Challenges for Implementation" (Washington: Inter-American Development Bank).

BANK BENCHMARKING¹

This chapter analyses the Angolan banks by benchmarking them against banks in comparator countries. The analysis found that the Angolan banks have relatively solid underlying fundamentals on aggregate although their balance sheets have generally deteriorated in recent years. However, at an individual bank level, some banks appear to be vulnerable to shocks due to limited buffers. Therefore, it is important to continue strengthening supervisory capacity and resolution mechanism under a strong institutional framework. Weak banks should be swiftly recapitalized or liquidated if they are determined non-viable. In addition, crisis management and contingency planning arrangements are still missing and should be implemented at an early stage.

The rest of this chapter is organized as follows: Section A provides an introduction; Section B presents an overview of the Angolan banking system; Section C illustrates the methodologies and data for this study; Section D discusses the results of the aggregate-level analysis; Section E presents the results of the individual bank-level analysis; Section F describes Angolan banking resolution and crisis prevention framework; and Section G offers some concluding remarks.

A. Introduction

1. The landscape of the Angolan banking system has substantially changed over the last decade. It has experienced very rapid growth and substantially changed its structure. This led some observers to suggest that bank consolidation was necessary in the near future.² Meanwhile, the country's economic diversification has so far made limited progress despite the government's various efforts. Some observers have pointed the Angolan financial system as one of the major constrictions to economic diversification as banks do not seem to be able to provide the necessary funding to the non-oil sectors to flourish.

B. Overview of the Angolan Banking System

Macroeconomic conditions

2. Macroeconomic conditions surrounding the Angolan banks have improved significantly over the last decade. Angola has achieved major progress on macroeconomic stabilization. Annual inflation has declined from 31 percent at end-2004 to 7.5 percent ten years later. Lending and deposit rates have substantially decreased, with the spread between the two rates falling from over 5,500 basis points to around 1,500 basis points over the same period.

¹ This chapter was prepared by Misa Takebe (AFR).

² Eaglestone Securities (2014).

3. However, economic diversification has so far made limited progress due to constrain in various sectors including the banking sector. The Angolan economy is still highly concentrated in the oil sector, which represents over 40 percent of GDP. There are many factors that inhibit economic diversification. The underdevelopment of the banking sector is clearly one of the major constraints. For example, the 2014-2015 Global Competitiveness Report showed “access to financing” is the most problematic factor for doing business in Angola. Similarly, the World Bank’s Ease of Doing Business Survey in 2015 ranked Angola in the 180th position out of 189 countries in terms of “getting credit.”

Landscape of the Angolan banking system

4. The Angolan financial system is dominated by banks, and its banking system is highly concentrated. At end-2014, there were 17 insurance companies, 5 pension fund management companies, and 3 microcredit institutions. However, their combined size was extremely small, with less than 2 percent of financial assets held by non-bank financial institutions. Meanwhile, the banking sector is highly concentrated, with the top five banks accounting for over 70 percent both in assets and deposits (Table 1). The government owns three banks, including the fourth (*Banco de Poupança e Crédito*, BPC) and the ninth biggest banks (*Banco de Desenvolvimento de Angola*, BDA).

Table 1. Angola: Banks’ Assets and Deposits and Short-Term Funding in 2013

Bank Name	Total Assets			Deposits & Short term funding		
	Billion Kwanza	Share	Share of top 5	Billion Kwanza	Share	Share of top 5
1 Banco Espirito Santo Angola	1,109	17%		945	18%	
2 Banco Angolano de Investimentos	1,040	16%		913	17%	
3 Banco de Fomento Angola	868	13%		763	14%	
4 Banco de Poupança e Crédito	988	15%		802	15%	
5 Banco BIC	751	12%	73%	644	12%	77%
6 Banco Privado Atlantico	357	5%		295	6%	
7 Banco Sol	206	3%		182	3%	
8 Banco Millennium Angola	223	3%		182	3%	
9 Banco de Desenvolvimento de Angola	221	3%		...	...
10 Banco Caixa Geral Totta de Angola	183	3%		132	3%	
11 Standard Bank de Angola	148	2%		136	3%	
12 Banco de Negocios Internacional	184	3%		133	3%	
13 Banco Regional do Keve SARL	98	2%		83	2%	
14 Banco de Comercio e Industria	...	...		...	...
15 Finibanco Angola	55	1%		42	1%	
16 Banco Comercial Angolano SARL	31	0%		24	0%	
17 Banco Angolano de Negócios e Comércio	16	0%		12	0%	
18 Banco Kwanza Investimento	9	0%		1	0%	
19 Banco Comercial do Huambo	4	0%		3	0%	
Total	6,492	100%		5,293	100%	

Sources: Bankscope - Bureau Van Dijk and IMF staff estimates.

5. The Angolan banking system has experienced very rapid growth over the last decade particularly on the deposit side.³ The number of commercial banks increased from 11 in 2005 to 25 in July 2015. Bank deposits increased from 21 percent of GDP in 2005 to 49 percent of GDP in 2013, well exceeding the sub-Saharan African (SSA) countries' average of 30 percent of GDP. On the other hand, bank loans to the private sector rose from 5 percent of GDP in 2005 to 24 percent of GDP in 2013, only reaching the SSA countries' average. The Angolan banks have remained very cautious about lending to the private sector and kept roughly a half of their domestic assets either at the National Bank of Angola (BNA) or in government securities. Lack of corporate transparency and appropriate legal protection together with high credit risk are considered to have been discouraging the Angolan banks from extending loans to the private sector.

6. Despite the economy's heavy dependence on the oil sector, the Angolan banks have diversified portfolios but are still vulnerable to the oil price shocks. Banks have a small direct exposure to the oil sector (only 2 percent of total lending in August 2015) and diversified exposures to the commercial sector (19 percent), the construction sector (13 percent), and households (21 percent). However, their indirect exposure to the oil sector is high with various trickle-down effects (Box 1).

Box 1. Angola: Oil Price Shocks and the Banking System

Despite their small lending exposure to the oil sector, Angolan banks could have a large impact on their balance sheet from the oil price shocks by various trickle-down effects as follows.

- Lower oil prices lead to the government's payment delays or arrears. This causes liquidity problems among government suppliers and creates higher non-performing loans to those companies.
- Lower oil prices forced the government to substantially cut public investment projects, which increases default incidents in loans to the construction sector.
- Spending cuts by the oil companies and the government increases the delinquency in loans to households as a large share of the labor force is employed by the government or the oil sector.
- Lower oil prices tend to increase the government's bond yield reflecting higher financing needs by the government, and makes capital losses on the bank's portfolio. However, given a small secondary market of the government securities, Angolan banks usually hold the government securities till maturity and do not materialize the capital losses. Therefore, the actual losses on banks' balance sheets are likely to be limited.
- Lower oil prices increase depreciation pressure on the kwanza as foreign exchange availability becomes limited. The kwanza depreciation triggers direct and indirect losses on banks as described in details later (Box 2).
- Lower oil prices weaken banks' deposit base because a large amount of deposit comes from the oil sector and the government.

³ The ratios in this paragraph are based on the World Bank's 'FinStats' database.

7. Financial soundness indicators show that the Angolan banks' conditions have been deteriorating recently (Annex 1). The non-performing loan ratio has reached 18 percent in July 2015, approaching a warning level by the conventional methods.⁴ Although a sectoral breakdown of non-performing loans is not available, a substantial cut in government expenditure in 2015 is considered to have hit the construction and commercial sectors and increased non-performing loans in those sectors. The capital adequacy ratio declined to 19 percent in July 2015, from the peak of 22 percent in February 2015, but still stayed well above the regulatory minimum of 10 percent and other conventional thresholds.⁵ However, the capital base could be eroded quickly if banks'

Box 2. Angola: The Impact of an Exchange Rate Depreciation on the Banking System

This box discusses the impact of a 50 percent depreciation of the kwanza against the U.S. dollar from the level at the end of June 2015. Kwanza depreciation has a large impact on the banking system mainly through two different channels:

- 1- In the first round, banks are affected from a direct exposure through their net open positions in foreign exchange. Angolan banks generally have a long position in U.S. dollars. Kwanza depreciation thus brings in foreign exchange gains to most banks and increases their regulatory capital (the numerator of the capital adequacy ratio). At the same time, kwanza depreciation increases the kwanza value of dollar-denominated assets and raises banks' risk-weighted assets (the denominator of the capital adequacy ratio). On balance, if the kwanza depreciates by 50 percent, most banks will see their capital adequacy ratios decline after the first round even though they are long in U.S. dollars.
- 2- In the second round, the banks are affected by higher credit risk induced by the kwanza depreciation. Although de-dollarization has substantially progressed, Angolan banks still hold a large amount of dollar-denominated loans (about 30 percent of total loans to the private sector). As the kwanza weakens, some of their borrowers will have difficulties to service their dollar-denominated debt particularly when they do not have dollar-denominated revenues. This could lead to losses in capital in the event of loan defaults. In this study, it is assumed that a 1 percent kwanza depreciation increases by 0.5 percent non-performing loans of dollar-denominated loans, (i.e., a 50 percent depreciation would lead to a 25 percent rise in non-performing loans), following the 2012 FSAP assumption.

The recapitalization cost for the Angolan banking system from the combined first and second rounds is estimated to be around 4 percent of GDP. However, the depreciation impact on individual banks is substantially different, with roughly half of them requiring additional capital and the other half not requiring.

⁴ For example, Moody's (2015) rates banks by scoring different financial indicators ranging from "very strong" to "very weak". According to this methodology, the non-performing loan ratio above 10 percent is scored as "weak" and above 25 percent as "very weak."

⁵ According to Moody's scoring methodology (2015), the capital adequacy ratio above 14 percent is scored as "strong" and above 18 percent as "very strong."

asset quality deteriorates further along with the sharp economic slowdown. Meanwhile, the liquidity ratio climbed to 42 percent of total assets in July 2015, the highest level in the last five years. Banks have been cautiously shifting their assets to safer products in preparation for the challenges ahead as the economy slows. The combined share of government securities and deposits at the BNA increased to 47 percent of banks' total domestic assets in July 2015, gradually approaching the last peak of 60 percent in late 2008. Simultaneously, banks increased their exposure to foreign exchange mainly through their purchase of dollar-indexed government securities in the expectation of kwanza depreciation. Their net open position in U.S. dollars increased to 36 percent of banks' capital in July 2015 from 9 percent in April 2014.

C. Methodology and Data

8. This study assessed Angolan banks using benchmarking methodologies. There are various well-established methodologies to assess the soundness of banks. However, banks in developing countries, such as Angola, carry specific characteristics and require particular considerations. It is sometimes not suitable to apply conventional methods to such banks. Therefore, this study chose benchmarking methodologies as it was considered that a group of banks in countries with similar development characteristics present approximate benchmarks for Angolan banks. As comparator groups, commercial banks in SSA countries (excluding South Africa) and upper-middle income countries with similar population size were chosen (Table 2). The study conducted an assessment from six dimensions (i) access; (ii) competition; (iii) capital and leverage; (iv) profitability and efficiency; (v) liquidity and funding; and (vi) dollarization. The study also analyzed the main trends for the period between 2005 and 2014.

Table 2. Selected Comparator Countries

	Per capita GDP (USD)	Population (in million)	Number of banks under Bankscope coverage
Angola	6,128	21.4	21
SSA excluding South Africa ¹	1,579	19.2	14
Upper middle income countries ^{1 2 3}	7,054	38.1	54
Algeria	5,886	38.7	20
Angola	6,128	21.4	21
Colombia	8,394	47.7	79
Dominican Republic	5,894	10.6	89
Ecuador	6,270	16.0	28
Iraq	6,474	35.9	32
Islamic Republic of Iran	5,165	78.0	17
Malaysia	11,062	30.5	107
Peru	6,625	31.4	35
Romania	10,161	19.9	37
South Africa	6,354	53.7	67
Thailand	5,550	68.6	58
Tunisia	4,467	11.0	37
Turkey	10,518	77.3	126
Venezuela	6,870	30.5	56

¹ Average of the countries in the group

² With population between 10-100 million.

³ Upper middle income countries are defined as those with GDP per capita between 4,125-12,746 USD in 2014 following the World Bank definition.

Sources: Bankscope - Bureau Van Dijk and IMF staff calculations.

9. Bankscope data were mainly used in the assessment.⁶ In order to serve the purpose of benchmarking, comparability is the most important aspect for selecting the data for this study. Bankscope data serve this purpose well with its relatively wide country coverage and robust comparability across countries. However, there are some drawbacks. First, Bankscope data lack important indicators, such as the capital adequacy ratio and non-performing loans, for many of the Angolan banks. Second, the coverage of banks is not 100 percent: Bankscope covers only 19 Angolan banks, compared to 25 banks reporting to the BNA, with even fewer banks for some years. The exercises that follow were sometimes supplemented by the World Bank's FinStats, and the IMF's Financial Access Survey when necessary.

D. Aggregate Level Analysis

10. The Angolan banks stood on relatively solid fundamentals, on an aggregate basis, compared to banks in comparator countries, although their financial conditions generally deteriorated in recent years (Annex 2). On the other hand, the Angolan banks channeled funds to the economy less efficiently than comparators, restraining the country's economic diversification.

Access⁷

11. Access to the banking system in Angola has improved over the last decade and now stands better than in SSA countries but still worse than upper-middle income countries. The number of branches per 100,000 adults in Angola increased from 3 in 2005 to 13 in 2013, compared to 7 in SSA and 28 in upper-middle income countries. The number of ATMs per 100,000 adults in Angola also rose, from 2 in 2005 to 21 in 2013, compared to 10 in SSA and 45 in upper-middle income countries. However, the banking system is still not accessible for the majority of population with access concentrated in Luanda. For example, the BNA estimated that only 47 percent of population has bank accounts.⁸ The World Bank estimated that Luanda residents (30 percent of population) have about 90 percent of all credit and deposits in the country.

Competition

12. Competition among Angolan banks is weak given high bank concentration but the concentration level is similar to comparators. High levels of concentration usually indicate less competition and less efficiency in the banking industry. The Angolan banking system shows a high concentration, with the share of the three largest banks standing at 61 percent of all commercial banks in terms of total assets in 2013. This ratio has declined very slightly over the last decade.

⁶ Bankscope data and the BNA data show some differences. Therefore, Annex 1 and Annex 2 sometimes show different levels and trends.

⁷ The assessment of access is based on the World Bank's "FinStats" and the IMF's "Financial Access Survey" database.

⁸ See the BNA "Financial Stability Report, 2014."

However, Angola's bank concentration level is similar to that of comparators, indicating that Angola does not stand especially behind those countries in terms of competitiveness among banks.

13. Angola's non-bank financial sector is smaller than in comparator countries, with non-banks posing little competition to banks. The insurance companies' assets in Angola was only 2 percent of GDP in 2010, lower than in SSA countries (5 percent) and in upper-middle income countries (10 percent). Capital markets have been launched in Angola but have not yet grown enough to compete with banks for providing alternative financial products to savers and investors.

Capital and Leverage

14. Angolan banks' leverage has been generally similar to that of comparators, although it has deteriorated in recent years. The equity to total asset ratio in Angola declined from 18 percent in 2010 to 13 percent in 2014, falling somewhat lower than in comparator countries. Although the Angolan level has not reached a threatening level, it requires close attention particularly when asset quality has been rapidly deteriorating as described above.

Profitability and Efficiency

15. Angolan banks' profitability has substantially declined to reach the comparators' level. Profitability has been squeezed by several factors. First, a large number of new entrants into the banking industry intensified competition and reduced margins. Second, lower interest rates, particularly on government bonds, brought in less interest income to banks. Third, operating costs rose as banks aggressively expanded their branch networks along with the government's policy. Consequently, ROE declined from 43 percent in 2009 to 15 percent in 2014 while ROA dropped from 4 percent in 2011 to 2 percent in 2014. The cost to income ratio showed the same trend, increasing from 37 percent in 2009 to 55 percent in 2013. However, profitability indicators for the Angolan banks are still similar to comparators.

16. The Angolan banks are less efficient at channeling funds to the economy compared to comparators. The lending to deposit rate spread of the Angolan banks increased from 6 percentage points in 2008 to 13 percentage points in 2013, well exceeding the spread in banks of comparator countries. As a consequence, this led to high borrowing costs for individuals and firms in Angola. Moreover, the Angolan banks channeled more funding to the government and less to the private sector compared to comparators. Despite wide lending margins, non-interest income of the Angolan banks still accounted for 41 percent of total income in 2014. These indicators show that the Angolan banks are less involved in core lending business and less willing to channel funds to the economy, particularly to the private sector, compared to comparators.

Liquidity and Funding

17. The Angolan banks maintain a high level of liquidity, similar to comparators, and show little risk on their funding side. The liquidity coverage ratio of the Angolan banks has converged over time to the level of comparator countries and stayed generally high. Meanwhile, the Angolan banks source nearly 80 percent of their funding from domestic deposits and stay away from less reliable wholesale funding, such as the interbank market and foreign funding, as the wholesale funding markets are still immature and not abundantly available for Angolan banks.

Dollarization

18. Dollarization in the Angolan banking system has substantially decreased, but is still higher than in comparators. The BNA has aggressively promoted de-dollarization in order to strengthen the effectiveness of monetary policies, increase the credibility of the kwanza, and improve the resilience of the banking system. Among others, the BNA introduced restrictions on foreign currency-denominated lending and a ceiling on banks' net foreign currency exposure of capital (excluding dollar-indexed government bonds). Consequently, dollar-denominated deposits and loans fell from over 60 percent of the total in 2005 to around 30 percent in 2014. However, the ratios are still much higher than comparators.

E. Individual Bank Level Analysis

19. The individual bank level analysis shows some banks appear vulnerable to shocks with limited capital and liquidity buffers (Annex 3). This poses a potential risk to the banking system especially when the country is facing a number of challenges, including soft oil prices, slowing growth, and rising inflation.

- **Capital and leverage** indicators display a large divergence among banks, with some banks showing a reduced capital base and their equity to asset ratio staying well below the comparators throughout the period of analysis.
- **Profitability and efficiency** indicators also show a large variation across banks. ROE and ROA indicate that some banks had losses for several consecutive years, while others barely made any profits. The cost to income ratio shows large differences as well but the ratio generally deteriorated for most of the banks.
- **Liquidity and funding** indicators are quite different among banks, with some banks exhibiting low liquidity positions and their liquidity coverage staying well below the comparators.

F. Banking Resolution and Crisis Prevention Framework

20. Establishing an appropriate bank resolution and crisis prevention regime under a strong institutional framework is urgent. In the past, the authorities responded to occasional bank resolutions on an ad-hoc basis in the absence of an appropriate resolution mechanism. The latest case was Banco Espírito Santo Angola (BESA), which was the biggest bank both in terms of assets and deposits in Angola when it was resolved in 2014. The authorities' response to BESA's failure set a procedural precedent for a future bank resolution process. However, it is unclear whether the procedure followed for resolving BESA would be robust enough if a similar case were to emerge. Also, the lack of an appropriate institutional framework for the resolution process raises questions about transparency, which is critical if taxpayer's money need to be tapped to resolve a future bank failure.

21. The authorities have made a good progress on strengthening the bank supervisory and resolution framework but more needs to be done to make them operational. The authorities established a Financial Stability Committee as an advisory body to the BNA to monitor evolving conditions and risks in the financial system under a new framework. The BNA regularly conducts stress tests on banks under different scenarios and publishes the results in its Financial Stability Reports. In addition, the recently approved Financial Institutions Law established the frameworks for a Deposit Guarantee Fund, a Bank Resolution Fund, and an inter-institutional National Council of Financial Stability. Under this law, bank supervisors have a broad range of intervention and resolution powers at its disposal to enable the replacement of shareholders and the sale of the bank when existing shareholders are not able to address the problems and provide additional capital. However, resolution powers are not sufficiently robust as it lacks some coercive powers. Provisions on resolution financing are lacking. Moreover, the description on the Deposit Guarantee Fund is scant and left many details still to be defined. More remains to be done for the mechanism to become operational and effectively function.

22. The authorities have made less progress on crisis prevention measures. The new Financial Institutions Law is silent on Emergency Liquidity Assistant and Contingency Planning, the most critical parts of the crisis prevention measures. However, the authorities intend to expedite the measures in this area with the help of the World Bank. In particular, the World Bank plans to help the authorities' Crisis Simulation Exercise, which is expected to provide an opportunity for the authorities to test its tools and mechanism and identify appropriate steps to be taken.

G. Concluding Remarks

23. The Angolan banking system is generally sound, but some banks are vulnerable to shocks given limited buffers. On aggregate, the Angolan banks have relatively solid underlying fundamentals although their balance sheets have deteriorated in recent years. The capital and liquidity conditions of the Angolan banking system appear adequate and its level of profitability is in line with banks in comparator countries. However, at an individual bank level, some banks show a narrow capital and liquidity base which makes them vulnerable to shocks.

24. Looking ahead, bank consolidation is probably unavoidable. Once weak banks are identified, they should be encouraged to be swiftly recapitalized or, if those banks are determined non-viable, they should be liquidated. If the government's involvement in this process becomes necessary, this should be done in an orderly and transparent manner under a strong institutional framework. In this connection, it will be essential to continue strengthening the institutional framework of the bank supervision and resolution mechanism. Especially, it is important to take necessary steps for making the Deposit Guarantee Fund, the Bank Resolution Fund, and the National Council of Financial Stability operational. In addition, early implementation of crisis prevention measures will be critical. Among others, crisis management and contingency planning arrangements need to be put in place as soon as possible given that the country is facing very challenging macroeconomic conditions.

Annex I

Angola: Financial Soundness Indicators

	Dec-11	Dec-12	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Jul-15
Capital Adequacy										
Regulatory capital/Risk-weighted assets	18.5	18.3	19.5	22.5	22.0	21.0	19.9	21.2	19.7	19.4
Core Capital (Tier 1)/Risk-weighted assets	14.3	13.6	14.3	16.4	15.9	14.9	13.9	15.2	14.3	14.0
Asset Quality										
Foreign Currency Credit/Total Credit	50.9	42.7	37.8	36.9	34.9	31.6	27.4	27.7	31.0	31.2
Nonperforming loans to gross loans ¹	2.4	6.8	9.7	5.4	6.1	7.0	11.7	13.0	13.8	18.2
Distribution of Credit by Sector										
Claims on the private sector/Gross domestic assets	43.6	45.9	45.7	45.1	44.9	45.4	42.4	40.8	40.3	40.3
Claims on the government/Gross domestic assets	18.4	16.1	19.2	20.4	20.7	23.7	26.2	28.2	29.6	28.3
Earnings and Profitability										
Return on Assets (ROA)	2.6	1.6	1.4	...	...	...	0.6	...	...	...
Return on Equity (ROE)	21.6	12.5	10.9	...	...	...	5.0	...	...	...
Total Costs/Total Income	90.2	99.4	99.6	99.9	99.9	100.0	99.9	99.8	99.7	99.8
Liquidity										
Liquid Assets/Total Assets	28.1	26.3	30.1	30.6	32.2	30.5	33.9	39.3	42.3	42.4
Liquid Assets/Short-term Liabilities	35.4	33.7	36.9	37.3	39.7	37.7	43.3	50.4	54.1	54.3
Total Credit/Total Deposits	59.5	65.5	63.3	62.1	62.5	69.3	59.9	58.8	56.0	56.2
Foreign Currency Liabilities/Total Liabilities	53.6	50.7	43.0	41.4	41.4	37.8	33.1	32.2	33.0	33.1
Sensitivity and Changes to Market ²										
Net open position in foreign exchange to capital	...	...	...	11.9	11.7	11.0	23.7	21.9	32.2	35.8
Number of reporting banks during the period	22	22	22	23	23	23	23	24	25	25

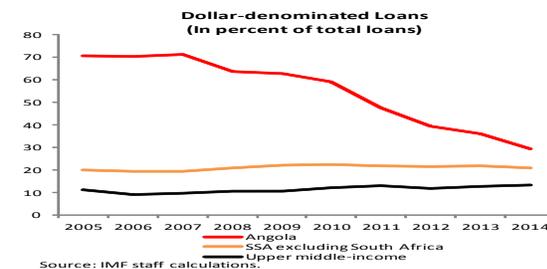
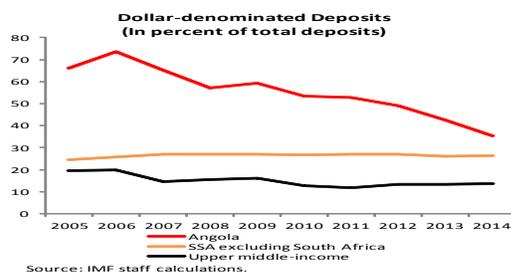
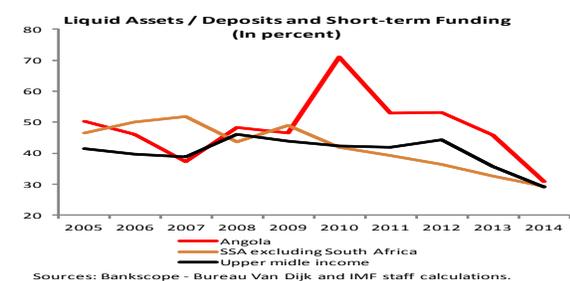
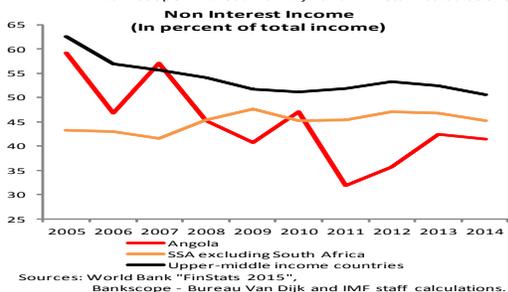
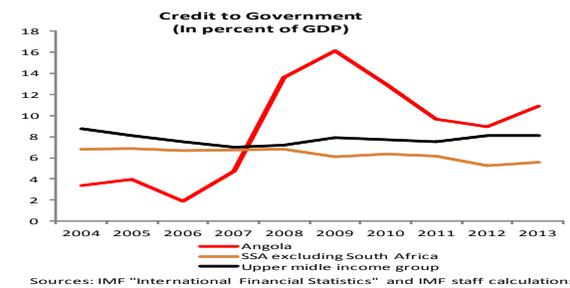
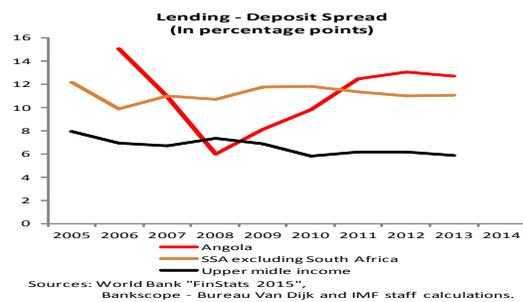
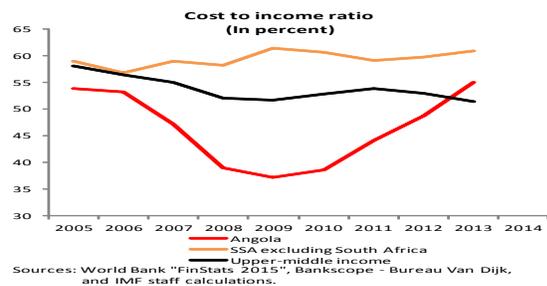
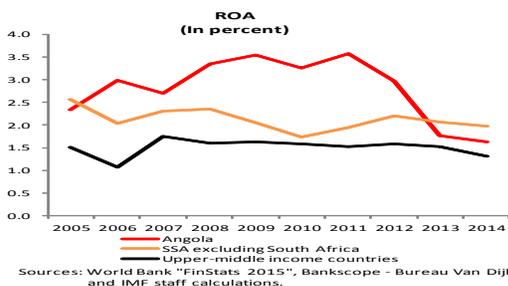
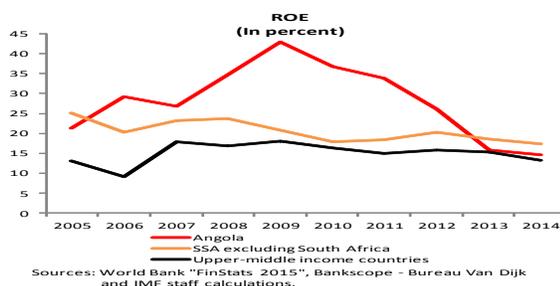
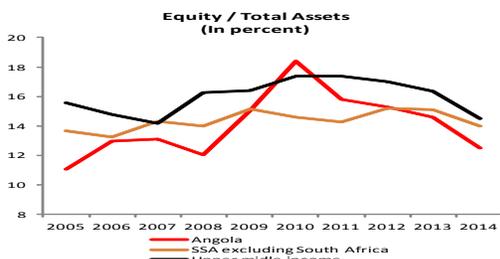
Sources: Angolan authorities and IMF staff estimates.

¹ The variation registered in this ratio, Sept.-14 to Nov.-14, was caused by the considerable increase of nonperforming loans due to the restructuring and adjustment of the loan portfolio of Bank BESA imposed by BNA.

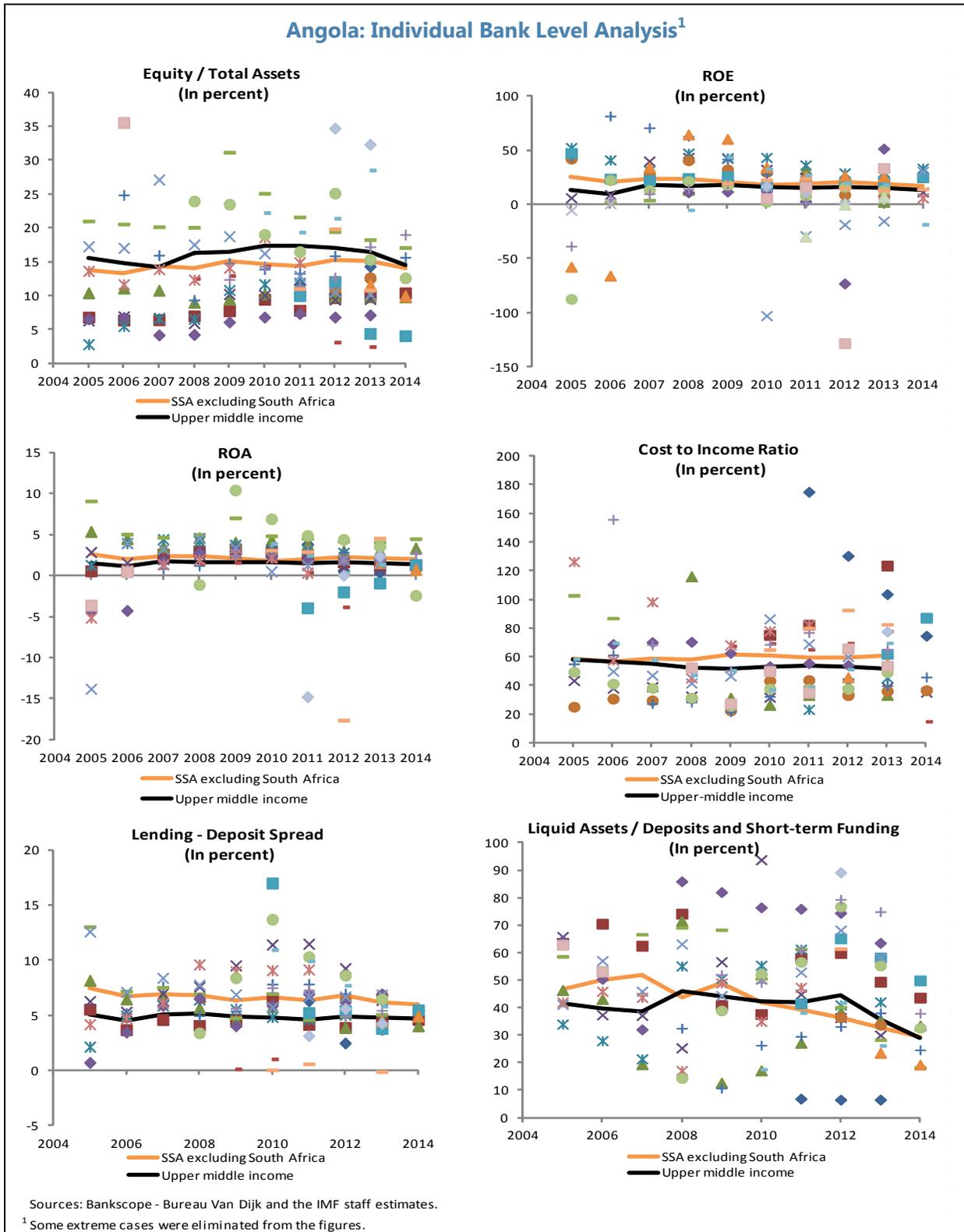
² Based on the information provided by the Department of Supervision of Financial Institutions of the National Bank of Angola.

Annex II

Angola: Aggregate Level Analysis



Annex III



References

- Deloitte, 2014, "Angola 2014 Banking Review," (October).
- Eaglestone Securities, 2014, "Angolan Banks," (September).
- Feyen E, K. Kibuuka, and D. Sourrouille, 2014, "Finstats 2015: A Ready-to-Use Tool to Benchmark Financial Sectors Across Countries and Time," (Washington, World Bank).
- IMF and World Bank, 2012, "Angola - Financial Sector Assessment Program," (Washington: International Monetary Fund and the World Bank).
- KPMG, 2014, "Angola Banking Survey," (October).
- Moody's Investors Service, 2014, "Angola's Banking System: Overview and Outlook," (April 30).
- Moody's Investors Service, 2015, "Rating Methodology: Banks," (March 16).
- National Bank of Angola, "Inflation Report," (various issues).
- National Bank of Angola, "Financial Stability Report," (various issues).
- National Bank of Angola, 2012 and 2015, "Project to Reorganize the Financial Institution Supervision Function, Coverage of the Actions Recommended in the FSAP," Unpublished.
- World Bank, 2015, "Doing Business 2015," (Washington, World Bank).
- World Economic Forum, 2014, "The Global Competitiveness Report 2014-2015," (Geneva, World Economic Forum).

MONETARY POLICY TRANSMISSION¹

This chapter provides econometric evidence of monetary policy transmission in Angola focusing on the interest rate channel and using error correction and structural vector auto-regression (SVAR) methods. It sheds light on the extent and speed of the pass-through from the policy or reference rate to the overnight interbank rate, and from the former to bank deposit and bank lending rates; and the extent and persistence of the impact of changes in the monetary policy stance on real output and prices.

By focusing on the conventional interest rate channel of monetary policy transmission, the analysis is in the spirit of Bernanke and Gertler (1995). Those authors stress that other channels, such as the credit channel, are not to be treated as distinct channels to the traditional monetary policy transmission, but rather as factors that amplify and propagate conventional interest rate effects. In a survey of literature, Taylor (1995) concludes that the interest rate channel of monetary policy is strong given the substantial evidence of interest rate effects on consumer and investment spending. More recent studies, however, find that the interest rate transmission in low-income and developing countries is weaker than in advanced economies (Saborowski and Weber, 2013; Mishra et al., 2010).

The rest of this chapter is organized as follows: Section A provides a snapshot of Angola's monetary policy framework; Section B presents the empirical methods; Section C describes the data; Section D discusses the results; and Section E offers some concluding remarks.

A. Key Features of Angola's Monetary Policy Framework

1. The objective of monetary policy in Angola is to preserve the value of the national currency.² Until September 2011, the National Bank of Angola (BNA) pursued this objective through its reserve money program, with base money as the operational target.

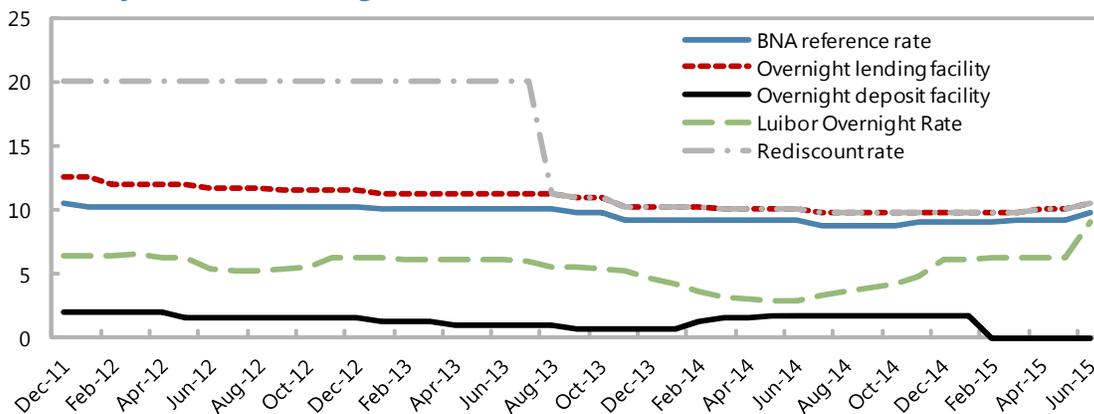
2. While the BNA continues to use a reserve money program to guide monetary policy operations, it has started to rely more heavily on interest rates since the introduction in September 2011 of the BNA reference rate. The BNA has also put in place overnight standing facilities—for injection and absorption of liquidity. Additional instruments to manage liquidity include: 28- and 63-day T-bills; 7- and 28-day repurchase agreements; spot sales of foreign currency; and mandatory reserve requirements.

¹ This chapter was prepared by Jimmy Apaa-Okello (Bank of Uganda), Osvaldo João (IMF Resident Representative Office in Angola), and Fabio Sebastião (National Bank of Angola). It was written when Mr. Apaa-Okello was a Special Appointee at the IMF's African Department.

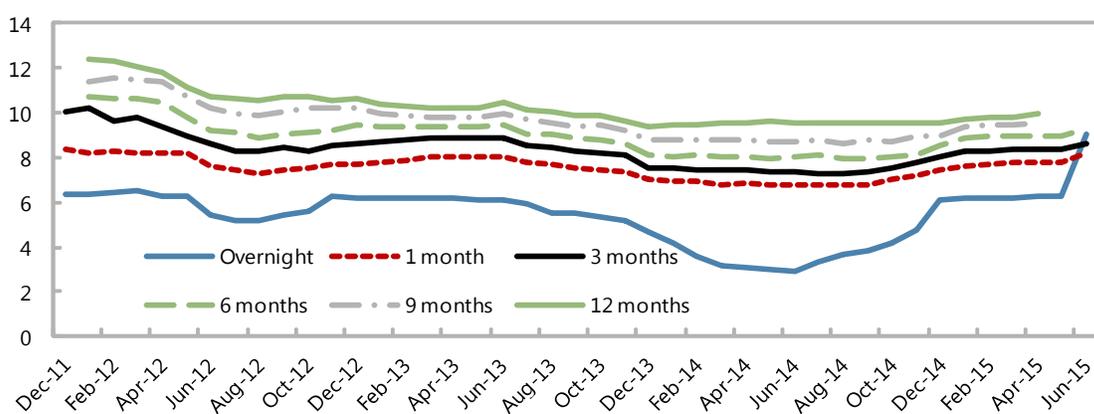
² The objectives and mandate of the BNA are spelt out in the Law on the National Bank of Angola, No. 16/10.

Figure 1. Angola: Interest Rates

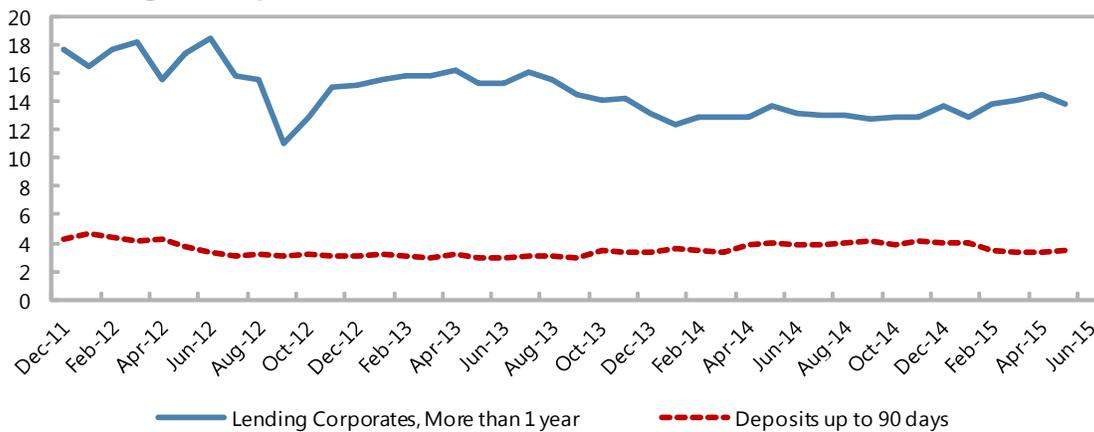
Policy rates and overnight interbank rate



Luanda Interbank Offered Rate (LUIBOR)



Lending and deposit rates



Sources: Angolan authorities.

3. The overall responsibility for setting strategic direction for monetary policy rests with the Economic Commission (EC). The EC is chaired by the President of the Republic and composed by the Ministers of Finance, Planning, and Commerce, as well as the BNA Governor. The BNA's Monetary Policy Committee (MPC), established in October 2011, sets monetary policy stances. The MPC is composed by the BNA Governor and Board of Directors and conducts its meetings every month. Decisions of the MPC are communicated to the markets through press releases. A sub-committee of the EC, the Liquidity Committee—chaired by the Secretary of State for the Treasury and comprised of the Directors of the BNA Board and relevant Directors of the BNA—coordinates monetary and fiscal policy implementation, including by making recommendations for the implementation of weekly liquidity programs. The BNA's Market Committee—chaired by one of the BNA Deputy Governors and comprised of BNA technical staff—analyzes market developments and determines the mix of instruments to achieve the targets set by the Liquidity Committee.

B. Methodology

Error correction method

4. The pass-through from the reference rate to interest rates is estimated in two steps. First, from the reference rate to the overnight interbank rate. Second, from the former to bank deposit and bank lending rates. The advantage of conducting the analysis in two steps is that the results from the first step give an indication of how well the monetary policy framework is setup to influence money market rates, while the results from the second step indicate whether or not money market rates add to the marginal cost of funding for banks. The error correction method was used in each of the two steps, allowing for an estimation of the long- and short-run pass-through as well as the speed of adjustment.

5. Following Engle and Granger (1987), the first step is specified as follows:

$$OL_t = \beta_0 + \beta_1 RR_t + \beta_2 EXCV_t + \varepsilon_t \quad (1a)$$

$$\Delta OL_t = \alpha ECT_t + \sum_{k=1}^K \delta_{1k} \Delta RR_{t-k} + \sum_{k=1}^K \delta_{2k} \Delta OL_{t-k} + \delta_{3k} \Delta (EXCV)_{t-k} \quad (1b)$$

where (1a) and (1b) are long- and short-run equations, respectively; OL_t is the overnight interbank rate; RR_t is the reference rate; and $EXCV_t$ is the coefficient of variation of the exchange rate. The error correction term, $ECT_t = (OL_{t-1} - \beta_0 - \beta_1 RR_{t-1} - \beta_2 EXCV_{t-1})$, is the residual from the long-run equation, which measures period $t - 1$ deviations from the long-run stationary relationship. The average elasticity of overnight interbank rate with respect to the reference rate is $\eta = \beta_1 \frac{\text{mean}(RR)}{\text{mean}(OL)}$ and α is the coefficient of adjustment, which is the speed with which the overnight interbank rate returns to its steady state.

6. The identifying assumption underlying the above specification is that the reference rate is weakly exogenous to the overnight interbank rate. In other words, there is no feedback from the overnight interest rate to the reference rate. This assumption is reasonable given that reference rate is exogenously determined by the BNA's MPC.

7. A measurement of exchange rate variability was included in the regression to control for the impact of exchange rate fluctuations. During periods of higher exchange rate volatility, the demand for foreign currency deposits may increase as they are perceived to be safer than local currency deposits—flight to quality. As concerns about the loss in value of domestic currency deposits would lead residents to hold a larger share of their financial assets in foreign currency, the interest rate on local currency deposits should increase.¹ The expected sign of the exchange rate variability coefficient is therefore positive.

8. The second step, i.e., from the overnight interbank rate to bank deposit and bank lending rates is specified as follows:

$$IR_t = \theta_0 + \theta_1 OL_t + \varepsilon_t \quad (2a)$$

$$DR_t = \theta_0 + \theta_1 OL_t + \varepsilon_t \quad (2b)$$

$$\Delta IR_t = \alpha ECT_t + \sum_{k=1}^K \delta_{1k} \Delta OL_{t-k} + \sum_{k=1}^K \delta_{2k} \Delta IR_{t-k} + \delta_{3k} \Delta(Z)_{t-k} \quad (2c)$$

$$\Delta DR_t = \alpha ECT_t + \sum_{k=1}^K \delta_{1k} \Delta OL_{t-k} + \sum_{k=1}^K \delta_{2k} \Delta DR_{t-k} + \delta_{3k} \Delta(Z)_{t-k} \quad (2d)$$

where (2a) and (2b) are long-run equations; (2c) and (2d) are their corresponding short-run equations; IR_t is the bank lending rate; DR_t is the bank deposit rate; Z are the controls which are $I(0)$; and ECT_t are the error correction terms.

9. The identifying assumption underlying the above specification is that bank lending and bank deposit rates are weakly exogenous to the overnight interbank rate. The weak exogeneity assumption for lending rates seems reasonable because rates on bank lending, which are generally of longer maturities, are not likely to have feedback effects on the overnight interest rate. This assumption for deposit rates, however, is likely to be strong as higher deposit rates might lead banks to increasingly source their funds from the money market, causing the overnight interbank rate to increase.

¹ For the impact of exchange rate volatility on foreign currency deposit demand, see Nkunde and Kumah (2015).

Structural vector auto-regression (SVAR)**10. Following Sims (1986), a (recursive) SVAR is represented as follows:**

$$y_t = A_1 Y_{t-1} + \dots + A_q Y_{t-q} + BZ_t + B_1 Z_{t-1} + \dots + B_p Z_{t-p} + u_t \quad (3)$$

where $t=1, \dots, T$; Y_t is an $M \times 1$ vector of endogenous time series variables, containing an intercept, a time trend, and other deterministic terms; Z is a vector of exogenous variables; u_t is a vector of residuals; A_i and B_i are matrices of coefficients; and p and q are non-negative integers representing the number of lags included in the model.

The variance covariance matrix Σ is given as $\Sigma = E u_t u_t'$. Estimates of A_i , B and Σ are obtained using ordinary least squares. Once the estimates are obtained, one has to recover the parameters of the structural form model, as:

$$C_0 Y_t = C_1 Y_{t-1} + \dots + C_q Y_{t-q} + DZ_t + \varepsilon_t \quad (4)$$

where C_i and D are matrices of parameters underlying the structure of the economy; ε_t is a vector of structural shocks; and the corresponding variance covariance matrix is $W = E \varepsilon_t \varepsilon_t'$.

The reduced and structural form parameters are related as:

$$A_i = C_0^{-1} C_i, \quad \varepsilon_t = C_0 u_t \quad (5)$$

The relationship between the variance covariance matrices of the reduced and structural form models are written as: $\Sigma = C_0^{-1} W (C_0^{-1})'$. The lack of information about the contemporaneous parameter matrix, C_0 , results in identification problems often encountered in the SVAR literature. This identification problem is associated with the fact that the number of estimated parameters in the reduced form model (3) is smaller than the number of parameters in the structural form model (4). This problem is resolved by imposing certain restrictions on the structural parameters, otherwise the structural form cannot be identified.

As in Sims (1980) identification scheme, Choleski decomposition is applied to the contemporaneous parameter matrix, C_0 . The ordering of the newly obtained triangular matrix is as follows:

$$\begin{bmatrix} \varepsilon_t^y \\ \varepsilon_t^p \\ \varepsilon_t^m \\ \varepsilon_t^r \\ \varepsilon_t^e \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ a_{21} & 1 & 0 & 0 & 0 \\ a_{31} & a_{32} & 1 & 0 & 0 \\ a_{41} & a_{42} & a_{43} & 1 & 0 \\ a_{51} & a_{52} & a_{53} & a_{54} & 1 \end{bmatrix} \begin{bmatrix} u_t^y \\ u_t^p \\ u_t^m \\ u_t^r \\ u_t^e \end{bmatrix} \quad (6)$$

where y is real output; p is price level; m is reserve money; r is the reference rate; and e is the exchange rate.

11. The order of variables in the SVAR accounts for the monetary policy process. The BNA relies on reserve money and the reference rate to signal the stance of monetary policy. The variables are thus ordered as following: y , p , m , r , and e , implying that output and price level react to the shocks of reserve money with a lag, or reserve money responds contemporaneously to shocks in output and prices. The reference rate is placed after reserve money to take into account the fact that it is chosen after the base money path is determined (reversing this order would not change the results though). The exchange rate is ordered last in the SVAR to allow it to respond to all innovations in macroeconomic fundamentals.

C. Data

12. For the error correction method, monthly data from January 2005 through May 2015 were used. Data were obtained from country authorities and IMF databases. The BNA reference rate, which is the policy rate, was introduced only in September 2011, providing a short series that cannot be used for meaningful analysis. We thus use the rediscount rate as proxy for the reference rate given the very high correlation between the two since September 2011. The overnight interbank rate is used because it is the rate on the most active interbank window.² For the bank deposit rate, we use the rate on deposits up to 90-day maturity (in line with existing literature and the fact that these deposits constitute about two-thirds of total local currency deposits in Angola). The bank lending rate is the rate on corporate loans of more than 1-year maturity (corporate loans accounted for almost 90 percent of total bank credit to the private sector at end-December 2014).

13. Dummies.³ Dummy (*doi*) was created to account for the period of significant oil price volatility at the onset and immediate aftermath of the 2008-09 global financial crisis. Other dummies (*d05*, *d08*) were created to control for anomalies in the data.

Table 1. Angola: Interest Rates and CPI, Descriptive Statistics, January 2005–May 2015

	Mean	Median	Standard Dev.	Max.	Min.
Rediscount Rate	20.72	19.75	9.43	50.00	9.75
Overnight IR	10.72	7.26	6.53	24.38	2.94
Deposit Rate, < 90 days	6.71	5.37	3.79	16.93	2.74
Lending Rate, Corporate >1year	21.10	15.17	18.07	79.80	3.45
Exchange Rate, Coefficient of Variation	1.86	1.01	1.93	7.45	0.05
CPI Inflation	12.74	12.36	4.37	29.58	6.89

² The overnight LUIBOR was introduced in September 2011. To consider a longer series, we combined the overnight LUIBOR with overnight interbank data prior to September 2011.

³ See Davoodi, Dixit and Pinter (2013) for application of dummy variables in estimation of monetary policy transmission.

14. For the SVAR, monthly data from January 2003 through June 2015 were used. Data on the price level, reserve money, and interest and exchange rates were readily available from country authorities and IMF databases. As above, we use the BNA rediscount rate as proxy for the reference rate. Monthly output data are not available, and we built a monthly Composite Index of Economic Activity (CIEA).⁴ The CIEA tracks well official annual output estimates (with a correlation of 94 percent). All the time series were seasonally adjusted using *X-12 ARIMA*. The SVAR was estimated in log levels, except for the rediscount rate, which is in percentage points. The use of logs, however, preserves long-run relationships, if any, and does not affect statistical inferences (Sims, Stock, and Watson, 1990).

15. Exogenous variables were used in the SVAR to control for the impact of global and domestic supply and demand conditions affecting domestic output and prices. They include the global food price index and bank credit to the private sector. Global food prices are expected to significantly affect domestic inflation because food (mostly imported) constitutes about 60 percent of the CPI basket. Bank credit to the private sector is expected to affect economic activity and prices.

Table 2. Angola: SVAR Variables, Descriptive Statistics, January 2003–June 2015

	Mean	Median	Standard Dev.	Max.	Min.
Log(CIEA)	4.15	4.20	0.79	5.25	2.78
Log(CPI)	4.25	4.36	0.66	5.06	2.33
Log(Monetary Base)	12.42	12.71	1.39	14.29	9.34
Rediscount Rate	46.85	20.00	50.27	150.00	9.75
Log(Food Price Index)	4.46	4.51	0.28	4.84	3.94
Log(Exchange Rate)	4.40	4.45	0.23	4.70	3.41
Log(Bank Credit to Private Sector)	12.94	13.44	1.73	15.01	8.87

D. Empirical Results

Error correction method: long-run estimates

16. The long-run elasticity of the overnight interbank rate with respect to the rediscount rate is close to one. The coefficient on the rediscount rate is 0.43, which translates into an elasticity of 0.83 (Table 3, column 1): 100 bps increase in the rediscount rate leads, in the long-run, to an increase of 83 bps in the overnight interbank rate.

17. The exchange rate variability is also positively correlated with the overnight interbank rate. The inclusion of this variable leads to a small reduction in the elasticity of the overnight interbank rate with respect to the rediscount rate (Table 3, column 2).

⁴ The CIEA combines M2, bank credit to the private sector, total imports and exports, energy consumption, cement production, and public investment into a single index.

Table 3. Angola: Long-Run Regression Results for Step 1 (Overnight IR)

	(1) Overnight IR	(2) Overnight IR
Intercept	-0.259 (0.648)	-0.764 (0.616)
Rediscount Rate	0.429* (0.028)	0.409* (0.027)
doil	6.710* (0.618)	6.218* (0.588)
Exchange Rate Variability		0.574* (0.131)
Pass-through elasticity	0.830	0.789
Standard Error of Regression	2.952	2.755
Observations	125	125

Standard errors are in parenthesis. *** p<0.10; ** p<0.05; and * p<0.01.

18. The long-run elasticity of the bank deposit rate with respect to the overnight interbank rate is very close to one. The coefficient on the overnight interest rate is 0.62, which translates into an elasticity of 0.99 (Table 4, column 1): 100 bps increase in the overnight interbank rate leads, in the long-run, to an increase of 99 bps in the bank deposit rate.

Table 4. Angola: Long-Run Regression Results for Step 2 (Deposit Rate)

	(1) Deposit Rate	(2) Deposit Rate
Intercept	0.567*** (0.296)	0.494*** (0.2914)
Overnight IR	0.618* (0.029)	0.590* (0.0305)
doil	-2.185* (0.416)	-2.152* (0.4084)
Exchange Rate Variability		0.200** (0.082)
Pass-through Elasticity	0.987	0.942
Standard Error of Regression	1.601	1.570
Observations	125	125

Standard errors are in parenthesis. *** p<0.10; ** p<0.05; and * p<0.01.

19. The exchange rate variability is also positively correlated with the deposit rate. The inclusion of this variable leads to a small reduction in the elasticity of the bank deposit rate with respect to the overnight interbank rate (Table 3, column 2).

20. The long-run elasticity of the bank lending rate with respect to the overnight interbank rate is small. The coefficient on the overnight interbank rate is 0.32, which translates to a long-run elasticity of only 0.16 (Table 5, column 2): 100 bps increase in the overnight interbank rate leads, in the long-run, to an increase of 16 bps in the lending rate.

Table 5. Angola: Long-Run Regression Results for Step 2 (Lending Rate)

	(1) Lending Rate	(2) Lending Rate
Intercept	6.593** (2.826)	13.015* (0.862)
Overnight IR	1.334* (0.224)	0.322* (0.075)
d05		54.748* (1.62)
d08		-6.952* (1.490)
Pass-through Elasticity	0.678	0.163
Standard Error of Regression	15.990	4.765
Observations	125	125

Standard errors are in parenthesis. *** p<0.10; ** p<0.05; and * p<0.01. Column 2 is preferred because of the much lower standard error of regression.

Error correction method: short-run dynamics

21. The estimated error correction term of the pass-through from the rediscount rate to the overnight interest rate has the expected sign and is statistically significant. The adjustment coefficient of -0.123 implies that the overnight interest rate would correct by 12.3 percent per month following a disturbance to its equilibrium relationship with the rediscount rate (Table 6). This suggests a slow adjustment: it would take about 8 months for a change in the rediscount rate to be fully passed on to the overnight interest rate.

22. The estimated error correction term of the pass-through from the overnight interest rate to bank deposit and bank lending rates have the expected sign and are statistically significant (Table 7). For the deposit rate, the adjustment is relatively fast: it would take less than 3 months for a change in the overnight interest rate to be fully passed on to the deposit rate. For the lending rate, however, the adjustment is slow: it would take almost 6 months for a change in the overnight interest rate to be passed on to the lending rate.

Table 6. Angola: Regression Results for Step 1 (Dynamics)

	D(Overnight IR)
ECT	-0.123** (0.045)
DL0(Rediscount Rate)	0.090** (0.040)
DL1(Rediscount Rate)	0.185* (0.042)
DL2(Overnight IR)	0.178** (0.077)
Intercept	-0.004 (0.125)
R-squared	0.298
DW	2.134
Observations	123 after adjustments

Standard errors are in parenthesis. *** p<0.10; ** p<0.05; and * p<0.01. D and L represent first difference and lags, respectively.

Table 7. Angola: Regression Results for Step 2 (Dynamics)

	D(Lending Rate)		D(Deposit Rate)
ECT	-0.174* (0.038)	ECT	-0.366* (0.067)
DL2(Overnight IR)	0.773** (0.337)	DL0(Overnight IR)	0.212** (0.069)
DL3(Overnight IR)	-1.420* (0.331)	DL1(Overnight IR)	0.248* (0.0723)
DL2(Lending Rate)	-0.421* (0.072)	DL1(Exchange Rate Variability)	-0.652* (0.309)
Intercept	-0.977*** (0.552)	DL2(Exchange Rate Variability)	0.912* (0.306)
		Intercept	-0.035 (0.115)
R-squared	0.399	R-squared	0.382
DW	1.890	DW	2.045
Observations	121 after adjustments	Observations	123 after adjustments

Standard errors are in parenthesis. *** p<0.10; ** p<0.05; and * p<0.01. D and L represent first difference and lags, respectively

23. Diagnostic tests indicate that there is no serial correlation in the residuals for all the short-run dynamic estimates. However, the residuals are not normally distributed.

SVAR

24. The impulse response functions show that real output and prices respond as expected to a monetary policy (base money) shock (Figure 2).⁵

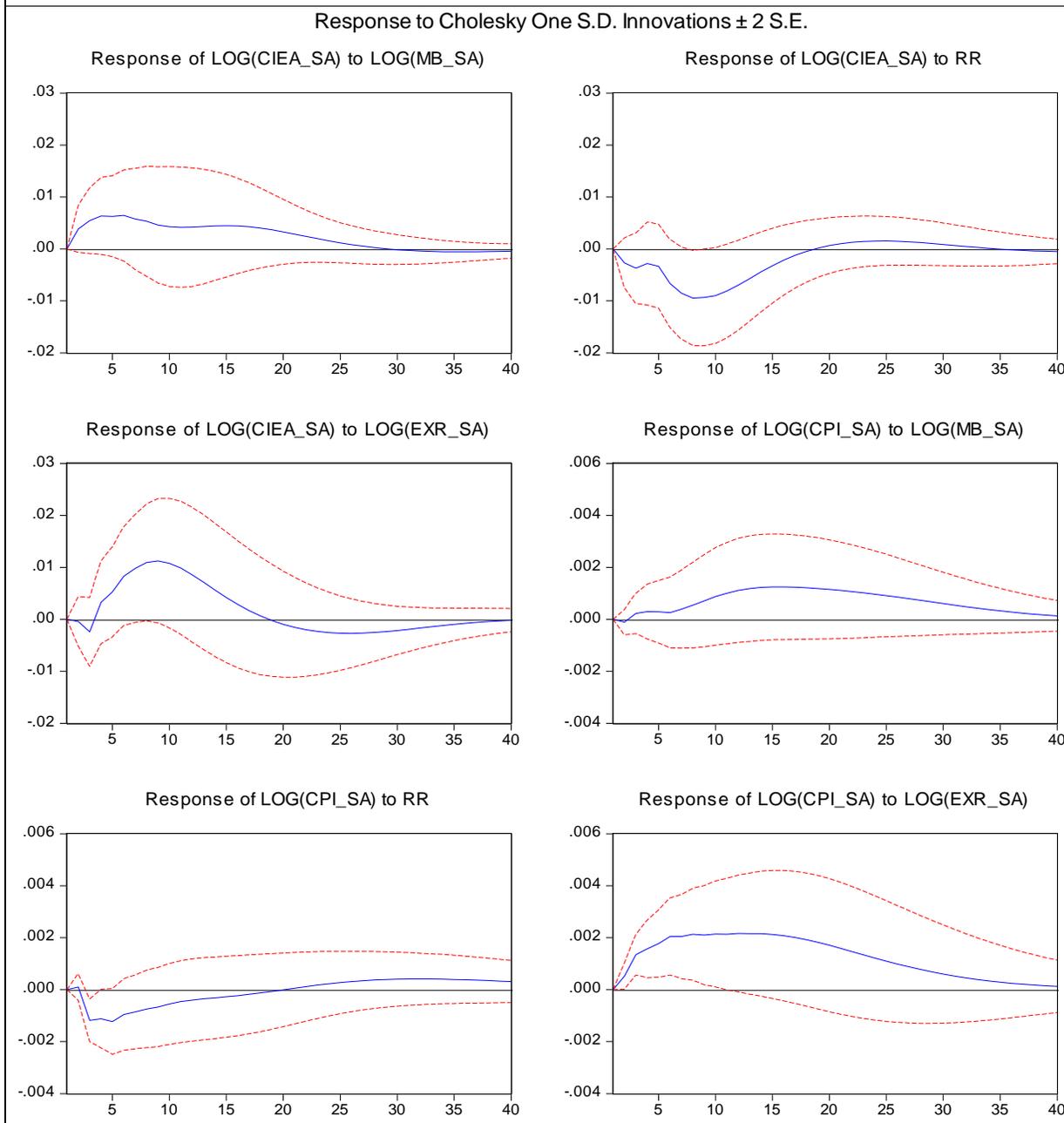
- An unanticipated one-off increase in base money has a persistent impact on economic activity, peaking at 6-7 months after the shock, before it starts to dissipate slowly. Whereas it has a muted effect on prices in the first 3 months, but the impact turns positive, peaking at 15 months before it begins to decline.
- A one standard deviation increase in the rediscount rate has a persistent impact on economic activity, peaking at 8 months, before dissipating toward the steady state. It leads to a negative impact on prices, peaking at 7 months after the shock, when it starts to dissipate slowly for 18 months.
- In the first two months, an increase in the nominal exchange rate (interpreted as depreciation) leads to a mild decline in output, but turns strongly positive peaking at 9-10 months before it starts to dissipate. It has a positive effect on prices, peaking at 5-6 months before dissipating slowly toward the steady state.

E. Concluding Remarks

25. The results above suggest that while changes in the monetary policy stance are transmitted to interbank and bank deposit rates, the speed of adjustment is slow. There is, therefore, scope for improving the BNA monetary policy framework. For example, to more effectively influence interbank rates, the BNA should consider setting a relatively narrow corridor (e.g., +/- 300 bps) around its policy or reference rate, within which the target interbank rate (the rate on the most active interbank window) should fall at all times. Operationally, this would be accomplished by conducting the needed interventions in the money market—injecting or mopping up liquidity—to keep the target interbank rate within that band. As monetary policy effectiveness also depends on the overall liquidity in the banking system, the BNA is encouraged to avoid significant excesses (or lack) of liquidity by, inter alia, enhancing capacity for monitoring and forecasting liquidity. This would help increase the speed of transmission of changes in the monetary policy stance to deposit rates.

⁵ The CPI enters the SVAR model with a lag of one month on account of high inflation inertia in Angola. The total number of lags for the recursive SVAR model is 5, selected using Akaike Information Criteria (AIC) and Schwarz Information Criteria (SIC).

Figure 2. Angola: Recursive SVAR Impulse Responses



Note: Shocks are one standard deviation. The vertical axes are proportions (e.g. 0.001 = 0.1%) and horizontal axes are months. The two dotted lines plot the uncertainty associated with the estimated coefficients in the model (95percent confidence intervals).

26. The results also suggest that lending rates tend to be sticky, limiting the transmission of monetary policy. This could be, at least in part, explained by Angola's underdeveloped financial markets, which still lack, for example, negotiable financial instruments, such as commercial papers, and active secondary markets. The authorities are thus encouraged to continue developing Angola's financial markets, by encouraging, inter alia, the creation of deep and liquid markets for domestic bonds. The sticky nature of lending rates in Angola could also reflect inherent credit risks in the banking sector, partly explained by a deficient secured transactions framework due to shortcomings of collateral registries, a weak judiciary system, and poor access to credit information. It will be important, therefore, to develop movable collateral registries and enhance access to information of such registries, and pass the needed legislation in support of secured lending practices.

References

- Bernanke, Ben S., and M. Gertler, 1995, "Inside the Black Box: The Credit Channel of Monetary Policy Transmission," (*Journal of Economic Perspectives*, Fall of 1995, 9, 27-48).
- Davoodi H.R., S. Dixit and G. Pinter, 2013, "Monetary Transmission Mechanism in the East African Community: An Empirical Investigation," (*IMF Working Paper*, WP/13/39).
- Engle, R. F. and C. W. J. Granger, 1987, "Cointegration and Error Correction: Representation Estimation and Testing," (*Econometrica*, vol. 55, pp. 251–276).
- Mishra P., Peter J. Montiel, and A. Spilimbergo, 2010, "Monetary Transmission in Low Income Countries," (*IMF Working Paper*, WP/10/223).
- Nkunde M. and F. Y. Kumah, 2015, "Revisiting the Concept of Dollarization: The Global Financial Crisis and Dollarization in Low-Income Countries" (*IMF Working Paper*, WP/15/12).
- Saboroski, C., and S. Weber, 2013, "Assessing the Determinants of Interest Rate Transmission through Conditional Impulse Response Function," (*IMF Working Paper* WP/13/23).
- Sims, Christopher A., 1980, "Macroeconomics and Reality," (*Econometrica* vol. 48, pp. 1-48).
- Sims, Christopher A., 1986, "Are Forecasting Models Usable for Policy Analysis?" (*Federal Reserve Bank of Minneapolis Quarterly Review*, Winter of 1986, pp. 2-6).
- Sims, Christopher A., James H. Stock, and Mark W. Watson, 1990, "Inference in Linear Time Series Models with Some Unit Roots," (*Econometrica*, vol. 58, pp. 113-144).
- Taylor, John B., 1995, "Macroeconomic Policy in a World Economy: From Econometric Design to Practical Operation," (New York: W.W. Norton, 1993).