



# DJIBOUTI

## SELECTED ISSUES

July 2016

This paper on Djibouti was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on November 18, 2015.

Copies of this report are available to the public from

International Monetary Fund • Publication Services  
PO Box 92780 • Washington, D.C. 20090  
Telephone: (202) 623-7430 • Fax: (202) 623-7201  
E-mail: [publications@imf.org](mailto:publications@imf.org) Web: <http://www.imf.org>  
Price: \$18.00 per printed copy

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



# DJIBOUTI

## SELECTED ISSUES

July 2016

This paper on Djibouti was prepared by a staff team of the International Monetary Fund [as background documentation for the periodic consultation with the member country]. It is based on the information available at the time it was completed on [date on page 1 of final report circulated].

Copies of this report are available to the public from

International Monetary Fund • Publication Services  
PO Box 92780 • Washington, D.C. 20090  
Telephone: (202) 623-7430 • Fax: (202) 623-7201  
E-mail: [publications@imf.org](mailto:publications@imf.org) Web: <http://www.imf.org>  
Price: \$18.00 per printed copy

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



# DJIBOUTI

## SELECTED ISSUES

November 18, 2015

Approved By  
**Middle East and  
Central Asia  
Department**

Prepared By Victor Davies, Hamid Reza Tabarraei, and  
Boumedienne Taya

## CONTENTS

|   |           |
|---|-----------|
| <b>FISCAL REFORM FOR FISCAL SUSTAINABILITY AND INCLUSIVE GROWTH IN<br/>DJIBOUTI</b> | <b>3</b>  |
| A. Introduction   | 3         |
| B. Current Policy and Reform Priorities   | 5         |
| C. Conclusions  | 13        |
| <b>FIGURE</b>   |           |
| 1. Investment, Debt, and Revenue, 2010–20   | 4         |
| References  | 14        |
| <b>PUBLIC INVESTMENT, GROWTH AND DEBT SUSTAINABILITY IN DJIBOUTI</b>                | <b>15</b> |
| A. Introduction   | 15        |
| B. Model Description  | 17        |
| C. Investment Scenarios and Results   | 18        |
| D. Policy Recommendations   | 21        |
| <b>FIGURES</b>  |           |
| 1. Investment, Debt, and Revenue, 2010–20   | 16        |
| 2. Public Investment Management Index Scores by country                             | 17        |
| 3. Baseline Scenario constrained VS. Unconstrained Tax Adjustment                   | 19        |
| 4. Baseline Scenario with Different Frictions                                       | 20        |
| 5. High Investment Scenario with Different Frictions                                | 21        |

|   |           |
|---|-----------|
| References  | 23        |
| <b>FINANCIAL INCLUSION IN DJIBOUTI</b>                          | <b>24</b> |
| A. Summary  | 24        |
| B. Introduction   | 24        |
| C. Credit and Deposit in the Banking System                     | 25        |
| D. Financial Services Constraints in Djibouti                   | 28        |
| E. Model Description and Calibration Policy                     | 30        |
| F. Policy Recommendations                                       | 34        |
| <b>FIGURES</b>  |           |
| 1. Evolution of Deposit and Credit in the Banking System        | 25        |
| 2. Credit and Deposit in Djibouti and Other Countries           | 26        |
| 3. Bank Loan Concentration and Risks in the Banking System      | 27        |
| 4. Number of Accounts versus Credit                             | 27        |
| 5. Banks Lending  | 28        |
| 6. Comparative Statistics: Reducing Participation Costs         | 32        |
| 7. Comparative Statistics: Relaxing Borrowing Constrains        | 33        |
| 8. Comparative Statistics: Increasing Intermediation Efficiency | 34        |
| <b>APPENDIX</b>   |           |
| I. Access to and Use of Financial Services                      | 36        |
| References  | 37        |

# FISCAL REFORM FOR FISCAL SUSTAINABILITY AND INCLUSIVE GROWTH IN DJIBOUTI<sup>1</sup>

*Djibouti is experiencing a predominantly debt-financed scaling up of public investment which the authorities consider vital to boost growth and reduce widespread poverty and unemployment. The investment scaling-up is driven by two large infrastructure projects, which, because of the small size of the economy—less than 1 million people and a GDP of \$1.6 billion in 2014—have led to a significant deterioration of fiscal and external debt indicators. Information is insufficient to project the likely impact of the projects on government revenues, jobs and poverty. However, negative primary balances are projected to prevail over 2015–34, suggesting that fiscal consolidation is imperative to enhance fiscal sustainability. Fiscal reforms will be needed to support fiscal consolidation while creating space for pro-poor expenditures that can promote inclusive growth. Reform of the investment incentive framework and overall tax regime is required not only to support fiscal consolidation but also to level the playing field for investors and enhance revenue mobilization. Social safety nets are essential to help protect the poor, but their design and implementation will be challenging given the weak public institutional capacity and the high level of poverty.*

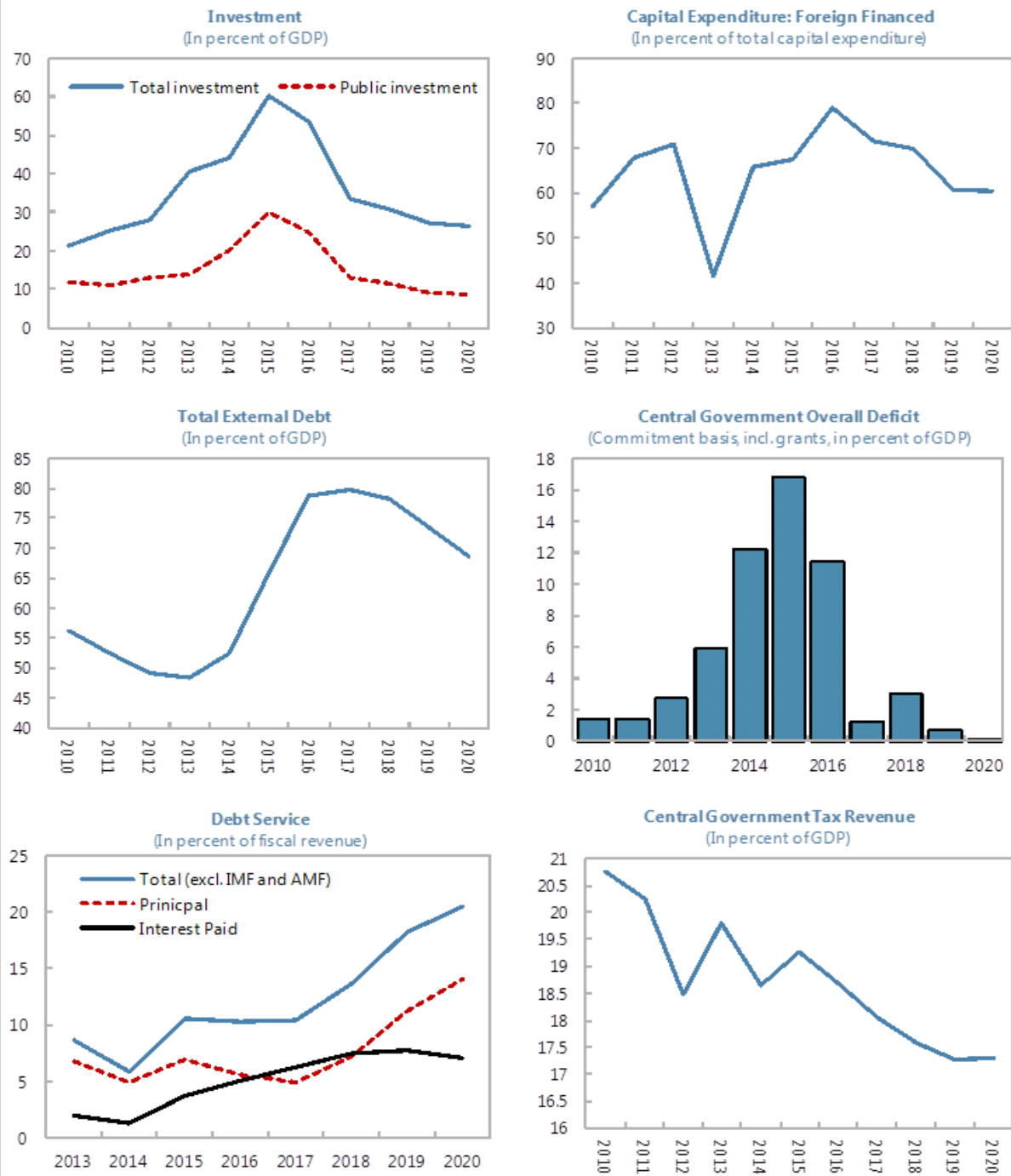
## A. Introduction

**1. Fiscal reform is imperative to generate the revenues needed to service Djibouti's rising external debt and create buffers against risks.** The predominantly debt-financed public investment spending will reach 28 percent of GDP in 2015–16, lifting aggregate investment to 57 percent of GDP. Although the investment boom will boost economic growth, the debt financing will aggravate the already high risk of debt distress. The external debt-to-GDP ratio will rise from 48 percent in 2013 to 80 percent in 2017, while debt servicing would require about a fifth of tax revenues by 2019. Budget deficits will peak at 14 percent of GDP in 2015–16. Projections suggest that, based on current policy, domestic revenues would decline from 19.3 percent of GDP in 2015 to 17.3 percent in 2019. Certain risks could aggravate this scenario. First, debt service could rise for variable interest rate debt. Second, if the investment projects do not generate sufficient revenues to service their debt, the central government would have to step in. Third, unfavorable developments in donor countries could induce them to cut foreign aid which financed about 15 percent of government expenditures in 2010–14. Moreover, aid inflows have been volatile, constraining revenue forecasting, and undermining budget and macroeconomic management. Fourth, a recession in neighboring Ethiopia, which is landlocked and the main client of Djibouti's port services, would hurt Djibouti's public finances. Fifth, a rise in international oil prices could reduce tax revenues under the current tax regime for energy products.

---

<sup>1</sup> Prepared by Victor Davies.

**Figure 1. Djibouti: Investment, Debt and Revenue, 2010-20**



Sources: Djibouti authorities; and IMF staff estimates and projections.

**2. Fiscal reform is also essential to promote inclusive growth which remains Djibouti's fundamental challenge.** About 22 percent of the population lives in extreme poverty while 48 percent of the labor force is unemployed. Recent high economic growth has been driven mainly by investment in the ports, with limited trickle-down. Many of the jobs created have been taken by expatriates because of a weak domestic skills base. This situation could foster social and political tensions in a country considered a haven of stability in an unstable region. Staff and technical assistance reports have highlighted major weaknesses in the current fiscal framework which could undermine pro-poor inclusive growth. Widespread tax exemptions aimed at attracting foreign investment have not generated the expected employment benefits. They have created an uneven playing field for investors, sidelining smaller, labor-intensive domestic enterprises. Implicit subsidies on energy products through reduced taxes have also resulted in forgone fiscal revenues, benefiting higher-income groups disproportionately (FAD, 2012).

**3. The authorities are aware of the need for fiscal reform.** In June 2015, they organized the long-awaited tax conference, considered a key step towards comprehensive tax reform. During the conference, key stakeholders in tax administration, the business community, academia, and civil society, debated the directions for tax reform in Djibouti, around the following themes: (i) simplifying the fiscal regime; (ii) enhancing fiscal equity; (iii) improving tax efficiency; and (iv) securing fiscal revenues. In response to the authorities' request for Fund technical assistance, an FAD expert subsequently worked with the authorities to synthesize the conference recommendations which will be taken to cabinet and parliament.

## B. Current Policy and Reform Priorities

### Debt-financed scaling up of public investment

**4. Public investment spending will reach 28 percent of GDP in 2015–16, up from about 14 percent in 2013.** Two large projects dominate public investment spending, accounting for about 60 percent of the total. The first involves the construction of a railway line linking Djibouti and Ethiopia which is expected to be operational in 2016. Each country is responsible for construction within its territory. Djibouti's 98 km segment of the railway line costs \$550 million (32 percent of 2015 GDP) for which Exim Bank of China has provided a non-concessional loan of \$490 million. To cover a shortfall in domestic resources which the authorities initially intended to use to provide the remaining amount, they sold 10 percent of their stakes in the yet-to-be-created joint Djibouti-Ethiopia company that will oversee the operation of the railway. The authorities expect the railway to generate revenue through increased port traffic, create jobs, and augment transit of goods to fast-growing Ethiopia, which, with a population of 100 million, transits 90 percent of its international trade in goods through ports in Djibouti. The second project involves the construction of a \$340 million (20 percent of 2015 GDP) pipeline to transport potable water from Ethiopia. This project will be entirely financed by the Djibouti government, for which Exim Bank of China has provided a non-concessional loan of \$320 million.<sup>2</sup> The government will provide the remaining

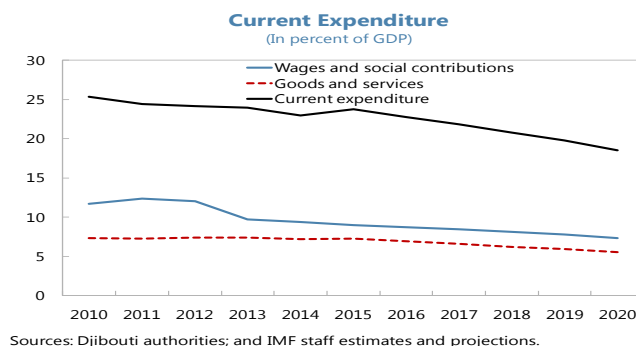
<sup>2</sup> The grant element is 10.6 percent for the Djibouti-Ethiopia railway loan, and 29.7 percent for the water pipeline loan. The two loans would account for 21 percent of debt service by 2021, and 43 percent by 2025.

amount. The pipeline, which is expected to be operational in 2018, will reduce the shortfall in water supply in Djibouti, which has been a source of social and political tensions. It could also induce investment that has been deterred by insufficient water supply. The state-owned ports are also building new ports and expanding existing ones. These expenditures will raise private investment, where they are recorded, to 27 percent of GDP in 2013–16.

**5. The authorities have partially privatized the state-owned Port of Doraleh to help finance public investment spending.** A 23 percent stake in the port was sold in 2013 for \$185 million (13 percent of 2013 GDP). The privatization proceeds helped cover Djibouti's contribution to the railway project and allowed the government to fund some social projects. The sale of assets to help finance the investment program implies that the conventional debt and fiscal indicators may not capture the full impact of the financing of the program.

**6. Current spending is being restrained, partially offsetting investment spending.** Current expenditure fell from 24.2 percent of GDP in 2012 to 22.9 percent in 2014. It is projected to fall to less than 20 percent of GDP by 2019. The main policy underlying the fall has been a hiring freeze in the civil service outside of the education and health sectors, and a freeze in salary increments for civil servants.

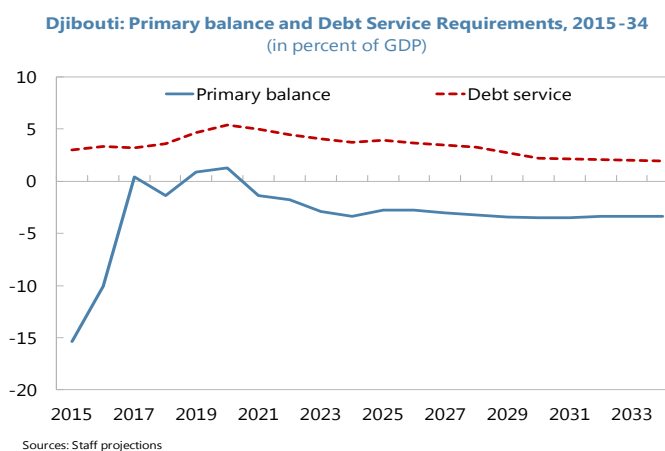
**7. The unprecedented increase in public investment poses challenges for Djibouti's limited public management capacity.** Coordination has been weak among the various government entities involved in debt management, and more generally, among entities that should be involved in contracting foreign loans and in formulating and negotiating investment projects. Notably, responsibility for planning, monitoring, and negotiating external debt agreements is spread between the Ministry of Economy and Finance, and the Ministry of Budget, with some overlap and no clear lines of subordination. Furthermore, there is little evidence that rigorous cost-benefit analyses had been conducted before investment projects were undertaken.



**8. The authorities believe that the investment projects are vital for the development of Djibouti.** In their view, Djibouti, being a resource-poor economy, must develop port and other infrastructure to exploit its strategic location along one of the world's busiest shipping routes. In the absence of other forms of financing, non-concessionary debt financing is perceived as justified despite the high risk of debt distress, which the authorities acknowledge. The authorities are confident that, in the long run, the investment projects would be profitable and generate the revenues needed to service the loans.



**9. The present fiscal path appears unsustainable.** To satisfy its inter-temporal budget constraint without default, a government must achieve primary surpluses whose present value should be sufficient to cover the present value of debt service. The figure and table shows that, for Djibouti, over the period 2015–34, the period covered by the latest debt sustainability analysis, primary balances are almost always negative and lie way below debt service requirements. For instance, starting in 2021, the shortfall in the primary balance relative to debt service requirement is, on average, about 6 percentage points of GDP a year. Given the limited scope for domestic borrowing, the debt service requirements would have to be met through continued foreign borrowing, rather than through government savings. This raises the prospect of default, if the government is unable to borrow; or of abrupt and large adjustments to government spending or large increases in taxes. Thus, the present fiscal path may be unsustainable.



**10. Fiscal sustainability would be enhanced if the projects are profitable.** Information is insufficient to assess the likely impact on fiscal revenues of the two infrastructure projects. Thus, the baseline scenario adopts a conservative position regarding their impact on government revenue. Much of the prospective additional revenues are expected in the longer term. Information is available on actual and projected loan disbursements, debt service requirements, and the public expenditures associated with the construction phase of the projects.

**11. Over the longer term, fiscal consolidation would be necessary to return to a sustainable fiscal and external debt path.** The negative primary balance for most years over 2015–34 indicates that the budget would be in deficit irrespective of debt service obligations. The baseline scenario assumes that the present restraints on current spending—hiring freeze outside of the health and education sector—would hold through 2034, implying little scope for additional cuts to current spending. Thus, fiscal consolidation would largely be concentrated on cutting investment spending and enhancing domestic resource mobilization (see paragraph 20).

| Year | Primary<br>balance | Debt<br>service | Financing<br>gap |
|------|--------------------|-----------------|------------------|
| 2015 | -15.4              | 3.0             | -18.4            |
| 2016 | -10.1              | 3.3             | -13.4            |
| 2017 | 0.4                | 3.2             | -2.8             |
| 2018 | -1.4               | 3.6             | -5.0             |
| 2019 | 0.9                | 4.6             | -3.8             |
| 2020 | 1.3                | 5.4             | -4.1             |
| 2021 | -1.4               | 5.0             | -6.4             |
| 2022 | -1.8               | 4.5             | -6.2             |
| 2023 | -2.9               | 4.0             | -6.9             |
| 2024 | -3.3               | 3.7             | -7.1             |
| 2025 | -2.8               | 3.9             | -6.7             |
| 2026 | -2.8               | 3.6             | -6.4             |
| 2027 | -3.0               | 3.4             | -6.5             |
| 2028 | -3.3               | 3.3             | -6.5             |
| 2029 | -3.4               | 2.7             | -6.1             |
| 2030 | -3.5               | 2.2             | -5.7             |
| 2031 | -3.5               | 2.1             | -5.6             |
| 2032 | -3.4               | 2.1             | -5.5             |
| 2033 | -3.4               | 2.0             | -5.4             |
| 2034 | -3.3               | 1.9             | -5.3             |

### **Reform priorities**

**12. Fiscal consolidation is imperative to return the economy to a sustainable fiscal and debt path.** Over the longer term, it will be necessary to bring investment spending down to moderate levels in order to return the economy to a sustainable fiscal and external debt path. The extent of the cuts would depend on the extent to which the large investment projects are able to service their debt.

**13. Reducing and managing the rapidly growing external debt is an urgent priority.** Public or publicly guaranteed non-concessional borrowing should be limited because it will exacerbate the already high risk of debt distress; debt service capacity should be integrated into the budget planning process; the budget should provide for sufficient liquidity buffers to cover debt service

costs and avoid accumulating arrears; and monitoring and management of government contingent liabilities should be tightened.

#### **14. Strengthen public investment management capacity by:**

- Strengthening public capacity to evaluate and monitor investment projects,
- Conducting a cost-benefit analysis before any investment project is undertaken;
- Prioritizing the execution of proposed projects, taking into account absorptive capacity and resource constraints;
- Reforming public enterprises such as the water and electricity supply companies that will take over the operation of the large investment projects, to ensure the projects' commercial viability.
- Operating the projects on a commercial basis so that they can be profitable and generate the revenues needed to service their debt.
- Strengthening public debt management capacity, including through improved coordination among the government entities involved in debt management, integrating debt service into the budgetary process.
- Strengthening coordination among entities involved in formulating, negotiating and managing investment projects.

#### **Attracting foreign investment through tax concessions**

**15. Attracting foreign investment through generous tax exemptions has been the main pillar of Djibouti's growth strategy.** The investment incentives have been granted through three channels, each with its own tax regime:

- The **free zone** law grants beneficiaries full exemption from direct and indirect taxes for 50 years. Limited-liability companies, single-person businesses, or branches, engaged in industrial, commercial, financial or services activities in any field, are eligible. The applicable taxes are the 5 percent dividend tax introduced in 2015, employee income tax, and VAT. Beneficiaries pay a reduced rate of employer contribution to social security rate of 10.2 percent, rather than the standard 15.7 percent. The Djibouti free zone follows the Dubai model which does not tax income and imposes customs duties of only 5 percent. The Djibouti free zone is somewhat generous compared with other experiences in non-oil-exporting African countries. For instance, exemptions are granted for 10 years in Tunisia. In Morocco, beneficiaries are exempted from patent licenses and stamp duties for 15 years, and from profits tax for five years, after which they are subject to a reduced profit tax rate of 8.75 percent, compared with the rate of 30 percent for non-beneficiaries.

- The **investment code** categorizes enterprises as regimes A and B. Regime A applies to enterprises investing more than 5 million DF (\$28,134) and creating a “sufficient” number of permanent jobs. They are exempted from the domestic consumption tax for five years. Regime B applies to enterprises investing at least DF100 million (\$563,000) or creating a “sufficient” number of permanent jobs. They are exempted for seven years from the domestic consumption tax, profit tax, land/housing tax (for seven years after a building is constructed), and construction permit fees.
- **Discretionary exemptions** have also been granted by the government.

**16. The forgone revenues from the exemptions have not been estimated.** The reason is lack of information due, in part, to failure by the beneficiary enterprises to submit their financial statements to the tax authorities, as required.

**17. The tax exemptions have created an uneven playing field for investors, penalizing non-beneficiaries** who are subject to the general tax code which levies a uniform profit tax of 25 percent and a VAT of 10 percent (7 percent prior to 2015). It penalizes investment by taxing capital and raw materials through a domestic consumption tax which is due at the time of investing, before the returns to the investment are realized, and without any refund in the event of a loss. The marginal effective rate of taxation on investment was 65 percent in 2012 (Ménard, 2013).

### ***Reform priorities***

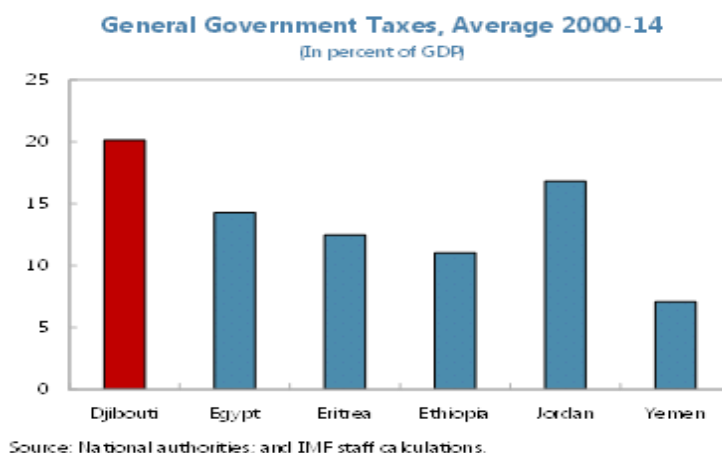
**18. The following recommendations from the FAD expert’s report are relevant** (see paragraph 3).

- Reduce tax exemptions for the free zone. All new enterprises would be exempt from income tax in the first ten years of operation, and subject to an income tax of 15 percent starting in the 11<sup>th</sup> year. Existing enterprises would be exempt from income tax in the first ten years of operation, and subject to an income tax of 5 percent starting in the 11<sup>th</sup> year, 10 percent starting in the 15<sup>th</sup> year, and 15 percent after 20 years. Enhance efforts to ensure that enterprises meet their tax obligations including the requirement to submit income statements, and pay taxes not included in the exemptions such as the 5 percent dividend tax introduced in 2015, the lump sum minimum tax, and employee’s income tax.
- Repeal the investment code; existing exemptions will be honored and, starting in 2017, no new exemption should be issued under the investment code.
- Remove the domestic consumption tax on investment goods (and raw materials) because it penalizes investment.
- Raise the lump sum minimum tax from 1 percent to 1.5 percent. All enterprises (including those benefiting from exemptions) are subject to this tax on their business turnover.

- Increase the threshold for the wages and salaries tax from DF 5000 (\$28) a month to DF 50000 (\$280). This is intended for equity purposes.
- Set up a system of electronic tax filing and payment.
- Replace physical stamps with ink stamps to simplify the process.

**19. The following recommendations from past Article IV consultation staff reports and technical assistance reports remain relevant:**

- Review all existing exemptions agreements to ensure that the actual exemptions are consistent with the terms of the exemptions agreement; and in the case of discretionary exemptions, ascertain that the exemptions were awarded by the competent authority;
- Publish an estimate of the forgone revenues associated with the exemptions;
- Suspend the granting of new discretionary exemptions.

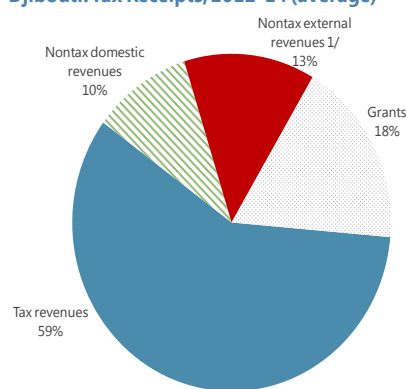


Source: National authorities; and IMF staff calculations.

**20. Domestic revenue mobilization.** Tax revenues in percent of GDP are relatively high in

Djibouti. They averaged 21 percent of GDP over 2000–14 compared with 11 percent in Ethiopia, and 7 percent in Yemen. This could be explained by the existence in those countries of a large subsistence agricultural sector, with limited scope for taxation, while agriculture in Djibouti accounts for about 3 percent of GDP. Djibouti also collects substantial non-tax revenues, notably rents for military bases (non-tax external revenue), which accounted for 13 percent of total revenues in 2012–14. The rents are negotiated bilaterally by Djibouti and the foreign governments and are therefore largely exogenous to economic activity. Non-tax domestic revenue includes dividends from public enterprises, and taxes on petroleum products (which largely depend on international petroleum prices). These are also partly exogenous to economic activity. That said, scope exists for increasing tax revenues by broadening the tax base, revising the investment incentive framework (discussed

**Djibouti: Tax Receipts, 2012-14 (average)**



Sources: Authorities' data and IMF staff estimates.  
1/ Annual leasing fees from French, U.S. and Japanese military bases.

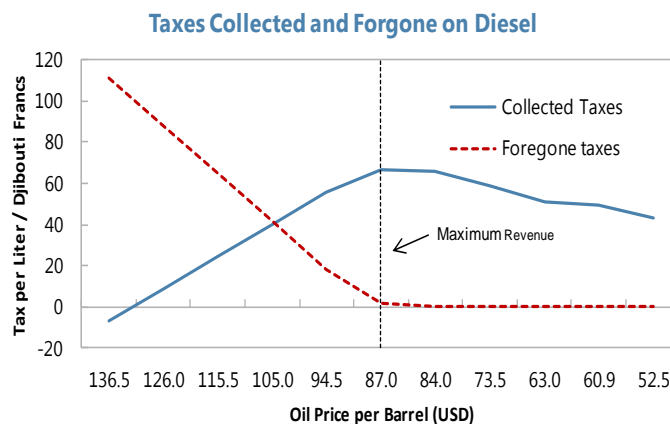
above), and strengthening tax administration by reinforcing human resources and modernizing tax collection facilities. Furthermore, improving the performance of public enterprises would enhance their fiscal contribution. Opening up the telecommunications sector could also generate revenue, and improve efficiency, as experience from other countries shows. Djibouti, along with Ethiopia and Eritrea, are the last three African countries with a monopoly in the telecommunications sector.

### Implicit subsidies on fuel products

**21. Implicit subsidies were introduced in the wake of the 2007–08 global financial crisis to cushion the impact of high international oil prices on domestic consumers.** The current pricing mechanism for kerosene, diesel, and gasoline adds several taxes to CIF prices. The implicit subsidies take the form of a discretionary negative tax adjustment that reduces the applicable taxes on these products. For 2011, the forgone revenues were estimated at 1.7 percent of GDP for diesel, 0.4 percent for kerosene, and less than 0.1 percent for gasoline. In 2012, even with the implicit subsidy, the tax rates were 18 percent of the CIF price of diesel and kerosene, and 83 percent on gasoline, compared with applicable rates of 39 percent for kerosene, 50 percent for diesel, and 91 percent for gasoline.

**22. A large share of the benefits from undifferentiated price subsidies goes to richer households.** For diesel and gasoline, top income quintile households receive 12 times more in direct subsidies than the two poorest quintiles combined. Kerosene is consumed mainly by the poor.

**23. The authorities have kept domestic prices largely unchanged while international oil prices have dropped by over 50 percent since the end of 2014, resulting in a de facto elimination of the implicit subsidies.** Thus, at least some of the past tax subsidies have been recovered. Staff estimates that, for diesel, the main fuel product, below an international price of \$87 a barrel, applicable taxes can be collected in full at the administratively determined domestic prices. Thus, implicit subsidies are eliminated below an international price of \$87 a barrel.



### Reform priorities

**24. Introduce a pricing mechanism that allows a full pass-through of international prices together with safety nets to protect the poor and vulnerable population from any ensuing price increase.** The recent fall in international oil prices offers an opportunity to introduce a market-based pricing mechanism without increasing domestic prices. The authorities agreed in principle but have highlighted the need to develop an adequate safety net program. However, funding and weak

institutional capacity to design, implement, and monitor such a safety net program, together with the large share of the poor and vulnerable in the population, are major constraints.

### **Management and institutional issues**

**25. The budget process and public financial management are weak.** First, the budget process faces difficulties such as poor revenue and expenditure forecasting, and the absence of a medium-term budget framework to facilitate multi-year planning. Second, regular audits of government entities are not undertaken. These are needed to enhance transparency and accountability in public financial management. Third, treasury cash management is poor, which sometimes leads to arrears accumulation.

### ***Reform priorities***

**26. Implement the action plan to develop a medium-term budget framework and conduct regular audits of public finances in accordance with good international practice.** Such measures are essential to reform, modernize, and increase transparency and accountability in public financial management. Unify VAT and income tax administration into a large taxpayers' unit, as recommended by the 2013 FAD technical assistance mission (Benon and Koukpaizan, 2013).

## **C. Conclusions**

**27. The investment boom presents both fiscal opportunities and challenges.** It offers an opportunity for high economic growth along with a potential expansion of the domestic revenue base. A key challenge is to tap into the expansion in taxable activity by reforming the overall tax regime, and in particular the investment incentive framework, without discouraging investment. Another challenge is to ensure that investment projects are successfully executed and operated so that they can generate the substantial revenues required to service and reduce the large external debt. Building institutional capacity for public investment as well as fiscal and debt management would be critical to meet these challenges. In the longer term, fiscal consolidation through cuts in investment spending would be essential to enhance fiscal sustainability.

**28. Much would depend on the outcome of investment projects.** The success of the investment projects beyond current projections—which are not well informed because of the dearth of reliable information, including feasibility studies—could be potentially transformative for government finances and the economy.

**29. Reforms are needed in other areas to complement fiscal reform.** The reform of state-owned enterprises is critical because it will reduce the budget contingent liabilities, reduce high production costs especially for electricity and telecommunications, and improve the quality of these services. Improving the business environment is also a priority. Improving skills through training would enable the Djiboutian labor force to take advantage of the employment and income-generation activities created by the investment boom, and pave the way for economic diversification into non-traditional activities.

## References

Benon, Olivier, and Koukpaizan, Vincent de Paul, 2013, "Renforcement de l'Administration de la TVA" Fiscal Affairs Department, IMF, Technical Assistance Report.

De Broeck, Mark, Alvar Kangur, and Roland Kpodar, 2012, "Réforme Du Subventionnement Des Prix Du Carburant" Fiscal Affairs Department, IMF, Technical Assistance Report.

Ménard, Gilbert, 2013), Djibouti : Revue des Régimes Incitatifs, Fiscal Affairs Department, IMF, Aide-Mémoire.



# PUBLIC INVESTMENT, GROWTH, AND DEBT SUSTAINABILITY IN DJIBOUTI<sup>1</sup>

*Djibouti has engaged in many large-investment projects to reinforce its port capacities and to catch-up with some of its infrastructure gaps. The debt financed investment program can bring about higher economic output, but it also exacerbates fiscal and external debt vulnerabilities when the country is already at high risk of debt distress. This note studies the implications of scaling up public investment on debt sustainability and growth when the government is subject to inefficiencies on the spending and revenue side. A baseline scenario, based on the staff report projections, is compared to a high investment scenario. The simulations show that the success of investment projects in terms of sustainability and growth depends largely on improving the efficiency of public management, investment returns and the readiness of the government to raise taxes. In presence of inefficiencies, the high investment profile does not generate significantly higher growth than the baseline scenario and public debt becomes unsustainable.*

## A. Introduction

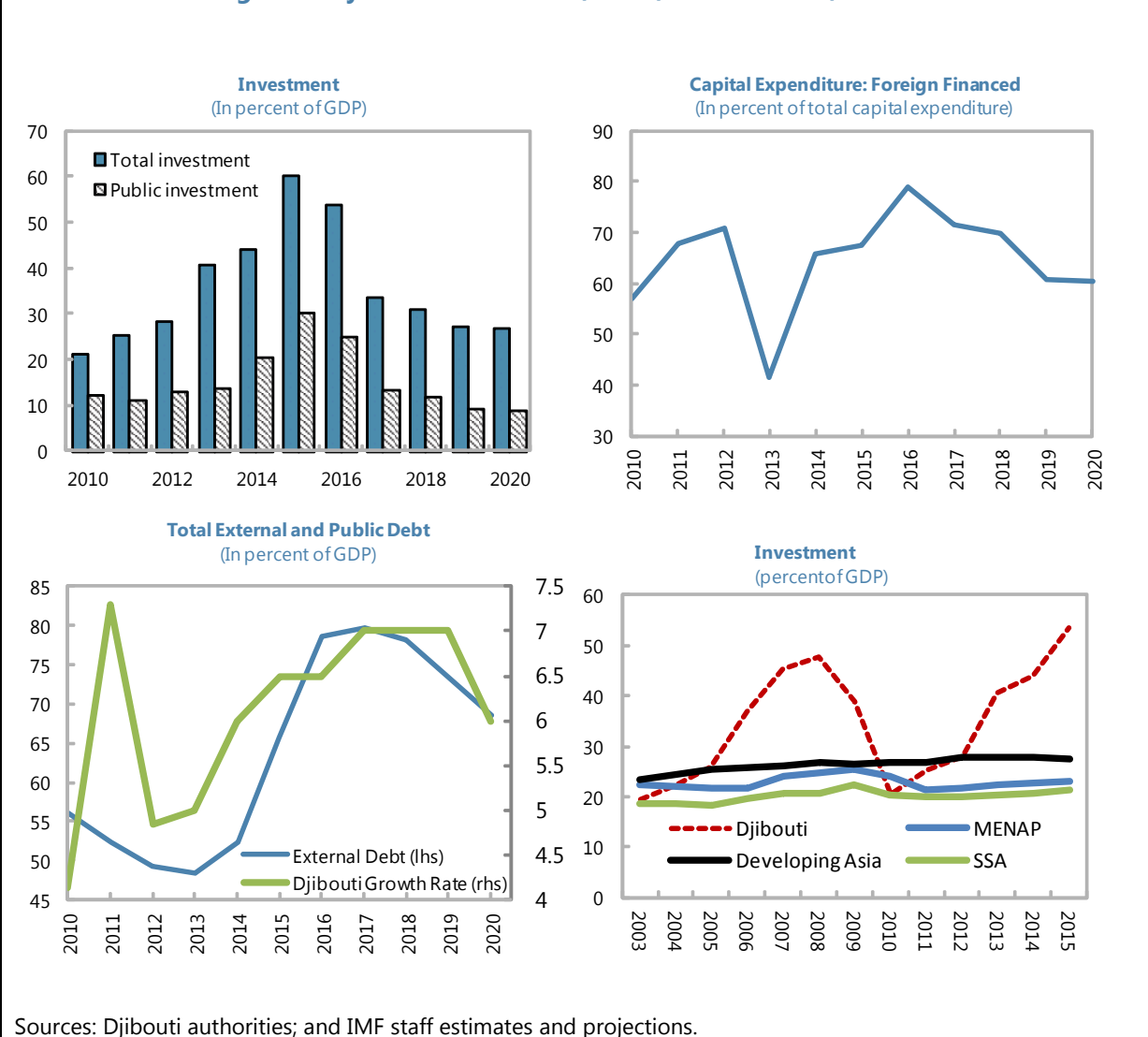
**1. In recent years, debt financed investment has been the main driver of growth and economic activities in Djibouti.** The country has been essentially dependent on the port activities and the transportation sector. Diversifying economic base remains difficult given that the country lacks natural resources and agriculture and industrial sectors are almost non-existent. Consequently authorities have continued to welcome new investment projects for expanding the port and transportation sector. Investment is expected to reach more than 60 percent of GDP in 2015 in contrast to 44 percent a year earlier. Main investment projects include a railway, water pipeline, construction of new ports and expansion of the existing ones.

**2. Djibouti has contracted non-concessional borrowing for public investment,** as have many other African countries in recent years, although most of these countries have lower debt-to-GDP ratios than Djibouti. The main public investment projects are the Djibouti-Addis Ababa Railway with a total cost of \$570 million and the Djibouti-Ethiopia water pipeline with a cost of \$339 million. Both infrastructure projects are externally financed. Authorities consider these projects vital to reduce poverty and unemployment. However, these projects—which are very large investments compared with the small size of the economy—will aggravate the fiscal and debt external debt vulnerabilities when the country is already facing a high risk of debt distress. The fiscal deficit is expected to reach 16.8 percent of GDP in 2015 and the nominal PPG debt is projected to hit 80 percent of GDP in 2017. Strong growth and fiscal reforms are therefore necessary to generate enough resources for the government to service its debt.

---

<sup>1</sup> Prepared by Hamid-Reza Tabarraei.

**Figure 1. Djibouti: Investment, Debt, and Revenue, 2010–20**



**3. The impact of investment projects on growth has not been carefully evaluated and there are questions that these investments can reduce poverty and unemployment.** Many recent projects are capital intensive with little domestic job creation. For the investment program to generate inclusive growth and employment in a sustainable way, the business environment needs to be improved. Reducing the cost of utilities, improving the labor supply skills, promoting financial inclusion, reducing corruption and enhancing the efficiency of the judicial system are among the most important factors to ensure sustainable growth in Djibouti



**4. As in many other low income countries, public investment in Djibouti is subject to capacity and management constraints.** In capital-scarce countries such as Djibouti, public investments are expected to have high returns, but the impact on growth depends crucially on the quality of public management. An IMF study<sup>1</sup> used the World Bank diagnostics on public investment management system, budget survey databases and donors and experts analyses to build a Public Investment Management Index (PIMI). This index measures the efficiency of public investment management process for a number of developing and emerging economies. In the PIMI, Djibouti ranked 50th out of 71 developing countries, of which 40 countries are LICs. As a result, improvements in the public investment management system can pave the way for strong income generation and allow the pursuit of sustainable fiscal and debt paths.

## B. Model Description

**5. The model proposed in Buffie et al (2012) provides a framework to analyze the benefits of higher public investment and higher growth versus its cost in terms of higher public debt.** The goal of the model is to analyze in a comprehensive framework the relationship between the induced growth from higher economic investment and the debt sustainability taking into account the capacity constraints. This is to address two criticisms toward the DSF: First, it does not take into account the relationship between public investment and growth, and second, the DSF does not treat the fiscal policy in a forward-looking framework with the possibility of major correction when the country faces a shock. Indeed, in Djibouti, public projects will take time to repay and meanwhile all the debt thresholds will be breached. But prescribing that the country should abandon its investment plans because of debt sustainability risks depends on absorptive capacity, efficiency of public spending, and the authorities' ability to adjust taxes and spending.

**6. The model provides a stylized representation of a dynamic stochastic general equilibrium small open economy which includes concessionary as well as non-concessionary public debt and multiple taxes and spending. The model's features are as follows:**

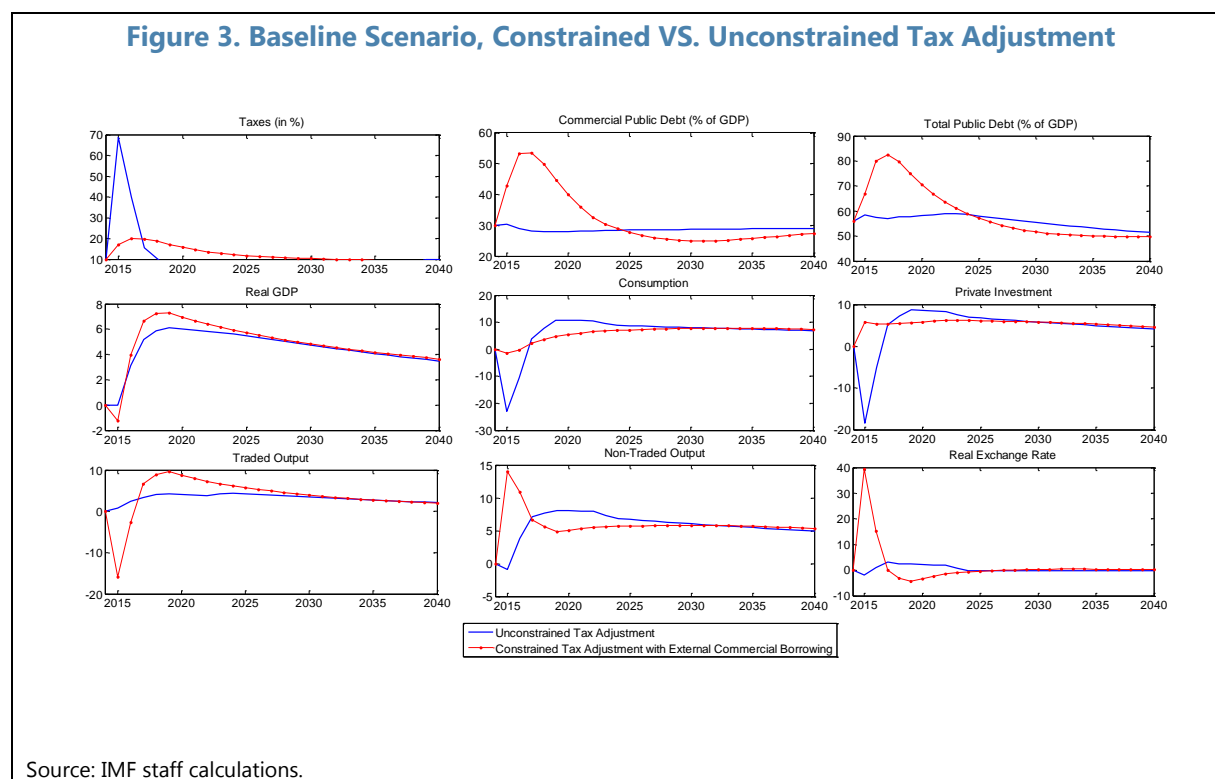
<sup>1</sup> Dabla-Norris et al (2011).

- *Two types of households: savers and non-savers.* Non-savers consume all of their disposable income in each period and are liquidity constrained. Savers have limited access to international capital market with portfolio adjustment cost. The presence of these two types of consumers is necessary in the model to break the Ricardian equivalence.
- *Two production sectors.* The country produces traded as well as non-traded goods according to a Cobb-Douglas production function with labor, private capital and productive infrastructure or public capital as input factors.
- *The public capital formation process is subject to absorptive capacity and government efficiency constrains.* In other words, one dollar of additional public investment does not translate into one dollar of effectively productive infrastructure, i.e. the public investment spending does not increase the stock of productive capital in one-to-one relationship. The PIMI index can be used to calibrate the absorptive capacity parameter.
- *The government finances its current and investment expenditure with taxes and debt.* The government spends on transfers, debt service, infrastructure investment and it collects consumption VAT taxes from households and user fees for infrastructure services which are expressed as a fixed fraction of recurrent cost. Debt sustainability requires that adjustment in the tax and transfer policy covers the fiscal gap. The fiscal gap corresponds to expenditures less revenues and concessional borrowing when taxes and transfers are kept at their initial steady state values. The foreign debt is subject to a premium that depends on the deviation of the stock of the external debt from its steady state value.

## C. Investment Scenarios and Results

**7. The baseline scenario delivers the best outcome in terms of debt sustainability and growth.** The baseline scenario is based on the current projection of the staff report, assuming a high level of public investment over 2015 and 2016 (30 and 25 percent respectively) and it will be anchored at 15 percent, afterward. This path is driven by the authorities' current investment plans and contracted projects and future investment projects with undetermined sources of financing. In the baseline scenario, the efficiency of the public investment and initial gross return on infrastructure investment are supposed at 60 and 30 percent respectively. Two cases are analyzed in the baseline scenario: in the first case, given the public investment surge and the path for concessional borrowing and grants, taxes and transfers adjust continuously to cover the government fiscal gap; in the second case, the government uses external commercial loans to fill its fiscal gap. In the first case, the government's fiscal response to cover the fiscal gap by raising taxes is immediate.

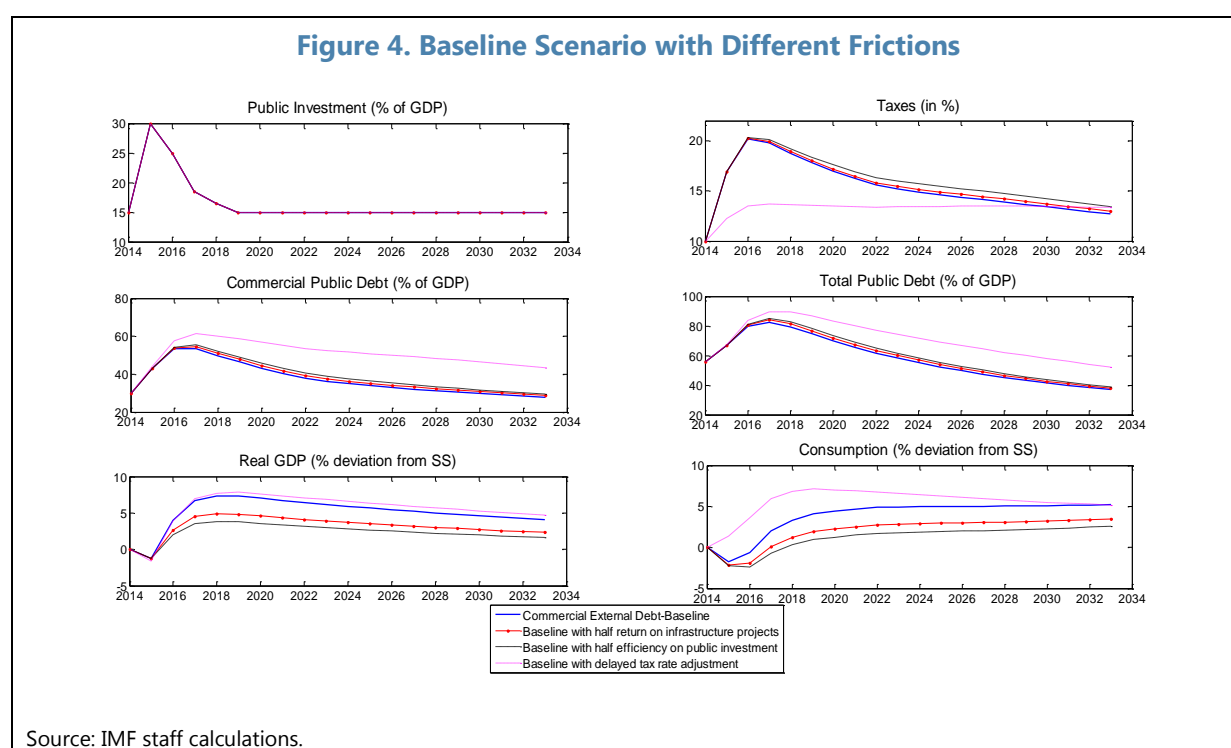
**8. Access to commercial debt market can smooth the transition dynamic associated with the public investment scaling up.** In the absence of external commercial borrowing, as shown in Figure 3, the tax rate should exceed 60 percent to sustain the public investment level at 15 percent of GDP.<sup>2</sup> On the other hand, when commercial borrowings supplement concessional borrowings, it can help with the adjustment. In this case, the tax rate will increase to reach 20 percent and will decline until growth finally generates enough revenue to reconcile repayment of commercial debt.



<sup>2</sup> The path of concessional debt is exogenous in the model.

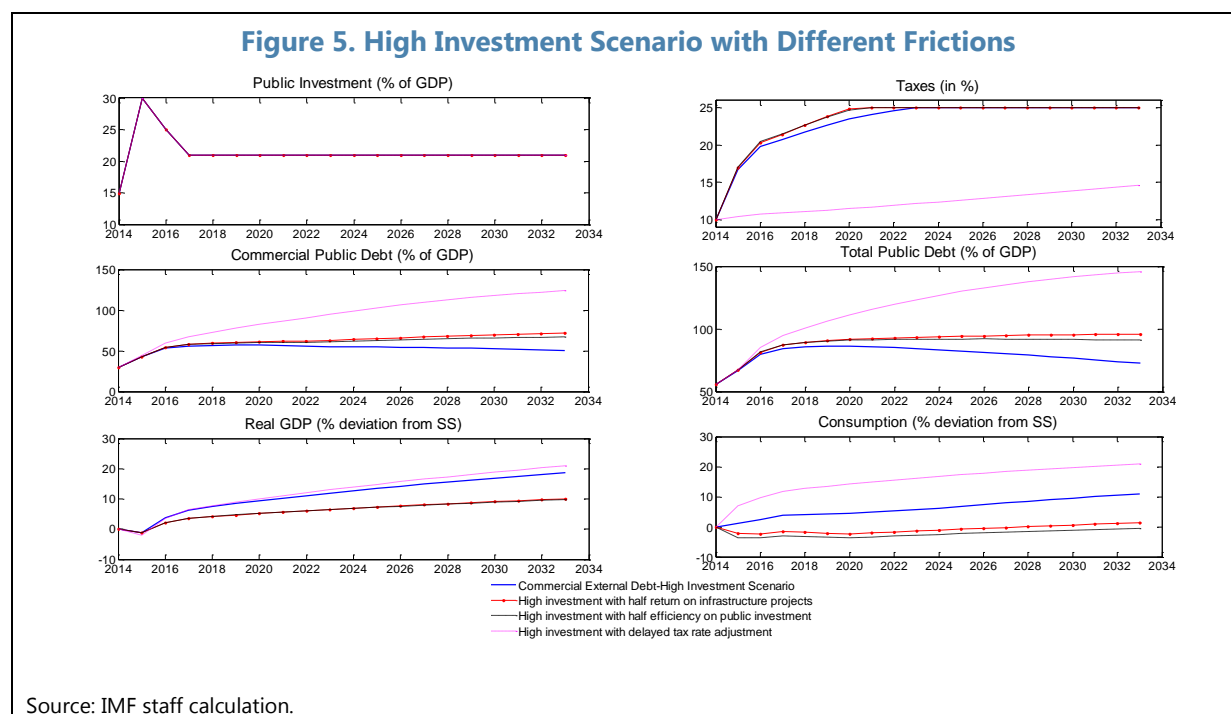
**9. The following simulations compare the baseline scenario (with external commercial borrowing) with a high investment scenario.** Each scenario considers three cases, i.e. investment return, public investment efficiency and tax policy reaction function. The debt profile includes concessional and non-concessional debt profile:

- *High investment scenario* considers the same investment profile as in the baseline scenario until 2017 and afterwards the public investment declines, it remains at a high level of 21 percent of GDP.
- In addition, for each scenario, three alternative cases are also considered. First, the gross return on infrastructure investment drops to two thirds of its initial value; second, the efficiency of public investment is cut by half; and third the government delays in raising the tax rate.



**10. The baseline scenario with low return on infrastructure projects, declining efficiency of public investment or delayed tax adjustment illustrates the danger of a pronounced debt-financed public investment.** In each case, the public debt level exceeds 80 percent of GDP and the high risk of debt distress persists for more than 20 years. In case of delayed fiscal policy adjustment, the growth and consumption do not decline comparing to the baseline, but in turn, the country becomes more indebted and the high level of debt persists for a longer period of time.

**11. The high investment scenario produces limited benefit compared to the baseline scenario while it leads to an unsustainable debt level.** Although the long-run investment level is only a few percentage points higher than the baseline scenario, the public debt becomes very sensitive to the parameters in the model. Under all scenarios, the commercial debt and the public debt embark on an unsustainable path. Again, growth and consumption are not as much hurt as in “low return on infrastructure investment” and “declining public investment efficiency”, but still the debt remains unsustainable. Overall, compared to the baseline scenario, the high investment scenario does not result in higher growth, but it can push the debt on an unsustainable path. Notice that the model did not include public default, but clearly, an explosive path for public debt with low growth rate would lead to default in future.

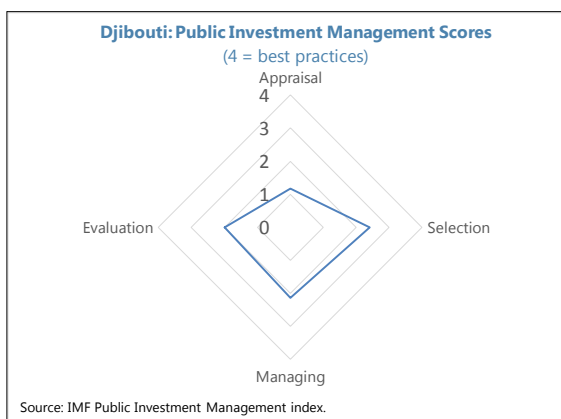


## D. Policy Recommendations

**12. Efficient public management together with public enterprise and structural reforms play an important role in the country’s investment plans.** The contrast in Figures 4 and 5, especially for lower efficiency of public investment and delayed tax rate adjustment, illustrates the gains from enhancement of fiscal policy, business climate and the government’s investment management capacity. In face of higher public investment, a reactive fiscal policy would raise the tax rate and look for new sources of financing to preserve the long-run fiscal sustainability (blue graphs). However, as shown in all simulations, the higher tax levels will suppress private consumption under both baseline and high investment scenarios.

**13. The components of the PIMI index suggest a starting point for further improvement in public investment management.**

Indeed, Djibouti needs to improve in all of four dimensions of PIMI, but comparing to other LICs and emerging countries, the public management suffers the most from appraisal and evaluation of investment projects. A sound public investment management manifests its importance in the wake of an increase in international interest rates given that the two biggest public investment projects' applied interest rates are marked to LIBOR.



**14. Public investment and project appraisal helps ensuring that investments are selected based on development priorities.** Efficient investment requires sound decisions in the selection of projects. Also because of the multi-year nature of investment projects, a medium-term framework that translates fiscal objectives into credible plans for sustainable investment program is necessary. The execution phase can be particularly affected by an inefficient budget execution and weak procurement practices. Last but not least, after the implementation of projects, an ex-post evaluation of projects by general auditors should be reported.



## References

Buffie, Edward F. and others, 2012, "*Public Investment, Growth, and Debt Sustainability: Putting Together the Pieces*," IMF Working Papers 12/144 (Washington: International Monetary Fund).

Melina, Giovanni and others, 2014, "*Debt Sustainability, Public Investment, and Natural Resources in Developing Countries: the DIGNAR Model*," IMF Working Papers 14/50 (Washington: International Monetary Fund).

Ghilardi Matteo; Sola Sergio, 2015, "*Investment Scaling-up and the Role of Government: the Case of Benin*," Working Papers 15/69 (Washington: International Monetary Fund).

# FINANCIAL INCLUSION IN DJIBOUTI<sup>1</sup>

## A. Summary

*The liberalization of Djibouti's banking sector in 2006 led to an increase in the number of banks, as well as to an improvement in the indicators reflecting access to financial services. The level of financial inclusion, however, remains low, as most of the adult population and small and medium-scale enterprises do not have access to financial services. The financial sector is largely dominated by banks, whose business is concentrated with a few economic players. To broaden financial inclusion, in order to promote inclusive growth with a view to reducing poverty, it will be necessary to strengthen financial infrastructure, develop the microfinance sector, and improve economic formalization.*

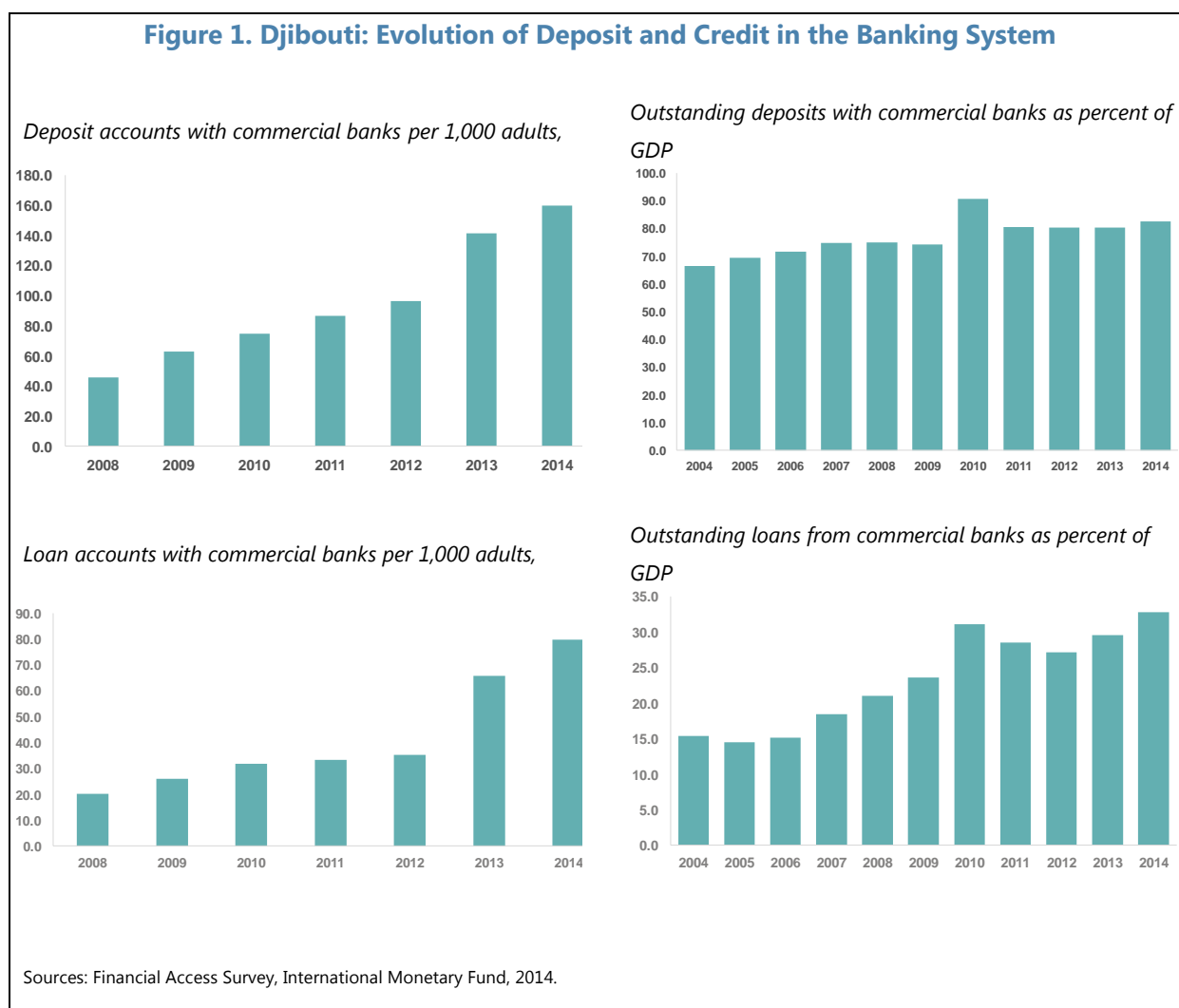
## B. Introduction

**1. Access to financial services is essential for inclusive, more equitable growth to foster significant poverty reduction.** Demirguc and Klapper (2013) found that, without such access, individuals must use their own resources to invest in their education or to become entrepreneurs, and small-scale enterprises must rely on their limited resources to take advantage of growth opportunities, which promotes income inequalities and impedes growth. Beck, Demirguc-Kunt, and Levine (2007) find that financial development leads to a disproportionate increase in revenue in the poorest quintile, and therefore reduces income inequality and increases the efficiency of the capital allocation which in turn boosts total factor productivity. Hannig and Jansen (2010) uphold that financial inclusion can improve financial stability, specifically by diversifying risks as the result of a more efficient allocation of resources.

**2. Despite the rapid expansion of the banking system in recent years, access to financial services remains insufficient in Djibouti.** As a result of the liberalization of the banking system, the number of banks has increased from two in 2006 to ten currently. However, the level of banking penetration remains low. Less than 20 percent of Djibouti adults hold a deposit account with a bank and less than 8 percent have access to a loan account in 2014. Outstanding deposit reached 82 percent of GDP whereas outstanding loans from commercial banks, although increased recently, only reached 32 percent. Only 4 percent of adults could obtain a loan from a formal-sector financial institution in 2011, while 18 percent of adults had obtained credit from their circles of family or friends.<sup>2</sup> Access to credit is one of the main constraints for formal sector enterprises. Only 5 percent of formal-sector enterprises have access to bank financing. Djibouti lags behind many other countries in the region in terms of number of bank accounts, bank branches and ATMs (Figure 1 and Table 1 in the appendix).

<sup>1</sup> Prepared by Hamid-Reza Tabarraei and Boumedienne Taya.

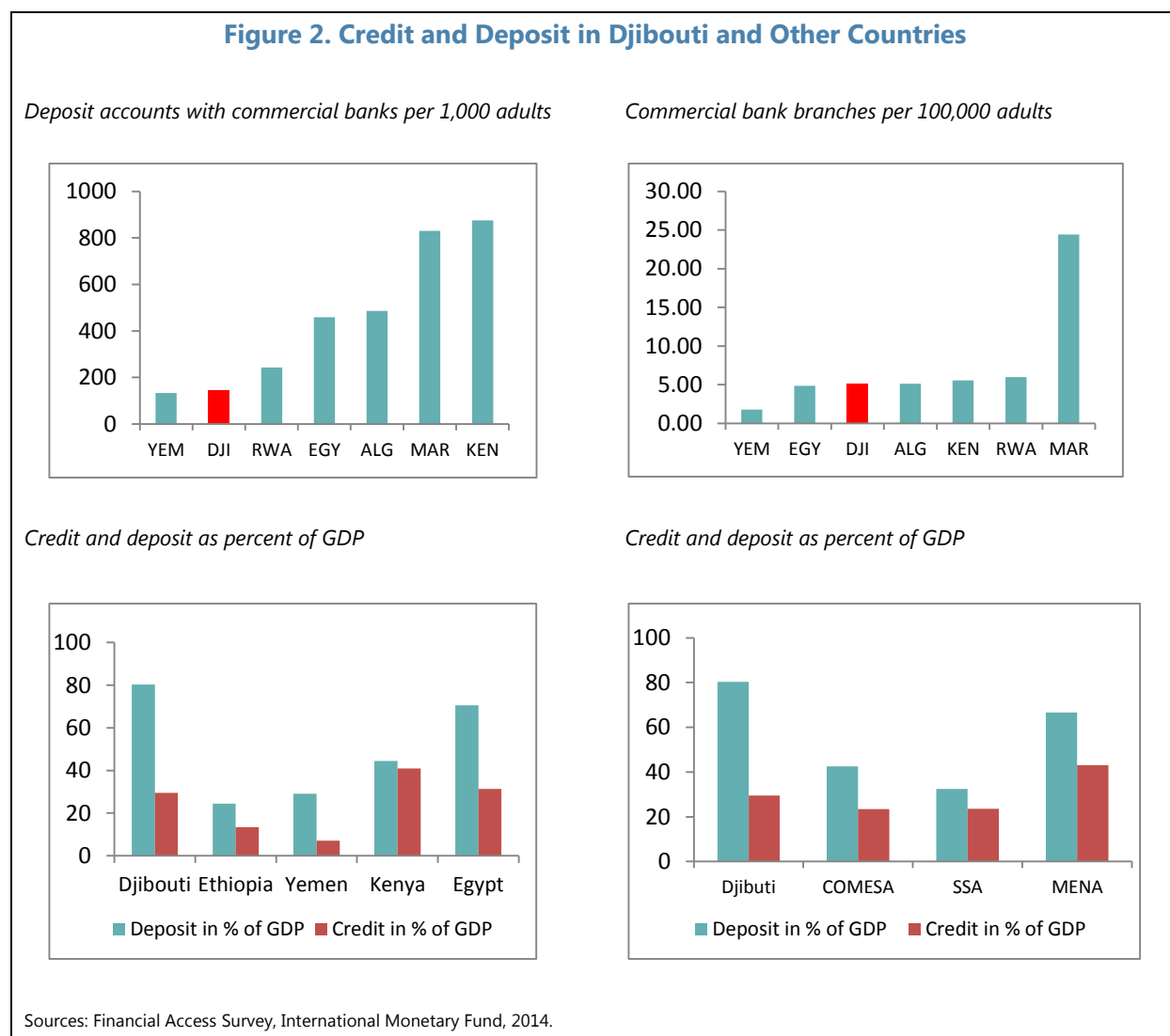
<sup>2</sup> World Bank Global Findex database, 2012.



## C. Credit and Deposit in the Banking System

**3. Despite a high level of liquidity in the banking system, increased competition between banks, and growing demand for credit, access to financial services, and particularly to bank financing, is still limited for most of individuals and small and medium-scale enterprises (SMEs).** The level of bank financing for small and medium-scale enterprises is still quite low, representing only 12 percent of total credit allocated to enterprises. Collateral is required for 84 percent of loans in Djibouti compared to 79 percent in lower middle income countries, and on average 228 percent of the loan value is required as collateral (Figure 4). Certain requirements constrain access to credit, such as the 2 percent fee for the registration of collateral for mortgage loans and another 2 percent fee for the release of collateral. Most SMEs are situated in the informal sector and are excluded, *de facto*, from access to bank credit as they cannot provide banks with the required documentation (administrative, tax, and financial records) or the required collateral. Almost two thirds of an estimated population of 10,000 enterprises in 2010 operates in the informal sector.

Djibouti was ranked 180th out of 189 in the World Bank Doing Business 2015 report in terms of getting credit.

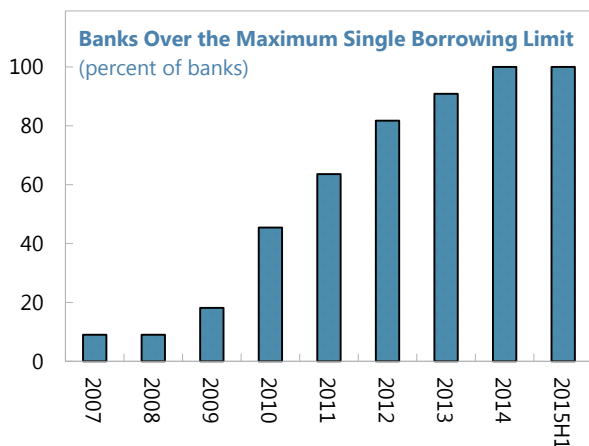


**4. In terms of financial depth, Djibouti compares favorably to countries in the region.**

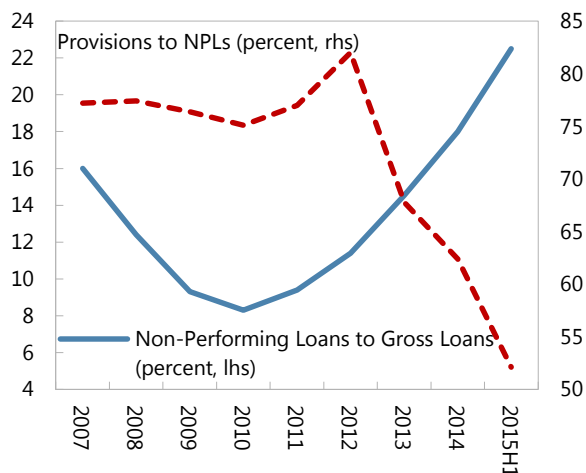
Credit to GDP and deposits to GDP—which amounted to 32 percent and 82 percent respectively in 2014—are rough indicators of financial depth. However, the high levels of credit and deposits to GDP contrast with the low level of financial inclusion, indicating a high level of concentration among a few individuals and enterprises. Indeed as a result of the banking system liberalization, credit to the private sector has significantly increased from DF 33.9 billion in 2007 to DF 90.3 billion in 2014. The high level of concentration among a few clients leads to exceed the single borrowing limit by all banks.

**Figure 3. Djibouti: Bank Loan Concentration and Risks in the Banking System**

*Banks Over the Maximum Single Borrowing Limit  
(percent of banks)*

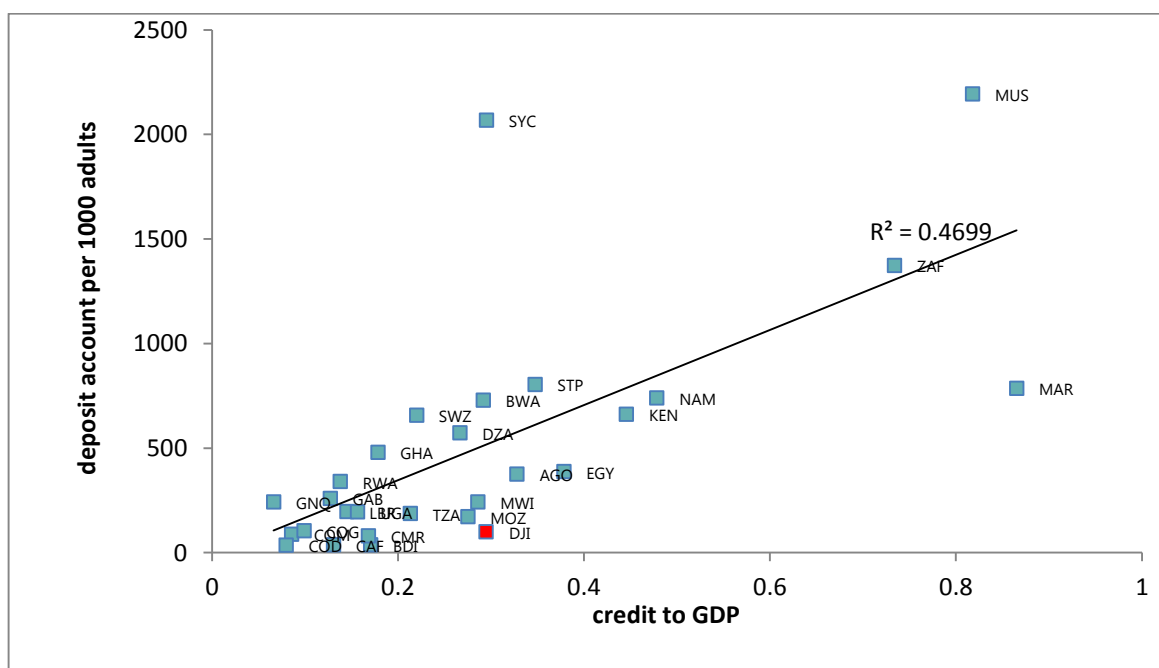


*Increasing risk in the banking sector.*



Sources: Djibouti authorities; and IMF staff estimates.

**Figure 4. Djibouti: Number of Accounts versus Credit**

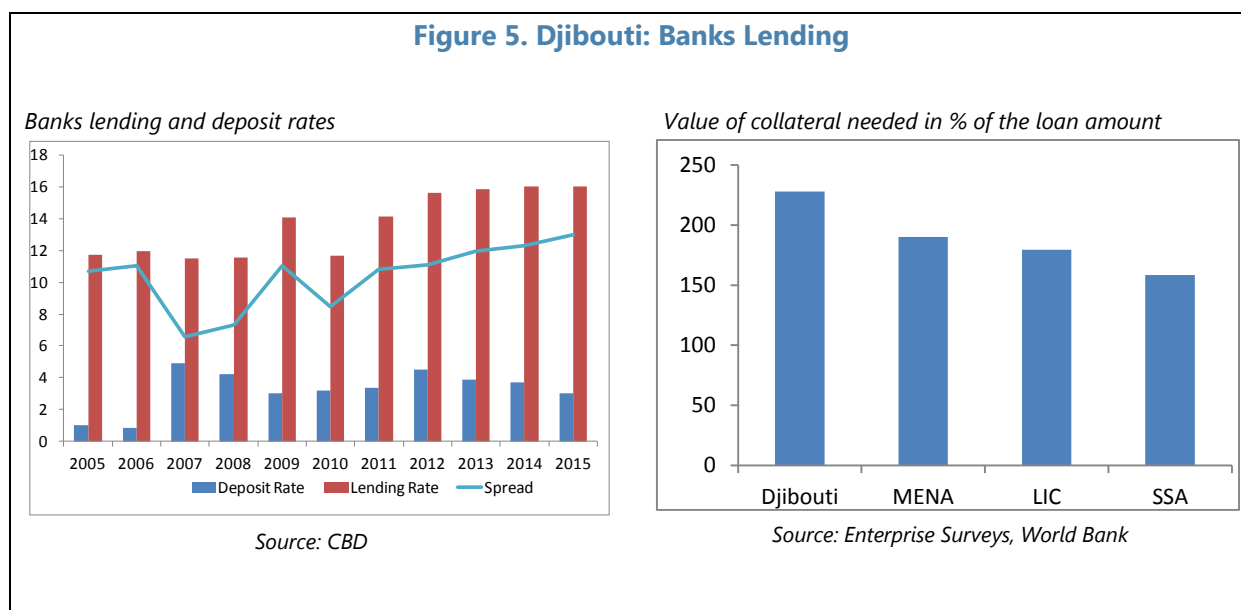


Sources: Financial Access Survey, and IMF Staff Calculation.

## D. Financial Services Constraints in Djibouti

**5. The constraints that limit access to financial services are found on both the supply and demand sides.** On the demand side, obstacles to access are connected primarily to absolute poverty at 22 percent of the population, and to unemployment, which affects around half of the active population. Increased competition among banks has led to easier conditions for opening accounts, even though costs of holding and using accounts are still an obstacle, particularly for the low-income sector. The scope of the informal sector leads to widespread use of cash in transactions and limits the use of banking services.

**6. On the supply side, while the liberalization of the banking system has led to improved financial intermediation, the latter is still fairly limited.** The gap is still substantial between average lending and deposit rates, which are respectively 13 percent and 3 percent. In light of the fairly low levels of inflation and the low cost of funds, the cost of credit substantially reflects banks' risk premium. Banks apply high lending rates and/or require substantial collateral (see graphs) owing to the significant risk of default associated with small and medium-scale enterprises as a result of information asymmetry, deficiencies in the credit reporting system, lack of credit histories, and the absence of reliable financial statements. As mentioned before, Djibouti banks require, on average, 228 percent of the loan application amount in collateral, compared to 190 percent for the MENA and 179 percent for the SSAs.<sup>1</sup>



<sup>1</sup> Enterprise Surveys, World Bank, 2013.

**7. Banks' capacity to grant medium and long-term financing is constrained by the structure of their resources of which 75 percent are short-term deposits.** Two thirds of credit granted by banks is for short-term financing. Moreover, the absence of an interbank market and a lender of last resort require banks to maintain a liquidity surplus to cover their clients' needs and potential losses. Less than 40 percent of the funds collected are re-injected into the economy in the form of credit, and the remaining is generally placed abroad.

**8. The lack of financial infrastructure is another obstacle to access to financial services. The credit information system and payment system are key components of this infrastructure.** The 2009-10 Financial Sector Assessment Program (FSAP) identified substantial deficiencies in Djibouti's financial infrastructure, and recommended that this infrastructure should be strengthened. However, so far progress in this area has been limited.

**9. Djibouti's credit reporting system is comprised of the risk reporting and analysis center and the central register of unpaid checks.** While the CBD manages these two sources of information, their scope suffers from substantial limitations. Similarly, the payment systems dominated by cash is still underdeveloped. The establishment of new banks has made it possible to introduce new financial services and instruments, although their range and scope remain limited.

**10. The financial sector is characterized by a substantial prevalence of banks and insufficient diversification among institutions and financial instruments.** The banking sector is by far the main component of the financial sector, accounting for more than 95 percent of the sector's total assets and 106 percent of GDP. While the sector is dominated by the two largest banks, representing nearly 67 percent of its total assets, the share of these banks is decreasing as a result of competition from new banks. There is no interbank market.

**11. The liberalization of the banking system has promoted the establishment of Islamic banks, targeting customers wishing to comply with *Sharia* laws.** Four Islamic banks were created but the emergence of Islamic banks has not led to a diversified supply of Islamic financial instruments yet.

**12. The microfinance sector has remained undeveloped since its emergence in 2008.** The Caisse Populaire d'Épargne et de Crédit (CPEC) of Djibouti, the main micro-finance institution, has been under receivership by the central bank due to management problems from 2012 to 2015. A development strategy for the sector was prepared and adopted in 2012, although it has yet to be implemented. Despite its problems, membership in the CPEC of Djibouti exceeded 14,000 in 2014, equivalent to 2-3 percent of the country's adult population, although the outstanding balance of credit distributed by the institution is still negligible (less than 0.2 percent of bank credit) owing to insufficient financial resources.

**13. On the other hand, the *Fonds de Développement Économique de Djibouti* (FDED) supports the establishment and development of SMEs, primarily by extending credit. For that end, it has access to several credit facilities granted by donors and guaranteed by the government.** However, its operating scope is still limited by offering loans between DF 3.5-

50 million, and above all by the requirement of joint collateral from a state employee or public enterprise.

**14. Djibouti's tax system is an obstacle for small enterprises intending to operate in the formal sector.** Irrespective of profit level, such enterprises are required to pay a minimum lump-sum tax of DF 120,000 from the first year, which represents approximately 10 percent of the average turnover in small-scale enterprises. In addition, Djibouti's regressive tax system favors large enterprises, as taxes proportion decreases, the larger the enterprise. This situation tends to keep SMEs in the informal sector, limiting their access to bank credit and their development opportunities, while also restricting the expansion of the tax base.

**15. The unreliability of accounting and financial information provided by Djibouti SMEs tends to exacerbate the risk perception by banks.** On the other hand, banks often lack services specialized in SMEs and procedures adapted to the insufficient financial information and insufficient levels of collateral.

## E. Model Description and Calibration Policy

**16. Djibouti faces the same obstacles to financial inclusion as many other developing countries. These obstacles can be grouped into three broad categories:**

- **Access barriers** are reflected in the high administration cost for opening, closing and maintaining an account. Red tape, guarantee requirement, employment and salary requirements, and deposit requisite decrease the demand for financial services.
- **Barriers to financial depth** are generally measured by collateral requirements, credit and deposit ratios, information disclosure requirement and contract reinforcement.
- **Intermediation efficiency** reflects the supply side barriers by competition among financial institutions and the degree of information asymmetry in the credit market. The inefficiency is then reflected in interest rate spreads and banks' overhead costs.

**17. The analysis of financial deepening effect on growth and inequality is based on Dabla-Norris et al (2015) in which a micro-founded general equilibrium model is developed.** The model includes heterogeneous overlapping generation agents which are differentiated from each other by their wealth and talent. Talented and wealthy enough agents choose to become entrepreneurs whereas the non-talented or not-wealthy enough agents remain workers. Two financial regimes are analyzed: in the "saving only" regime, agents can save but cannot borrow. In order for agents in this regime to move to the credit regime, they need to pay a participation cost. Once they are in the credit regime, they are credit constrained by the amount of collateral they can post. The amount of collateral represents the financial depth in the economy. Finally, because of asymmetry of information between lender and borrowers, higher interest rates are charged to cover the monitoring cost and NPL of high leveraged firms.



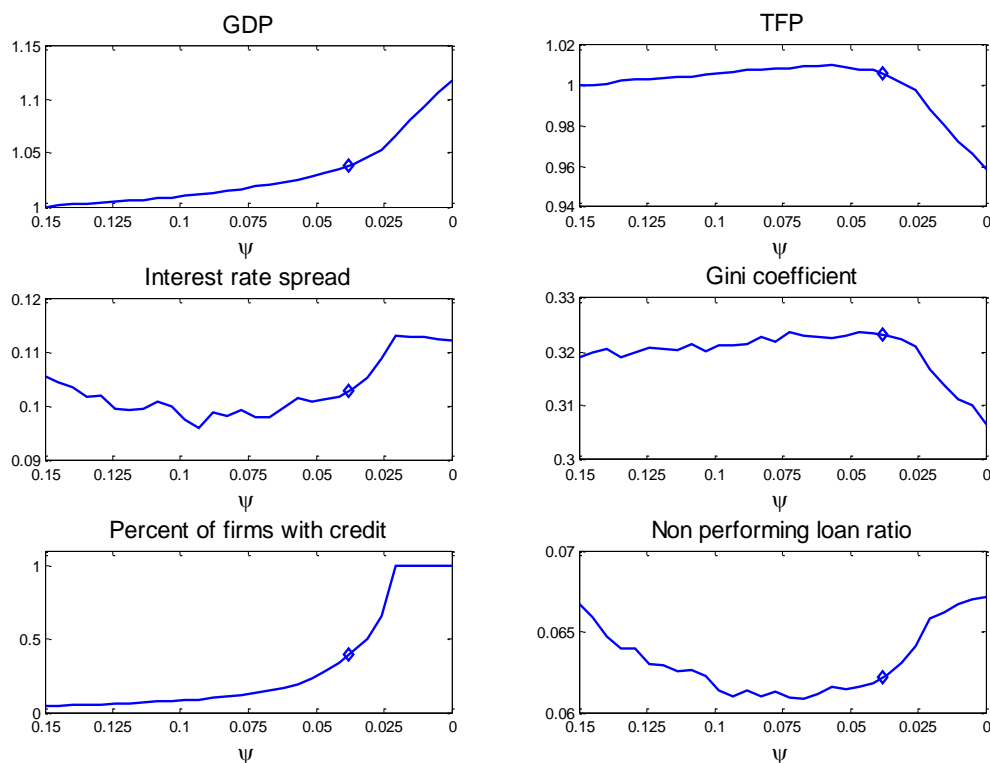
**18. Financial deepening influences economic growth and inequality through many channels.** First, a more developed financial system better channels funds into the economy. Second, the channeled funds reach more productive agents in the economy and, where financial costs are high due to financial frictions, the optimal allocation of resources becomes important. Finally, an efficient allocation of financial resources can boost the total factor productivity and economic output. However, high financial deepening can give access to credit to less productive agents which in turn can decrease the TFP and increase the level of non-performing loans. Inequality in this model can also increase or decrease according to the distribution of talents and initial wealth. Indeed, if credit is only allocated to wealthy talented entrepreneurs, income inequality can rise. Therefore it is important that, by lowering the participation costs, poor agents can benefit from financial inclusion and get the chance to move to the credit regime.

**19. The model is calibrated using Enterprise Survey and other banking data.** The initial wealth for each generation matches the gross saving rate in Djibouti in 2013. Maximum leverage ratio is matched by the median value of collateral divided by loan value using Enterprise Survey (ES). Bank monitoring cost matches the dispersion between interest rate spread and the default rate. This is in fact a wedge between the interest rate spread and the default rate of entrepreneurs because when the monitoring cost is high, the interest rate spread is also high but the default rate is low. Using the ES data, the fixed cost to financial access is estimated by the number of firms with access to credit. The recovery rate after default is determined the judicial system quality and such that there is a positive default rate. The probability that projects fail is also estimated by interest rate spread. Finally, the agents' talents are distributed according to a Pareto distribution where the parameter matches the employment distribution.

**20. The results of simulation suggest that financial deepening can increase the output, decrease the inequality and improve the TFP.**

**21. Reducing participation costs:** The participation cost is reduced from 0.15 to 0. Lower participation cost in Figure 6, has a positive impact on output and percentage of firms with access to credit. The TFP increases first, which results in a drop in the interest rate spreads and a lower level of non-performing loans. This is also a result of the wealth effect: when entrepreneurs become richer and the participation cost is lower, they ask for less credit and tend to deleverage. However, when all firms finally have access to credit, some of non-productive entrepreneurs start to default, which raises both the non-performing loan level and the spread, and decreases the TFP. Inequality follows the same pattern: when only productive agents have access to finance and participation cost in the financial market is still high for non-productive agents, inequality marginally rises but with a full access for all firms, the Gini coefficient rapidly drops. Therefore, access to finance benefits more the poor population, but it generates higher growth even though the TFP can fall.

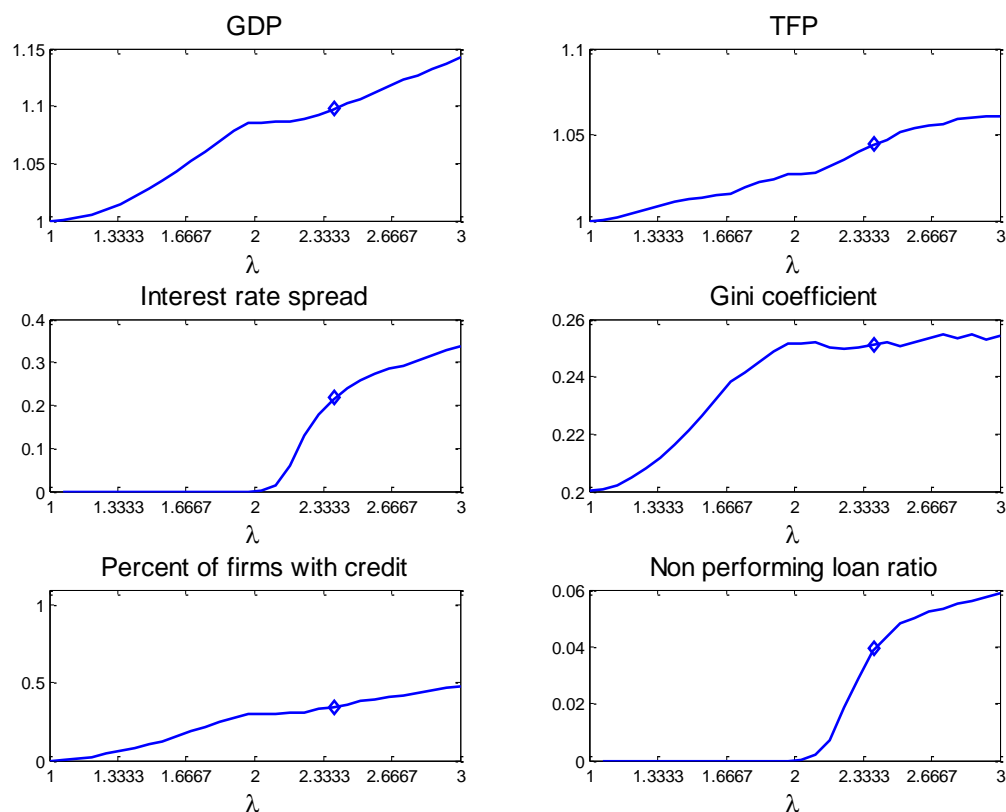
Figure 6. Comparative Statistics: Reducing Participation Costs



Source: IMF Staff Calculations

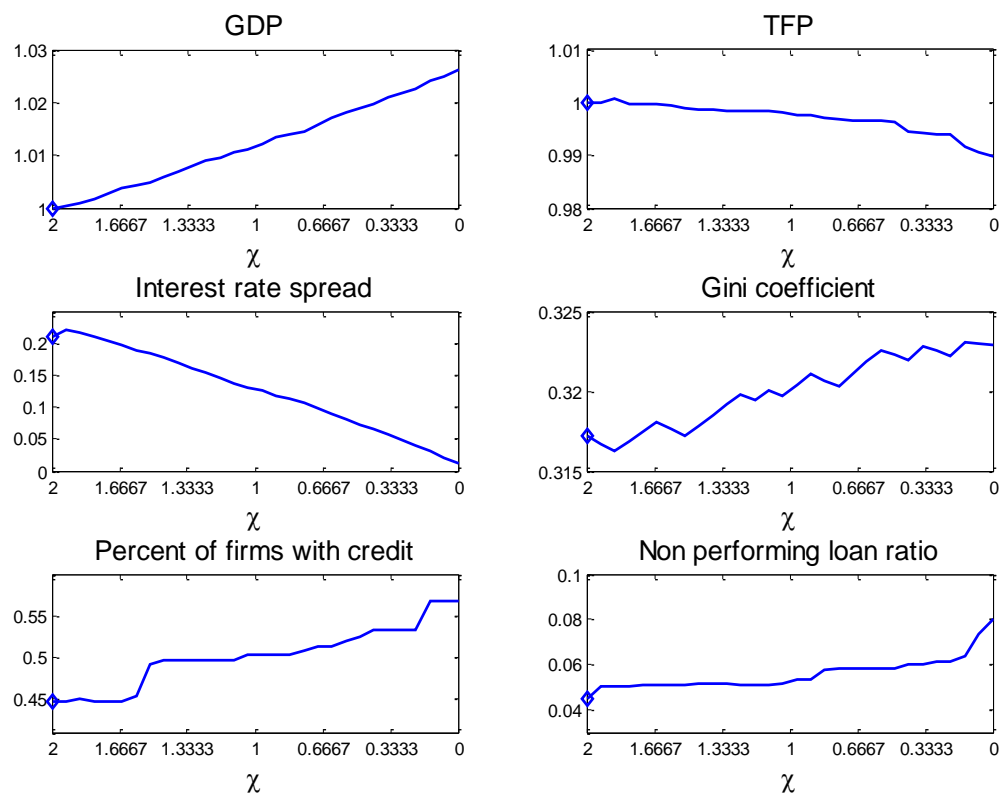
**22. Relaxing borrowing constraints:** Relaxing the borrowing constraint,  $\lambda$ , from 1 to 3 has a positive effect on economic output, productivity and percentage of firms with access to finance. In this exercise, the impact can even be more important than the participation cost effect because although many individuals and firms have loan accounts, they are still subject to credit constraints and cannot borrow from formal financial institutions. But, as the borrowing constraint relaxes, entrepreneurs leverage more which results in a higher interest rate spread and non-performing loans. With higher leverage, the Gini coefficient moves up because talented entrepreneurs leverage more and become richer, but then it stabilizes at certain level since higher spread shrinks entrepreneurs' profit and wealth.

Figure 7. Comparative Statistics: Relaxing Borrowing Constrains



Source: IMF Staff Calculations.

- Increasing intermediation efficiency:** By reducing the monitoring cost,  $\chi$ , i.e., increasing the intermediation efficiency, output grows and the interest rate spread decreases. This, in turn, increases firms' access to finance. However, higher access to finance means that entrepreneurs with a lower productivity can get credit which results in an increase in non-performing loan levels and the decline in the TFP. Two opposing effects are indeed responsible for the decline in the TFP; first, a lower intermediation cost, increases access to finance which boosts entrepreneurs' wealth and profit. Second, the less productive entrepreneurs can default and increase the NPL levels. In this configuration, the second effect dominated since the TFP has declined. These two opposing effects are also responsible for the step increase in the Gini coefficient.

**Figure 8. Comparative Statistics: Increasing Intermediation Efficiency**

Source: IMF staff calculations

## F. Policy Recommendations

Despite the progress Djibouti has recently made in the area of financial inclusion as a result of expansion in the banking sector, most individuals and SMEs still do not have access to financial services, which limits their capacity to take advantage of economic opportunities created by the substantial investments that have been made or that are now in progress. Accordingly, there is a risk that the scope of the reforms aiming to improve the business climate and the economic effects from investments might be inhibited by insufficient access to financial services. To maximize the economic benefits of these investments and promote inclusive growth, a strategy should be prepared and implemented including the following measures:

### 23. Development of financial infrastructure

- *The credit information system should be strengthened.* An effective information system that enables real-time access to information on credit applications reduces risks in connection with information asymmetries between lenders and borrowers, and promotes credit to the private sector.

- *Implementation of the credit guarantee fund for SMEs should be accelerated.* The risk sharing principle of the fund should encourage banks to grant loans to SMEs and promote formalization.
- *Payment system reform is required to promote innovation.* Mobile telephone service, which covers more than half of the adult population, can be used to accelerate financial inclusion by offering financial services more suited to the public's needs at a lower cost than traditional banking services.<sup>1</sup>
- *Diversification of financial instruments should be promoted* through implementation of an adequate framework that supports the emergence of new financial mechanisms such as leasing.

#### **24. Microfinance**

- *Implementation of the microfinance strategy, adopted in 2012, should be accelerated,* and collaboration should be encouraged between banks and microfinance institutions to offset the lack of resources in microfinance institutions, enabling them to obtain refinancing from banks.

#### **25. Formalization of the informal sector and support for SMEs**

- *Tax system reform* should offer incentives to SMEs in the informal sector to move towards the formal sector, in order to give them greater access to financial services, and specifically to bank credit.
- *Facilitated access to property ownership and improved mortgage procedures* can promote access to credit by allowing the use of land as collateral, which would reduce financial risks for banks.

#### **26. Promoting greater access to financial services**

- *Reducing the participation cost in financial markets,* relaxing borrowing constraints and increasing the financial intermediation efficiency could increase growth and reduce inequality. However, as shown in the simulations, different policies can have different impacts in term of growth and inequality.
- *Lowering costs of opening bank accounts and better access to credit* are key elements of a global financial inclusion strategy. A lower participation cost not only has positive impacts on growth, but it can also decrease the interest rate spread and reduce inequality and non-performing loan levels. Relaxing borrowing constraint can increase the economic growth although the financial system would be more exposed to risks. Increasing the intermediation efficiency also boosts the growth and reduces the interest rate spread. In this regard, bank supervision must be strengthened to ensure the stability of the financial system. An extended financial inclusion strategy can make the financial system more stable through risk diversification by reducing credit concentration risks.

---

<sup>1</sup> The World Bank is providing assistance in this area.

## Appendix I. Access to and Use of Financial Services

| Access to & Use of Financial Services                        |        |
|--|--------|
|  | 2014   |
| ATMs per 100,000 adults, Number                              | 7.31   |
| ATMs per 1,000 km <sup>2</sup> , Number                      | 1.86   |
| Commercial bank branches per 100,000 adults, Number          | 5.61   |
| Commercial bank branches per 1,000 km <sup>2</sup> , Number  | 1.42   |
| Deposit accounts with commercial banks per 1,000 adults      | 159.77 |
| Loan accounts with commercial banks per 1,000 adults         | 79.78  |
| Outstanding deposits with commercial banks as percent of GDP | 82.57  |
| Outstanding loans from commercial banks as percent of GDP    | 32.77  |

## References

- T. Beck, A. Demirguc-Kunt, and R. Levine, 2007, Finance, inequality and the poor.
- Dabla-Norris, Era, and others, 2014, "Financial Deepening, Growth, and Inequality: A Structural Framework for Developing Countries," IMF Working Paper (forthcoming) (Washington: International Monetary Fund).
- A. Demirguc-Kunt and L. Klapper, 2012, Financial Inclusion in Africa, Policy Research Working Paper No. 6088, June
- African Development Bank, 2015, Djibouti Country Strategy Paper, 2013-15,.
- International Monetary Fund, 2009, Djibouti Financial system assessment program.
- A. Hannig, and S. Jansen, 2010, Financial Inclusion and Financial Stability: Current Policy Issues, Asian Development Bank Institute, Working Paper No. 259 (December).