International Monetary Fund
African Department

Madagascar
Infrastructure development and the role of the Fund

AmCham Roundtable

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The views expressed in this presentation are those of the author and do not necessarily represent those of the IMF or IMF policy.

Outline

1. Infrastructure needs and Fund programming

2. Fund policy – Macroeconomic aspects

3. Fund policy – Operational aspects

Reference: Baum, A. (2017), “Macroeconomic implications of scaling up public investment in Madagascar”, *Selected Issues Paper,* IMF Country Report 17/224

1. Infrastructure needs and Fund programming

1. Infrastructure investment needs in Madagascar

2. The authorities' plans and donor support

3. The role of the IMF

1.1 Infrastructure gap (1)

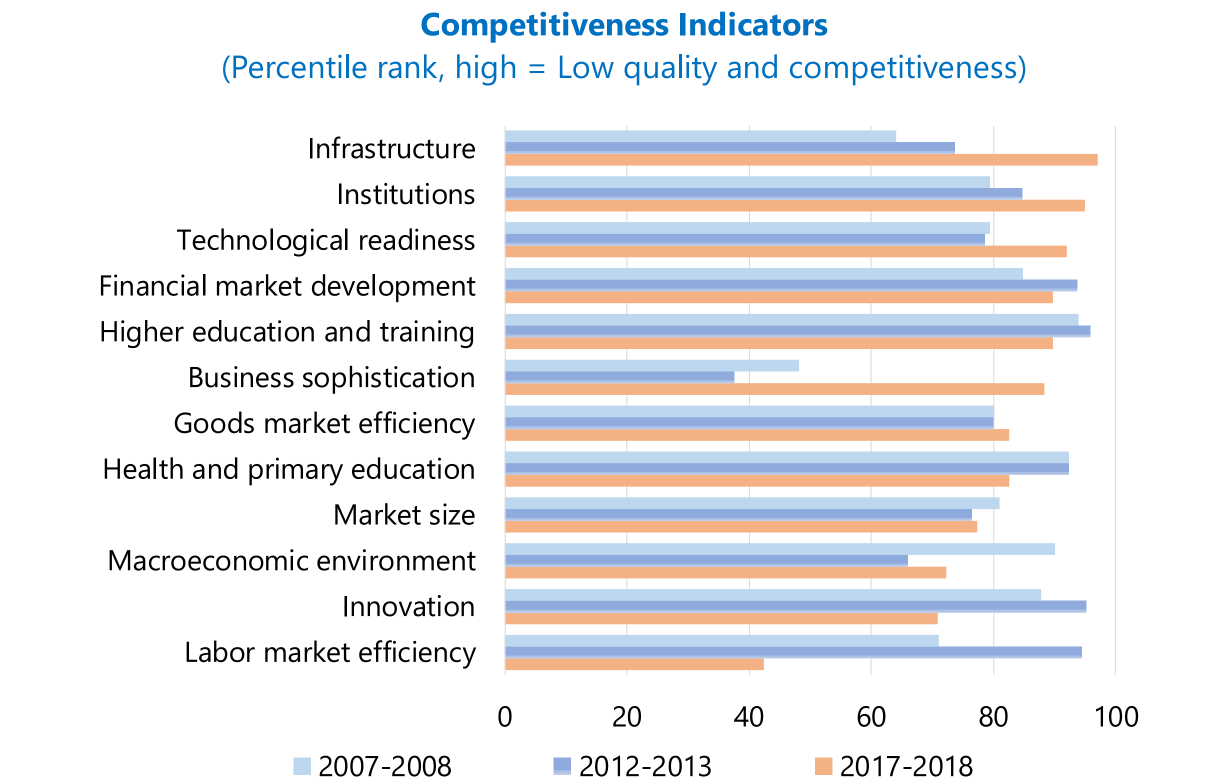
Owing to poor economic management and political instability, Madagascar has accumulated a significant capital shortfall by regional standards.

- Africa Infrastructure Country Diagnostic (WB, 2010): Madagascar infrastructure needs estimated at 40 percent of GPD vs 15 percent for other SSA, i.e. USD 2-3 billion per year

- African Infrastructure Development Index (AIDI, AfDB, 2018): Madagascar infrastructure ranked 38rd out of 45 SSA countries

1.1 Infrastructure gap (2)

Insufficient infrastructure is increasingly weighing on competitivity in Madagascar, ranked 121st out of 137 countries (133rd for road infrastructure, also weak on electricity supply).



Source: The Global Competitiveness Report.

1.2 The authorities' plan and donor support

- The authorities' National Development Plan aims at 35 percent of GDP financing in infrastructure, energy, rural development, health and education over 2017-2022.

- Substantial donor support has started to materialize:
  - Original pledge of USD 6.4 billion (63 percent GDP) at donor conference in December 2016
  - Mostly multilateral: World Bank, European Union, African Development Bank
  - 2/3 project loans and 1/3 project grants – roughly 50 percent for infrastructure
  - Bilateral: Toamasina port extension by JICA, 15 percent total borrowing

1.3 Role of the Fund

- The IMF does not directly engage into sectoral project grants or loans.

- Yet the Fund has been supportive of infrastructure investment in Madagascar by:
  - Ensuring that sufficient *fiscal space* is allocated for domestic investment, and monitoring risks associated to external financing, as part of the ongoing program
  - Helping strengthen *capacities* to enhance the quality of public infrastructure spending, mostly via technical assistance

2. Fund policy – Macroeconomic aspects

1. Creating fiscal space for infrastructure investment
2. Assessing the trade-off between public investment and debt sustainability
3. Monitoring possible Dutch disease developments

2.1 Creating fiscal space for infrastructure investment

- The impact of public infrastructure investment on real growth is expected to be substantial:
  - In the short run: boost to aggregate demand, provided that the economy is not at full employment
  - Long run: increase in capital stock, hence potential growth

- Thus, creating fiscal space for domestic investment has been a core objective of the program supported by the Extended Credit Facility since 2016:
  - Objectives of domestic revenue mobilization: about 12 percent of GDP in 2018
  - Efforts to curtail non-productive spending: transfers to loss-making SOEs and sectors

2.2 Modeling the debt-investment-growth nexus (1) - Hypotheses

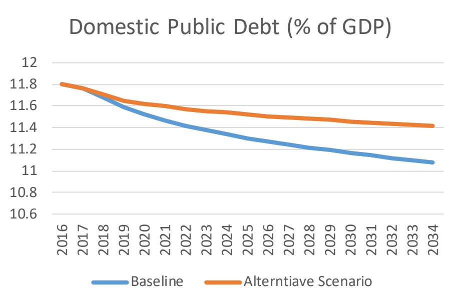
- The *debt sustainability analysis* conducted by the World Bank and the IMF indicates that Madagascar can afford some higher level of indebtedness to finance investment, with debt remaining below 45 percent of GDP.

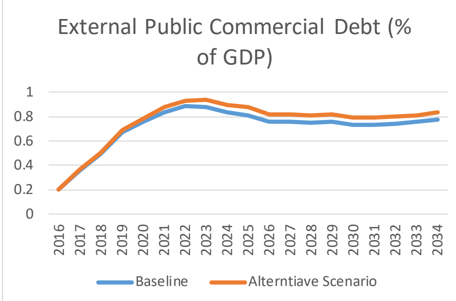
- A debt-investment-growth model (2012) developed at the Fund allows to better model different financing options and varying degrees of investment efficiency.

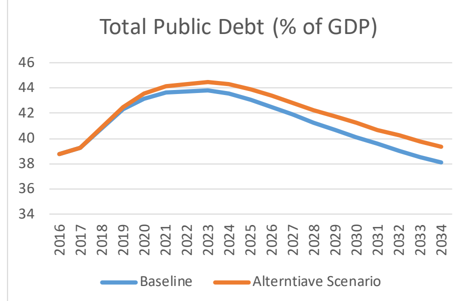
- Calibration for Madagascar: public investment efficiency at 50 percent (i.e. below average) and initial return on infrastructure spending of 30 percent in a baseline scenario; weaker assumptions in an alternative scenario.

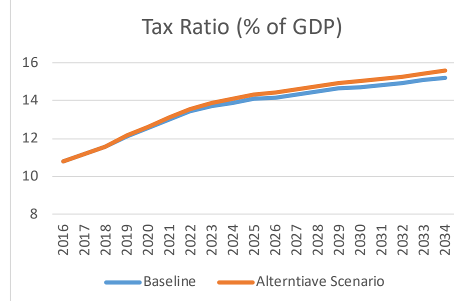
2.2 Modeling the debt investment growth nexus (2) – Simulations

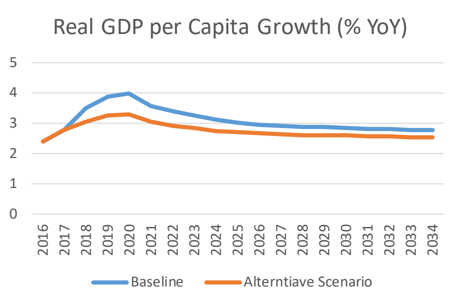
The efficiency of infrastructure investment critically affects long-term macroeconomic payoffs.

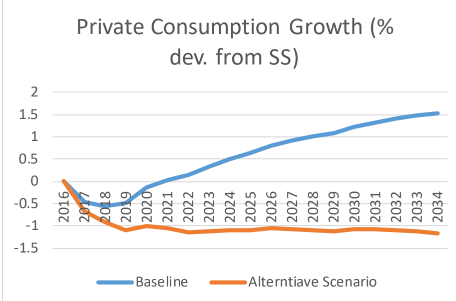


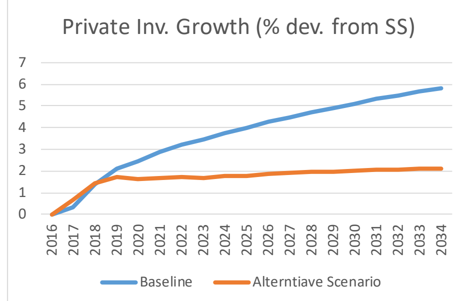


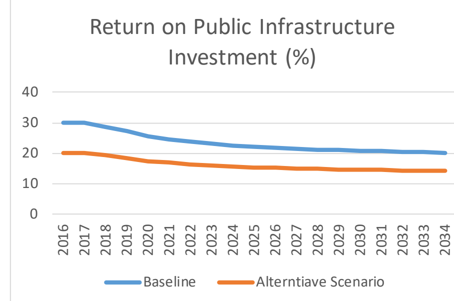


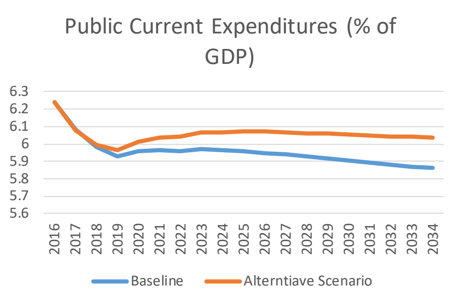


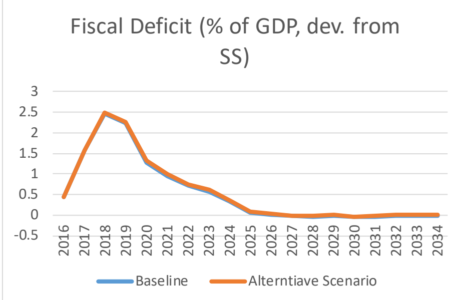


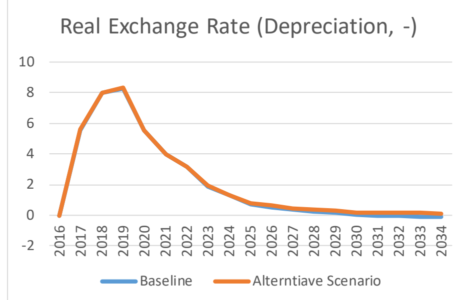


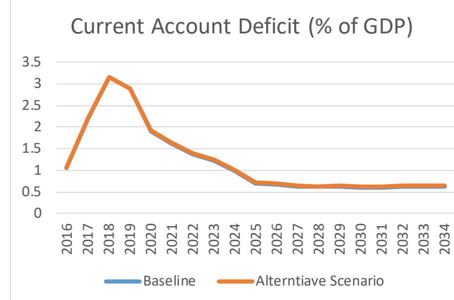












2.3 Monitoring possible Dutch disease developments

- Dutch disease occurs when prices in the non-tradable goods (i.e. domestic) sector increase due to an influx of foreign funds, thus hurting competitiveness:
  - If supply in the construction industry cannot meet the supplementary demand for infrastructure, prices (wages) may rise and resources (labor) shift toward this sector
  - This puts upward pressure on costs throughout the economy, thus eroding the profitability of firms in the export sector, where prices cannot be adjusted

- Risks of such developments are considered limited in the case of Madagascar due to: (i) a large import content of infrastructure spending; (ii) substantial slack in the labor market; (iii) the possibility to absorb some real exchange rate appreciation

3. Fund policy – Operational aspects

1. Strengthening public investment absorption capacity
2. Improving the business environment
3. Carefully designing public private partnerships
4. Monitoring fiscal incentives for investment

3.1 Strengthening public investment absorption capacity (1)

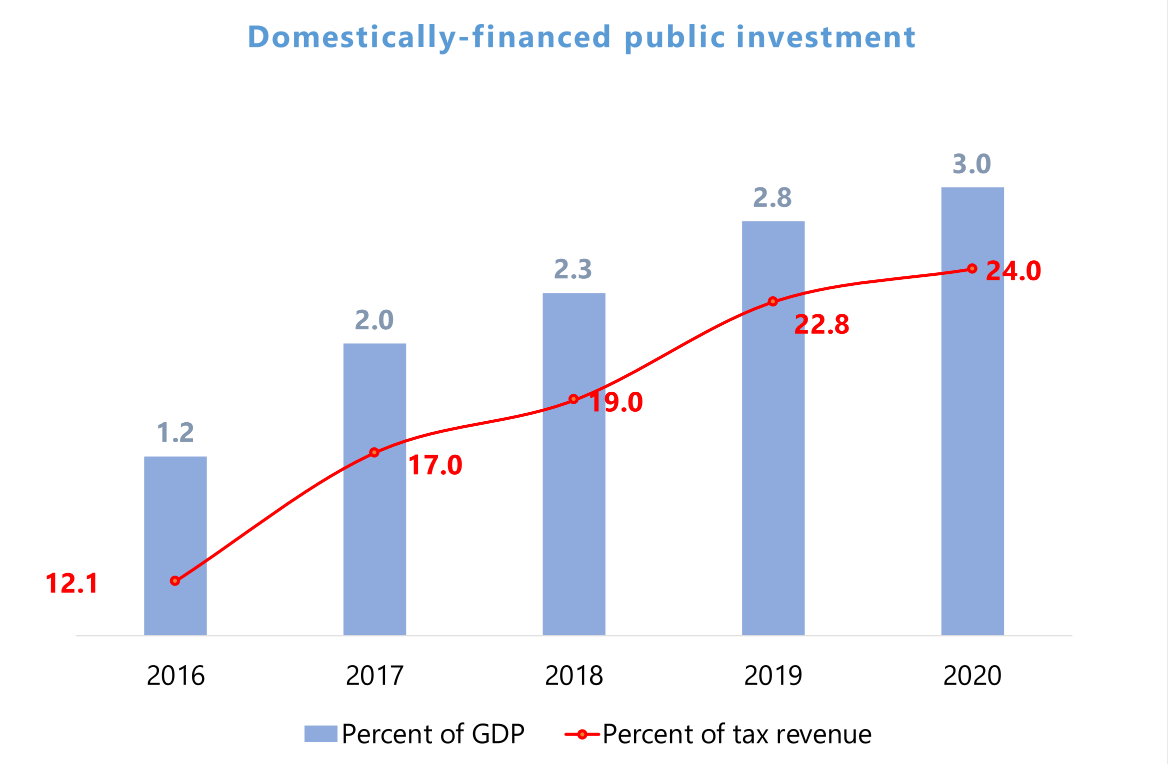
- The positive impact of public infrastructure investment on growth critically depends on *rigorous project selection* and *timely disbursement procedures*

- According to the Public Investment Management Assessment (PIMA) conducted in 2016, Madagascar performs below peers in terms of *multi-year programming*, *project evaluation* (cost-benefit analysis), and *transparency of procurement procedures*

- The authorities have started to address bottlenecks: (i) setup of the Organization for the Coordination and Monitoring of Investments and their Financing (OCSIF); (ii) revision of the Code of Public Procurement; (iii) development of a public investment management strategy; (iv) elaboration of a manual of public investment management

3.1 Strengthening public investment absorption capacity (2)

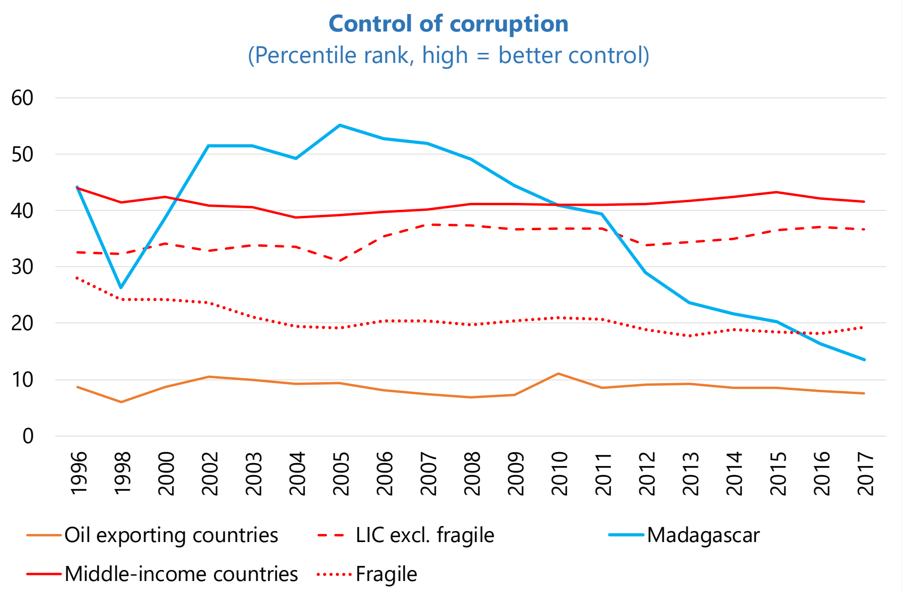
Execution rates for public investment projects are only gradually improving, reflecting protracted weaknesses in absorption capacity.



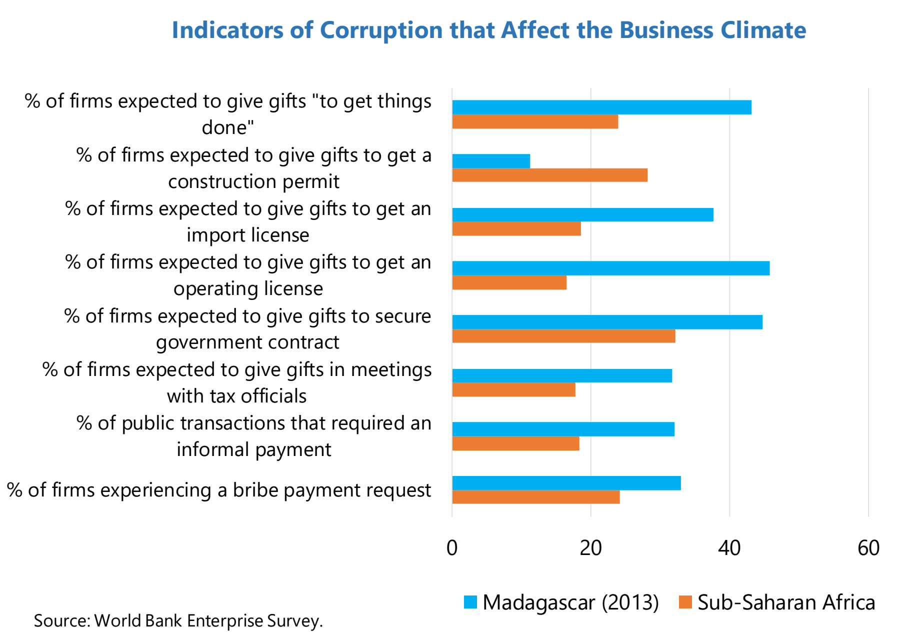
Source: IMF.

3.2 Improving the business climate

The efficiency of public infrastructure spending typically hinges on its capacity to catalyze private investment, which has been severely hampered by widespread corruption – hence the Fund's structural agenda to improve governance.



Source: World Bank, Governance Indicators.



Source: World Bank Enterprise Survey.

3.3 Carefully designing PPP contracts

- Public private partnerships (PPPs) are interesting vehicles to mobilize private financing for the buildup of infrastructure.

- However, fiscal risks posed by PPPs warrant careful contract design and implementation monitoring: explicit government guarantees, contingent liabilities associated with unequal risk-sharing (demand shortfall, technical delays, etc.).

- The Fund has been pushing for rigorous and transparent PPP contracting procedures.

3.4 Assessing fiscal incentives for investment

- Fiscal incentives are commonly put in place worldwide to attract investment, but:
  - They come at a high cost to the public finances: tax expenditures already represent at least 17 percent of revenue in Madagascar
  - Their efficiency has been empirically found to be limited, especially in developing countries: insufficient infrastructure, governance issues, legal uncertainties, etc. are more significant deterrents to FDI.

- The Fund favors a cautious and gradual approach with regard to setting up special economic zones or tax exemption regimes.

Thank you!