BENIN

SELECTED ISSUES

July 2019

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BENIN

SELECTED ISSUES

June 5, 2019

Approved By
The African Department

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CONTENTS

ESTIMATING MEDIUM-TERM GROWTH IN BENIN[1]

A growth-at-risk model is used to compute a distribution of GDP forecasts for Benin. The model predicts growth rates of approximately 6.7 percent for 2019 and a range of 6.4 – 6.8 percent in the medium-term (depending on the specification). Risks to future growth are assessed to be tilted to the downside.

A. Introduction

1.   A growth-at-risk (GaR) model is used to compute a *distribution* of expected GDP growth for Benin. Rather than producing only a point estimate, this method allows estimating the *most likely* projections, such as the median and mode of the distribution, as well as downside and upside risks to growth. Furthermore, by estimating local projections, this method can be used to project both short and medium-term growth.

2.   The GaR method has several advantages. First, the use of quantile regression methods generates a range of elasticities across growth quantiles, which, in turn, produces a *distribution* of GDP growth forecasts. Second, the use of a panel model overcomes the problem of limited data availability for an individual country, by pooling data for a group of countries. Third, the quantile regression approach allows the elasticities to vary across the economic cycle; this means that the impact of the growth determinants will not be the same in economic upturns and downturns.

3.   As with most econometric methods, the backward-looking nature of this approach to forecasting poses some caveats. First, as all econometric models, it bases forecasts on past information and does not capture future policies. This limitation is somewhat addressed in this paper by proposing alternative specifications with additional regressors that incorporate information about the future. Second, the approach assumes that elasticities are constant over time. This means that to the model does not capture possible changes in elasticities resulting from structural breaks over the period considered. Attempts to address this limitation by, for example, allowing for time-varying coefficients or estimating the model on a shorter time sample would reduce significantly the sample size and result in insufficient degrees of freedom to allow precise estimations. However, to the extent that structural changes in the economy affect aggregate GDP growth rates, this is somewhat already captured by allowing elasticities to vary with growth quantiles. Overall, as in most econometric approaches to forecasting, the model assumes that dynamic behaviors observed in the past can be used to predict future dynamics.

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[1] Prepared by Andresa Lagerborg (AFR).

B.   The GaR Model

4.   The GaR model employs a quantile panel local projection method. For each growth quantile (denoted α), it regresses GDP growth in country i at forecast horizon h (denoted $\Delta y_{i,t+h}$), on a country fixed effect[2] (denoted β_i), current period GDP growth (denoted $\Delta y_{i,t}$), current period inflation (denoted $\pi_{i,t}$), and several growth determinants called "risk factors" (denoted $\textbf{\textit{RISK FACTOR}}_{i,t}$). The local projection method (Jordà, 2005) involves varying the forecast horizon h for the left-hand-side variable, while keeping the right-hand-side variables unchanged, thereby estimating a dynamic response of the impact of risk factors on GDP growth at different time horizons. Note that the approach intends to capture the *forecasting effects* of risk factors on the GDP growth distribution, not *causal effects*.[3] The following empirical specification is estimated for forecast horizons $h = 1, 2, \ldots 5$, and a series of quantiles $\alpha = 0.05, 0.10, \ldots, 0.95$:

$$\Delta y_{i,\alpha,t+h} = \beta_i^{(\alpha,h)} + \pmb{\beta_1^{(\alpha,h)}} \pmb{\textit{RISK FACTOR}}_{i,t} + \beta_2^{(\alpha,h)} \Delta y_{i,t} + \beta_3^{(\alpha,h)} \pi_{i,t} + \varepsilon_{i,t}^{(\alpha,h)}$$

5.   Projections for GDP growth for each country, quantile and forecast horizon are obtained as the predicted values of the empirical model, conditioned on information available at time t. The specification also allows for the possibility of incorporating expectations at time t about certain risk factors in the future, by using lead variants of those risk factors (e.g. $\textbf{\textit{RISK FACTOR}}_{i,t+h}$). A smooth distribution for the GDP growth projections is then estimated by fitting the quantile regression estimates to a skewed-t distribution, following Adrian et al (2018). [4]

6.   Lower growth-at-risk estimates indicate higher downside risks to GDP growth. Growth-at-Risk (GaR) is defined as the αth percentile of the distribution of expected real GDP growth as follows:

$$P\left(\Delta y_{i,t+h} < GaR_{i,h}(\alpha|\Omega_t)\right) = \alpha$$

7.   This methodology was applied by Adrian et al (2018) to 22 advanced economies and emerging markets, focusing on risks stemming from financial conditions. In particular, it was developed as a tool for enhancing macro-financial surveillance, by raising awareness regarding risks to growth that may emerge during periods of benign financial conditions, which may set the scene for the accumulation of financial vulnerabilities. The authors find evidence of an intertemporal trade-

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[2] The specification currently includes additive fixed effects. However, given the small number of countries relative to the time horizon of the data when only WAEMU countries are considered in the sample (when estimated for all SSA countries this is not an issue), the analysis could in the future also consider robustness to a specification with non-additive fixed effects and bootstrapped standard errors, as implemented by Adrian et al (2018)

[3] In other words, the risk factors should be thought of as reduced form rather than structural shocks.

[4] To smooth the quantile function, Adrian et al (2018) map the quantile regression estimates into a skewed-t distribution, developed by Azzalini and Capitaion (2003), which offers a flexible yet parametric specification that captures the first four moments: mean, volatility, skewness, and kurtosis.

off whereby higher near-term growth from looser financial conditions comes at a cost of higher downside risk to future growth.[5]

8.   In the Benin case, the empirical analysis produces GDP forecasts focusing on a range of external and domestic risk factors using panel data for WAEMU countries, starting in 1990[6]. In view of a less developed financial sector in Benin and other sub-Saharan African countries, the analysis focuses on other predictors of GDP growth (compared to Adrian et al. 2018) considered relevant to Benin and other WAEMU countries.[7] The following 10 variables are considered as 'risk factors' (impulse responses show the expected signs and are displayed in Figure 4):

a)   **External factors common to all countries:**

- **World trade.** World trade as a percentage of GDP has positive effects on short and medium-term growth. Data, including projections, is obtained from the WEO.

- **Global financial conditions.** Tighter global financial conditions, proxied by the VIX, leads to lower growth in the short and medium term. Data is obtained from Haver Analytics.

- **Trade policy uncertainty.** Trade policy uncertainty, measured by the trade subcomponent of the Economic Policy Uncertainty index for the US, is negatively correlated with growth in the current period, but leads to a rebound in growth in the short/medium run. Data is obtained from Baker et al. (2016 and updated regularly).

- **U.S. consumer sentiment.** The University of Michigan Survey of Consumers produces indices of sentiment about current economic conditions and sentiment regarding expectations about the economy. The former suggests higher growth in the short-term whereas the latter suggests higher growth in the medium term.

b)   **Country-specific external factors:**

- **Commodity terms of trade**. Favorable terms of trade indicate higher growth in the short and medium term. Data, including projections, is obtained from the IMF Commodity Terms of Trade Database.

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[5] Distinguishing between financial variables, they find that: (i) higher domestic price of risk (e.g. asset prices and interest rates) can predict risks at short horizons up to 1 year, (ii) slower-moving credit aggregates are more informative at longer-term horizons, and (iii) global risk sentiment (e.g. VIX) affect downside risks in the short-run whereas for commodity prices and exchange rates effects are less clear.

[6] For some WAEMU countries the sample starts later, depending on data availability.

[7] As a result, the financial sector is less likely a key source of crises.

- **Trade-partner growth.** High trade-partner growth may come at the cost of lower growth in the medium-term, when trade partner growth abates. Data, including projections, is obtained from the GEE.

c) **Domestic factors:**

- **Domestic financial conditions.** Looser domestic financial conditions, proxied by domestic credit as a percentage of GDP, lead to higher growth in the near-term. Data is obtained from the WDI and IFS.

- **Fiscal policy.** General government expenditure growth raises GDP growth in the short-term (and/or fiscal policy is procyclical). Data, including projections, is obtained from the WEO.

- **Exchange rate.** A higher real effective exchange rate signals an overvalued exchange rate that weighs on growth in the short-term. Data is obtained from INS.

C. Results

9.   **GaR estimates suggest 2019 GDP growth averaging approximately 6.7 percent across specifications with downside risks.** The model allows computing the GDP growth distribution's median (with equal probability of growth materializing above and below) and mode (the most likely outcome according to the smoothed distribution). According to the baseline specification, the median and mode estimates for GDP growth in 2019 are estimated at 7.0 percent and 6.8 percent, respectively, conditioned on data as of 2018. In an alternative specification that also includes future information from WEO projections (on trade-partner growth, world trade, commodity terms of trade, and government expenditure), the median estimate falls to 6.2 percent. This number is below the mode of 6.6 percent, suggesting risks to growth are tilted to the downside.

<div align="center">

Table 1. Growth-at-Risk Estimates

	2019	Medium term (2023)
Estimated Medians		
Median	**7.0**	**6.4**
Median (using WEO proj.)	**6.2**	**6.4**
Fitted / smoothed		
Mode	**6.8**	**6.7**
Mode (using WEO proj.)	**6.6**	**6.8**
Average	**6.65**	**6.6**

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10.   **Regarding the medium-term, 2023 GDP growth is estimated to materialize between 6.4 and 6.8 percent (depending on the specifications).** The median of the projected GDP growth

distribution for 2023 is estimated at 6.4 percent, below a mode of 6.7-6.8 percent, suggesting risks to growth are lower but still tilted to the downside in the medium run.[8]

11.   A full density can be plotted, showing downside and upside risks (see Figure 1). Growth-at-risk, defined as growth at the lowest decile, yields 4.7 and 4.9 percent growth (4.3 and 4.8 when using WEO projections) in 2019 and 2023, respectively. This means that there is a 10 percent chance that growth could fall below 4-5 percent in a bad scenario corresponding to the left tail of the distribution. The fact that the growth-at-risk estimates increases with the time horizon suggests that downside risks are expected to abate in the medium run.

12.   Growth projections can be decomposed into contributions from the risk factors (see Figure 2). According to baseline estimates based on current conditions, the fall in projected GDP growth from 7.0 percent in 2019 to 6.4 percent in 2023 is driven by a deterioration in external factors, whereas improvements in domestic factors are expected to contribute positively. However, when expectations about future developments in trade-partner growth, world trade, commodity terms of trade, and government expenditure are taken into account using WEO projections, a more severe deterioration in common external factors such as world trade is offset by improvements in Benin-specific external factors such as trade-partner and average WAEMU growth, resulting in the 0.2 percentage point increase in GDP growth between 2019 and 2023.

13.   GaR growth projections are found to outperform WEO projections in the medium term. In the short run, absolute deviations from actual GDP growth are, on average, lower for WEO projections than for GaR (considering the median). This superior performance of WEO projections holds for Benin's forecasts at one and two periods ahead (see Figure 3) and for the WAEMU as a whole only at one period ahead. Note, however, that the superior performance of WEO projections in the short run is to be expected, since the comparison considers WEO projections made in October, meaning that additional information from January-October will be incorporated in WEO projections.[9] In the medium run (starting already at two periods ahead for WAEMU overall and three periods ahead for Benin), GaR projections for the median are found to outperform the WEO and this superior performance becomes more pronounced for longer forecast horizons (5 years ahead). For the case of Benin and using for comparison the GaR mode (rather than median), again WEO projections perform better in the short run (1 year ahead), whereas GaR projections perform better in the medium run (5 years ahead). These findings add credibility to the growth-at-risk projections.

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[8] Medium-term projections are robust to estimating the model on a shorter time sample starting in 2000, suggesting that structural changes in the economy over the sample period, appear to have limited impact on our results.

[9] Note that WEO forecasts may also include a broader range of information including current and future policies that could play a role in its superior forecasting performance in the short run.

Figure 1. Projected GDP Growth Distributions

Projected GDP Growth Distribution

Source: IMF staff calculations.

Projected GDP Growth Distribution

Source: IMF staff calculations.

Projected GDP Growth Distribution

Source: IMF staff calculations.

Projected GDP Growth Distribution

Source: IMF staff calculations.
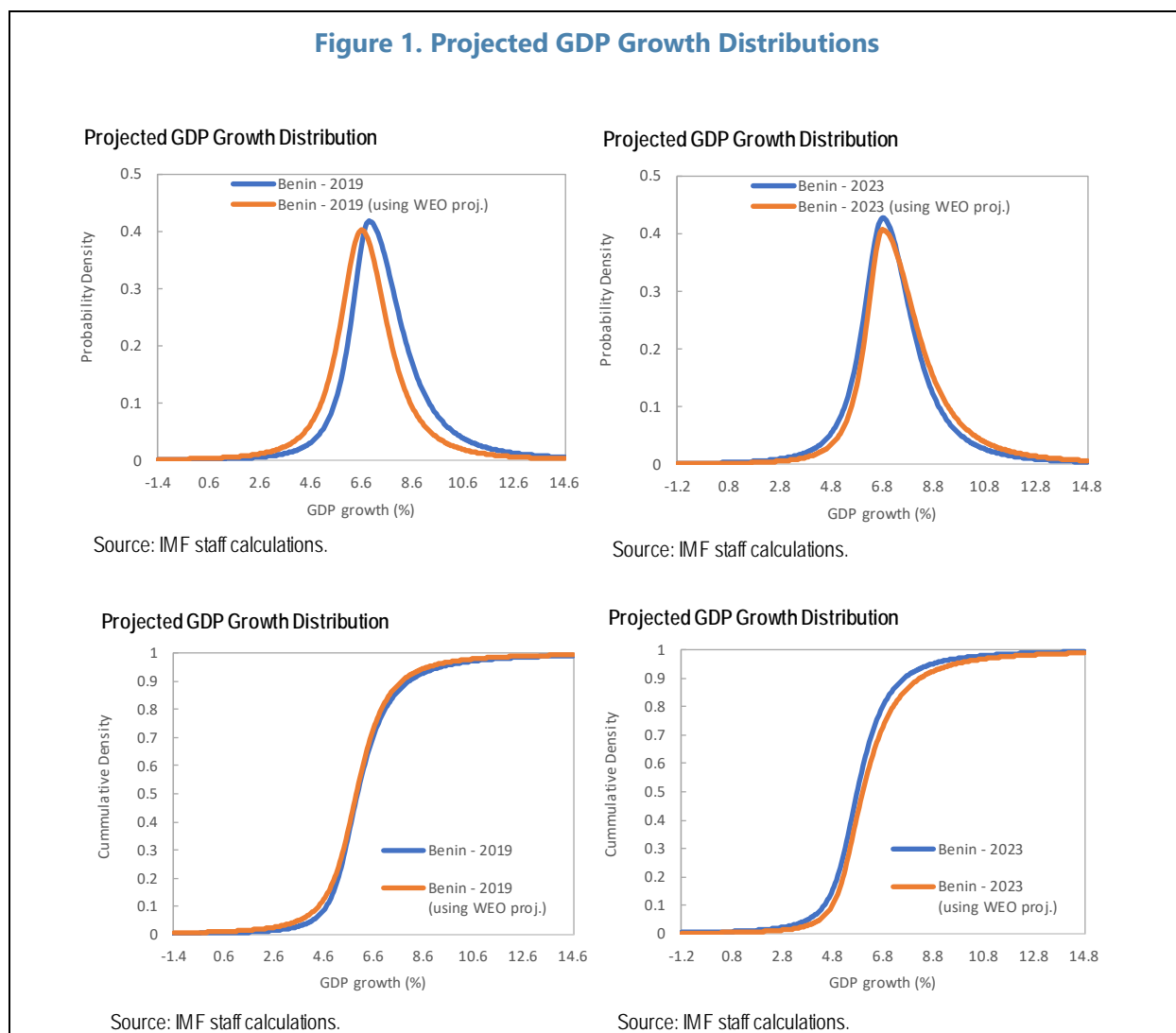
D.   Conclusion

14.   A growth-at-risk model is used to compute distributions of projected GDP growth in the short and medium term for Benin. The method estimates quantile regressions that generate elasticities to risk factors that vary across the economic cycle and draws on panel data for WAEMU countries. The model takes into account external factors (world trade, global financial conditions, trade policy uncertainty, and US consumer sentiment), country-specific exposures to external factors (commodity terms of trade and trade-partner growth), and domestic factors (domestic financial conditions, fiscal policy, and the exchange rate).

15.   2019 GDP growth is estimated around 6.7 percent, on average, across several specifications. The analysis reveals that growth projections estimated both for the median and mode are slightly higher conditioned on 2018 data, yet when expectations about 2019 are taken into account using WEO projections they fall. Overall, risks seem to be tilted to the downside.

16. **Medium term growth is estimated at between 6.4 and 6.8 percent.** Risks to growth remain tilted to the downside, yet less skewed than in the short-term.

Figure 2. Projected Growth Decomposition

Contribution of Factors to Change in Median Projected GDP Growth, 2019-23

- Persistence of growth and inflation
- Domestic factors
- Country-specific external factors
- Common external factors
- Projected GDP growth - median

Figure 3 Relative Forecast Performance: GaR versus WEO

Average Deviations of Projected vs. Actual GDP Growth: Benin, 1990-2018

E.   Impulse Responses

Figure 4 Impulse Responses to Risk Factors – Median Quantile
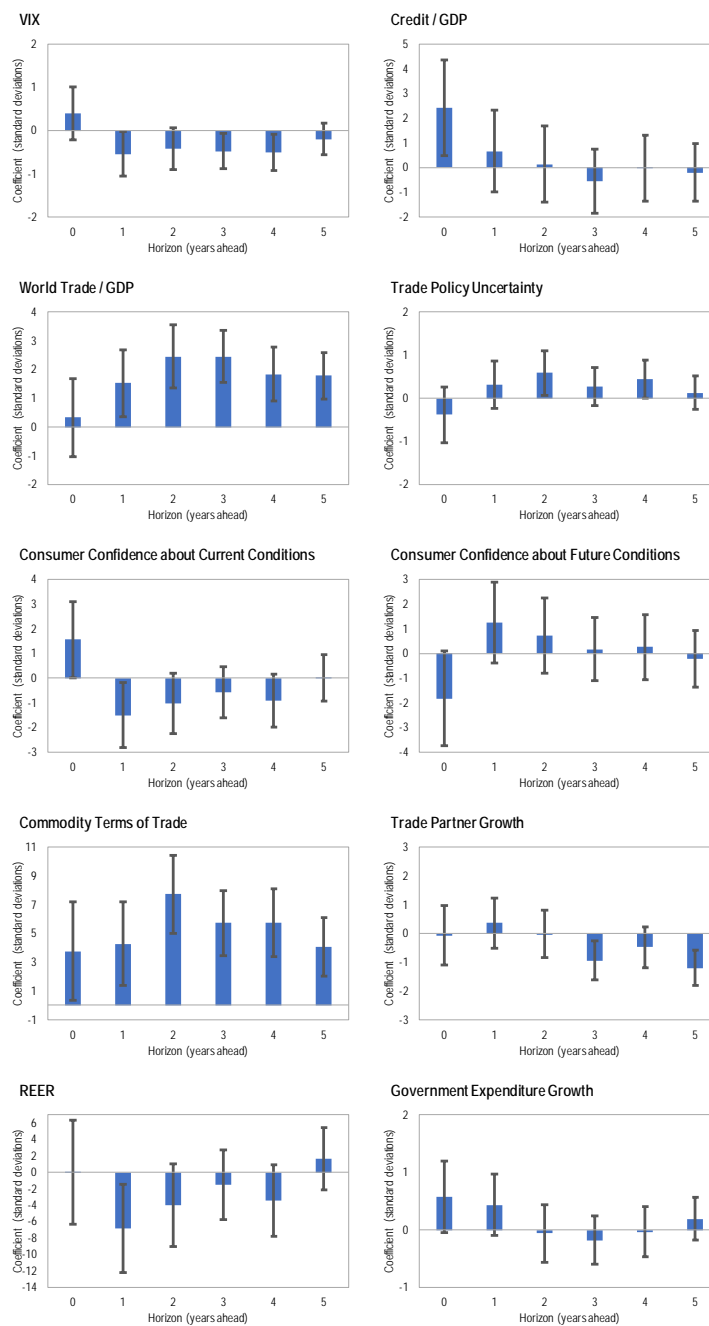
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Adrian, T., F. Grinberg, N. Liang, S. Malik, 2018, "The Term Structure of Growth-at-Risk", *IMF Working Paper* WP/18/180.

Jorda, O., 2005, "Estimation and Inference of Impulse Responses by Local Projections*", American Economic Review*, Vol. 95, No. 1, p. 161-182.

LESSONS ON MANAGING THE TRANSITION FROM PUBLIC TO PRIVATE INVESTMENT LED GROWTH[1]

Many Sub-Saharan African (SSA) countries, including Benin, have scaled up public investment during the last decade. Such a strategy contributed to a build-up of vulnerabilities. Given modest progress on revenue mobilization, the planned fiscal consolidation will result in restraint of public spending, and, in particular, public investment. In this context, sustaining high growth will require an offset by the private sector. The analysis draws lessons from countries that have successfully transitioned from public investment to private investment-led growth using a global sample starting in the mid-1980s. These lessons highlight policies that have been crucial in fostering a rebound of private investment in the wake of a contraction of public investment. These include: infrastructure improvements (notably in transportation, energy, and telecommunication); reforms of the regulatory framework; measures to support financial development; and sectoral policies to support the agriculture and manufacturing sectors. However, other policies, such as tax incentives, may be less relevant in the Beninese context.

A.   Introduction and Methodology

1.   The paper draws lessons from experiences of countries that transitioned from public investment to private investment-led growth. This issue is particularly topical in African countries, and in Benin in particular, where growth prospects are heavily reliant on the ability of the private sector to become the main engine of growth after a decade or so of public investment scaling up.

2.   The analysis presents similarities with the literature on successful fiscal consolidations. This literature shows that, under certain conditions, fiscal consolidation can be growth-friendly and result in economic expansion. To highlight this result, the papers focus on episodes where a lasting and significant contraction in the cyclically-adjusted primary balance (CAPB) is followed by an acceleration of the GDP growth rate. These episodes of "successful" consolidations are generally identified by using ad hoc criteria. Table 1 shows that most papers define a fiscal tightening as an improvement in the CAPB of 1.5 to 3 percent of GDP over a period of 2-3 years leading to an economic recovery over 2-3 years.

3.   Our focus is on the transitions from public to private investment. While the literature on successful fiscal consolidations deals with the tightening of the *total* budget and its impact on *overall* GDP growth, our analysis is narrower and concentrates on public investment-driven consolidation episodes followed by growth-enhancing private investment increases. Data, extracted from the World Economic Outlook database, covers a sample of 162 countries, over the period 1987-2017.

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[1] Prepared by Aissatou Diallo (AFR).

Table 1. Summary of the Expansionary Fiscal Consolidation Literature

References	Magnitude of the Consolidation	Duration of the Consolidation	Test Period to Assess Success [1]
''Budgetary Consolidation in Europe: Quality, Economic Conditions, and Persistence'' (Von Hagen, Hallett and Strauch, 2002)	2.5 percent	2 years	2 years
''Tales of Fiscal Adjustments'' (Alesina and Ardagna, 1998)	3 percent	2 years	2 years
''European Commission Directorate-General for Economic and Financial Affairs'' No 195 December, 2003	3 percent	3 years	2 years
''Public finances in European Monetary Union report in 2007'' European Economy Series N_0 3/ 2007	1.5 percent	3 years	3 years
''Fiscal Adjustments in OECD countries : Composition and Macroeconomic Effects'' (Alesina and Perotti, 1998)	2.5 percent	2 years	3 years
''Large Changes in Fiscal Policy: Taxes vs Spending'' (Alesina and Ardagna, 2009)	1.5 percent	1 year	3 years

Sources: IMF Staff Calculations

1/ Success is defined as stronger economic growth

4. This paper characterizes an episode of "successful transition" from public to private investment according to three main conditions. In our baseline analysis, a successful episode is defined as follows: i) public investment declines by, at least, 2 percent of GDP over three years; ii) such a decline is (more than) compensated by an increase in the private investment ratio over the same period; and iii) the rise in private investment is durable.[2] As shown in Table 1, these conditions are broadly consistent with the thresholds used in the rest of the literature. In addition, a descriptive analysis of global public investment trends confirms that a two percent of GDP decline in public investment over three years characterizes large but not extreme cases of capital expenditure consolidation. Figure 1 illustrates this point with some simple descriptive statics. It shows that an adjustment of the public investment ratio of 0.7 percent of GDP per year (corresponding, on a cumulative basis, to two percent of GDP over three years) is in the second bottom decile of the distribution of all investment adjustments.

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[2] "Durability" is defined as an increase in the private investment ratio (characterized by the second condition) that is prolonged at least during two years after the end of the episode. This means that the private investment pickup is not reversed in the first years following the transition.

Figure 1. Distribution of Annual Changes in Public and Private Investment
(In percent of GDP; global sample; 1987-2017)

Change in Public Investment Ratio: Histogram and Deciles
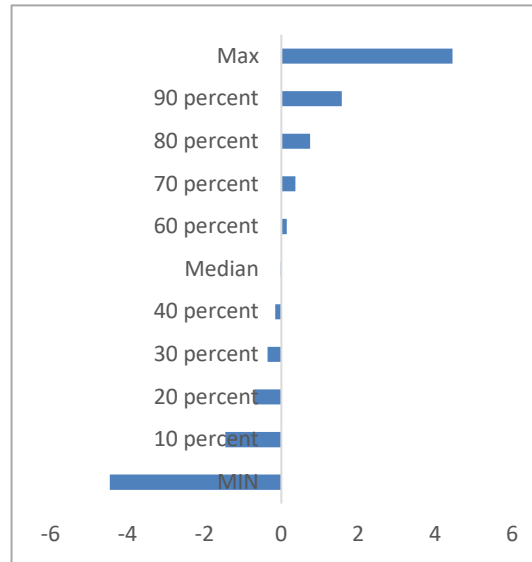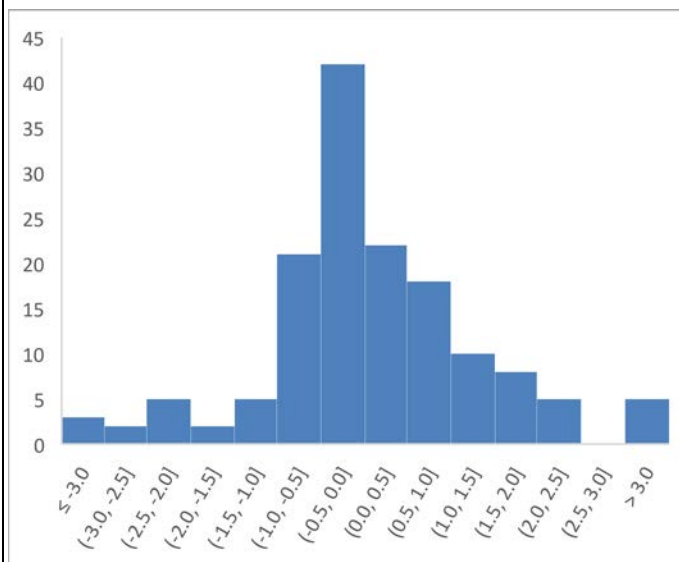
Change in Private Investment Ratio: Histogram and Deciles
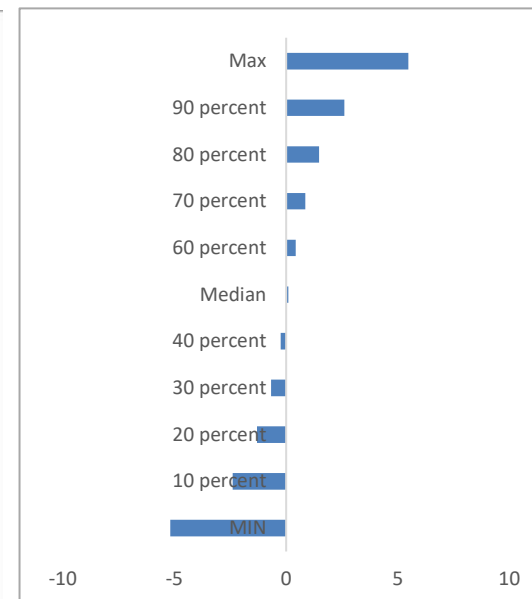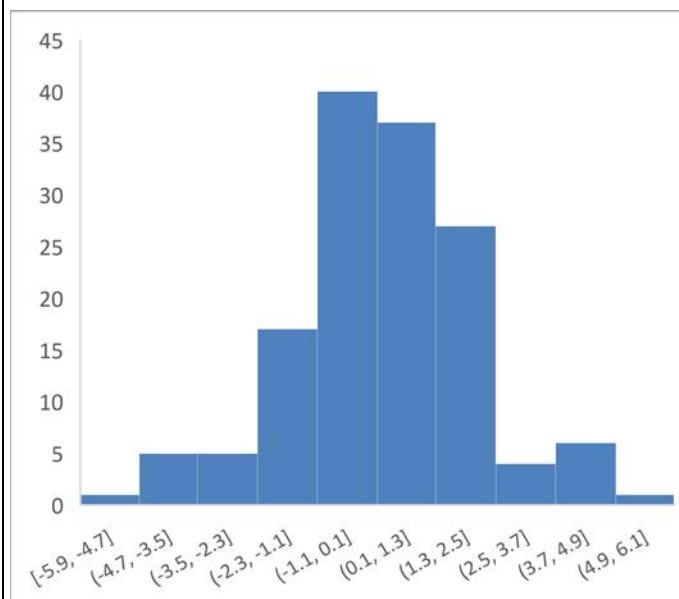
Sources: IMF Staff Calculations.

5. **The three conditions select nine episodes of successful transition**. Table 2 presents the results. The episodes of countries that transitioned from public investment to private investment-led

growth, appear to be spread all over the world, including Asia, Africa, and the Middle-East. Two occurred in the 1980s, two in the 1990s, and the rest since the 2000s.

Table 2. Episodes of Successful Transitions from Public to Private Investment Led Growth			
	Change in Public Investment in percent of GDP	Change in Private Investment in percent of GDP	Change in Total Investment in percent of GDP
Bahrain 2003-05	-3.4	6.0	2.6
China 2004-06	-4.7	5.2	0.4
China 2010-12	-4.5	4.9	0.4
Ethiopia 2013-15	-2.6	4.9	2.3
India 1995-97	-2.6	4.0	1.4
Jordan 1988-90	-4.0	9.5	5.5
Rwanda 2001-03	-3.6	4.1	0.6
Thailand 1987-89	-2.3	7.2	4.9
Turkey 1987-89	-2.4	5.5	3.2

Sources: IMF Staff Calculations

6.   **The selection of the episodes does not change materially when the three conditions are modified at the margin.** We conduct a robustness analysis to ensure that the selection of the episodes is not too sensitive to the calibration of the thresholds. In addition to the baseline, we run four scenarios using alternative criteria (see Table 3 in Annex I). The first two scenarios rely on a longer time period (5 instead of 3 years) and/or larger consolidation of 3 percent of GDP. The last two scenarios are inspired by the literature on expansionary fiscal consolidation and use a shorter period (2 years) and consolidation of 1.5-2 percent of GDP. The main result of this robustness analysis is that the 9 episodes identified in the baseline analysis hold in the alternative scenarios (although these may include additional episodes as well).

7.   **To identify and classify the policies that have supported the boost of private investment, we use the analytical framework proposed by Hausman, Rodrik and Velasco (2005).** This framework distinguishes between policies that lower the *cost* of financing of investment and those that increase its *return*, both total and private (see Figure 2). Another important distinction is between policies that address government failures that penalize entrepreneurship (e.g., doing business reforms; economic stability; governance improvement) and those that address market failures[3] (e.g., creation of new sophisticated economic activities through the creation of clusters). Table 4 (in Annex I) summarizes the main policies at play in each episode.

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[3] Market failures hinder private investment, even when the government does not distort private incentives.

Figure 2. Typology of Policies Supporting Private Investment

Sources: IMF Staff. Adapted from Hausmann, Rodrik, and Velasco (2005).
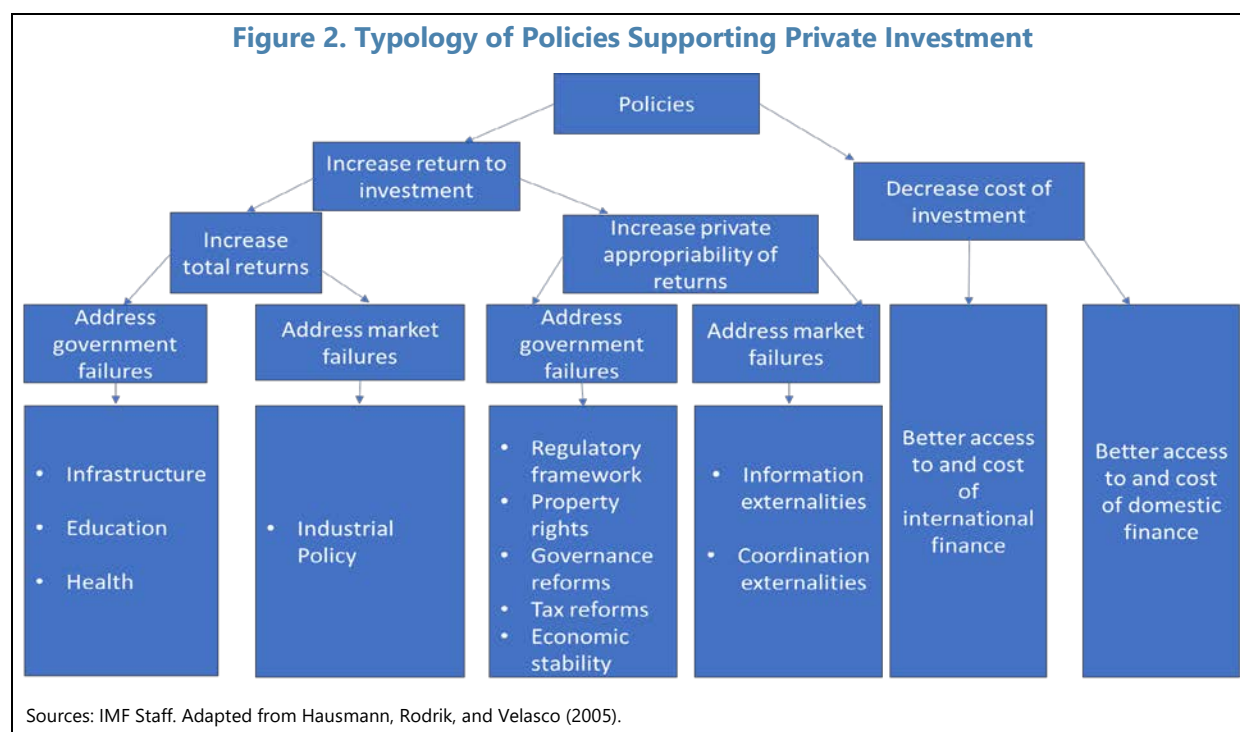
B. Lesson 1: Improve the Quality of Physical Infrastructure

8.   Successful transition from public to private investment are often preceded by infrastructure improvement plans. Transportation, communication, sewage, water and electric systems tend to be high-cost investments; however, they are vital to businesses because they impact significantly the return to private investment.

- *International experiences*. During the early 2000s, China has made significant efforts to improve its infrastructure in the interior provinces, and also the urban environment, including water supply/wastewater treatment, air pollution. Such strategy participated in attracting FDIs and boosting private sector investment (IMF, 2004). In the early 2010s, Ethiopia increased investment in various infrastructure development projects in power generation, telecom, transportation, especially the Ethio-Djibouti railways and other logistical services which helped reduce production costs for the private sector and enhance overall productivity and competitiveness. Finally, in Rwanda the Transport Sector Project implemented in early 2000s helped improve road maintenance ability and promote private sector activity.

- *Application to Benin*. Inadequate supply of infrastructure, in particular regarding access to electricity, is one of the most problematic factors for doing business in Benin (World Bank, 2018). Thus, improving the quality of electric systems, transportation and communication is key to attract private investment. Also, Benin performs below its peers (WAEMU and SSA countries) in terms of efficiency of capital expenditure. According to the IMF database of investment efficiency, Benin recorded a score of 0.5 in 2015 against 0.65 for WAEMU countries and 0.64 for SSA countries (IMF, 2017a). By improving the efficiency of its capital expenditure, Benin could

improve significantly its quality without increasing substantially the amount devoted. Finally, about 60 percent of the Government Action Plan projects are expected to be financed by the private sector, mainly in the forms of PPPs (IMF, 2017b). If PPPs are properly reflected in fiscal accounts, and their fiscal risks assessed, authorities could improve the quality and access to infrastructure without jeopardizing public finance sustainability.

C. Lesson 2: Implement Reforms of the Regulatory and Governance Framework

9.   Governance reforms in the public sector—in particular the judiciary system and audit bodies—are also key to improving the business environment. The perception of weak governance and corruption in the public sector can repel private investors' appetite, since it represents a threat on the appropriability of their profits. Businesses do not get started, thrive and expand where the state does not provide sound regulation, market-supporting laws that are implemented fairly by honest and well-trained judges and a transparent procurement system (EBRD, 2019).

- *International experiences*. In 2002, Bahrain established an independent Public Audit Office, outside the jurisdiction of the ministry of finance and national economy, with the aim of sending a signal in the fight against poor governance. Such policy has been efficient in attracting private investors, as it reduced the risk to private appropriability of returns. Likewise, in Rwanda, the Office of the Auditor General was strengthened in 2001. This measure enhanced the private investors' perception of good public governance and gave a stronger sense of security regarding to their investments.

- *Application to Benin*. Benin has improved its governance framework in recent years, although gaps remain between the framework and its effective implementation (see Selected Issues Paper below on the "Review of the Beninese Governance Framework"). Benin scored 40 points out of 100, on Transparency International's 2018 Corruption Perception Index, which is an improvement compared to 2016 and 2017. The perception on the ground is that governance needs to be strengthened further and the judiciary made more independent to effectively fight corruption. Further efforts to reform audit institutions, improve transparency, and foster accountability are needed (IMF, 2018). Among the needed reforms, the strengthening of internal and external audit institutions and the follow-up of their findings and recommendations could foster transparency in the public sector and decrease the risk of low appropriability of returns.

10.   Regulatory reforms that simplify business procedures tend to encourage private investment. Burdensome procedures reduce the attractiveness of a country in terms of doing business, because it increases significantly the time and cost necessary to set up a start-up or run an already-established business.

- *International experiences*. In Ethiopia, the Industrial Park Development Corporation was set up in 2014 with the responsibility of facilitating and removing bureaucratic bottlenecks that hinder production and capacity of both export and import substitution industries. It has played a role in

improvement of the competitiveness of the country (WEF, 2014 and 2015). Likewise, the implementation by Bahrain, in 2003 of reforms aiming at easing access to capital for Small and Medium Enterprises and simplifying procedures for setting up new businesses has contributed to the continuous improvement of the country's performance in terms of doing business (World Bank, 2018).

- *Application to Benin*. The 2017-18 World Economic Forum's *Global Competitiveness Report* ranks Benin in the bottom 20 percent countries. Burdensome procedures are listed as an impediment to setting-up businesses in the country. Reducing bureaucratic inefficiencies could help spur private sector activity. The Beninese authorities are committed to addressing these bottlenecks to growth. Two private investment facilitation bills are currently discussed at Parliament: the first one revises the code of investment and the second one deals with the promotion and development of micro, small and medium enterprises.

D. Lesson 3: Promote Actively Financial Development

11.   The implementation of banking reforms, including those pertaining to corporate governance and resolution of Non-Performing Loans (NPLs), seem to have made a big difference in the reviewed cases. A sound banking system is vital to the development of the private sector, because, it lowers the financing cost of projects, while facilitating innovation and new ventures.

- *International experiences*. In the mid-2000s, the Chinese authorities made substantial efforts in creating sound domestic banks that are able to adequately compete in the global financial system (IMF, 2004). Following the recapitalization of some large ailing state banks, and resolution of NPLs, the authorities set up time-bound action plans and held bank management strictly accountable for the timely implementation of these plans. They promoted the use external auditors to assess the true underlying financial position of the banks; and enhanced external oversight of the banks' operations, including taking prompt action in the event that the capital base is threatened. The China Banking Regulatory Commission established in 2003 a number of performance assessment indicators against which the banks' performance are monitored. Such measures strengthened the financial performances of banks and participated in the significant growth of the credit to the private sector. In Rwanda, to improve recovery on NPLs collateralized by real estate guarantees, the Ministry of Justice initiated in 2001 an accelerated loan recovery procedure. Finally, Bahrain implemented in 2003 measures related to operational risk management, corporate governance reporting, and contingency planning, and also measures aiming at strengthening internal corporate control, imposing stricter oversight over consumer lending, and introducing new requirements for liquidity management and e-banking.

- *Application to Benin*. Benin's banking sector is shallow and under-developed. Low profitability, exposure to the sovereign as well as high NPLs limit banks' ability to finance the private sector's projects. In close coordination with the regional supervisors, the Beninese authorities should keep addressing the main weaknesses of the sector, (including high level of NPLs, low

profitability) and promote financial inclusion. See further discussion in the Selected Issues Paper below on "Bank Profitability in Benin: A Diagnostic Exercise."

12.   The introduction of new financial players, including pension funds, financial advisory groups, and money brokers, can contribute to unlock financing for the private sector. This helps deepen existing financial markets, increase their liquidity, and allows better mutualization of risks.

- *International experiences*. Despite the small size of its economy, Bahrain undertook in early 2000s adequate reforms that develop the financial system. In addition to the key players in the sector, such as commercial and Islamic banks, offshore banking units, and insurance companies, the country succeeded in introducing a large group of smaller players, including pension funds, financial advisory groups, and money brokers.

- *Application to Benin*. Some mutual funds (FCPs) and unit trusts (SICAVs) are operating within the regional financial market; however, their number is still small and their size narrow. The development and diversification of such institutions could help foster the liquidity of the financial market and mutualize risks. Also, these institutions could dynamize the secondary market of the regional government securities market, in which the investor base is narrow and dominated by local banks (IMF, 2019).

13.   Opening the domestic financial sector to foreign investors has generally been beneficial. The (IMF, 2014) shows that the development of the capital markets of emerging countries, which has taken place over the last fifteen years, has gone hand in hand with diversification of the local investor base and the increased presence of international investors. The increase in foreign ownership of banks, which has the potential to improve governance and accelerate the transfer of technology and management practices, can contribute to boosting the financing pool for private sector projects.

- *International experiences*. To enhance financial development, Bahrain's authorities fostered since the early 2000s the opening of the financial sector to foreign investors, and most financial institutions are now privately owned. Some leading international banks (including Citibank and BNP Paribas) have opened Islamic subsidiaries in Bahrain to tap the growing market. China has increased in the last two decades foreign ownership of banks, which has the potential to improve governance and accelerate the transfer of technology and management practices.

- *Application to Benin*. Foreign investors could be a lever for deepening the WAEMU government securities market. The implementation of an integrated market supervision and a single Central Securities Depositor would help attracting more foreign investors (IMF, 2019). This could enhance the attractiveness of region, which already benefits from relative political stability, strong macroeconomic fundamentals, and the fixed parity of the CFAF against the euro.

E. Lesson 4: Nurture High Potential Activities

14.   To make agriculture a central driver of investment and economic growth, countries have made efforts to raise the productivity of the sector and climb the quality ladder. In many developing and emerging economies, agriculture, which employs the major part of the population, plays an important role in the economy. However, the lack of diversification combined with the prevalence of subsistence and informal farming often lead to low productivity and low contribution to overall growth.

- *International experiences*. In Thailand the agricultural sector, in particular the production and export of rice recovered strongly in 1987 supported by rising world prices and reforms related to the sophistication of the agricultural techniques (IMF, 1989). Government policies boosting productivity in agriculture, such as the mechanization strategy, have played a major role in sustaining equitable growth in Ethiopia, given that poverty is primarily in rural areas (IMF, 2015).

- *Application to Benin*. The authorities' strategy consists of promoting nascent productions such as cashew nuts and pineapple and develop the cotton sector. Further reforms to boost productivity could focus on land tenure security, irrigation, extension services, development of high-value crops, expansion of good quality of fertilizer and better storage in warehouses. Also, policies aiming at strengthening protection against erosion and dealing with environmental problems could help increase the crop yields.

15.   Support to the manufacturing sector has also often been conducive to growth and private investment. In many developing economies, manufacturing is a key growth driver due to its high productivity growth, tradability, low skill requirements, and ease of absorbing new technology (Cherif and Hasanov, 2019). Countries that succeeded in bolstering manufacturing offered favorable conditions for the development of the sector, including competitive wages, quality infrastructure, and a well-functioning financial system.

- *International experiences.* Since the early 2000s, the Ethiopian authorities have placed a key emphasis on private sector development and FDI, particularly in building an export-oriented manufacturing sector, comprising mainly of textiles and leather manufacturing. The government has also developed industrial parks and clusters to boost FDI and private investment in key sectors. Competitive wages allowed Ethiopia to become an attractive destination for light manufacturing investors (IMF, 2015a). Another example is China. Building on its low-cost labor force, China has had higher sustained growth and employment generation by focusing on manufacturing. Many companies from developed economies have extensive operations there in order to take advantage of the low-cost labor for export-oriented manufacturing and sell their products in the booming Chinese market (Morrison, 2014).

- *Application to Benin*. Benin's manufacturing sector has been declining over the last years. The share of the manufacturing sector decreased from 21 percent in 1999 to 14 percent in 2018 (preliminary data). In particular, textile and food processing industries have experienced a decline due to foreign competition and lack of past investment. Beninese authorities could further

investigate factors that led to the deindustrialization of the country and implement policies that would counterbalance the current trend. They are already taking steps to develop the food processing industry. Some textile industries could also be built around cotton activity in order to increase the added value of the product and diversify exports.

F. Lesson 5: Use Tax Incentives Sparingly

16.   Some countries used actively targeted tax incentives during successful transitions. Tax incentives have been effective in attracting FDIs in some countries such as China and Jordan. However, it will be challenging to replicate such experiences in Low Income Countries because tax incentives cannot overcome some bottlenecks such as weak physical infrastructure, poor governance and underdeveloped financial systems (IMF 2015b, and Andersen and others 2018).

- *International experiences*. China and Jordan have resorted to tax incentives to stimulate private investment, respectively in early 2000s and 1990s. In Jordan, tax concessions and other incentives were offered to private investors, while China reduced agricultural taxes and the business tax on financial institutions to support the private sector.

- *Application to Benin*. In low-income countries, tax incentives do not tend to weigh significantly on the private investors' decision. For example, tax incentives cannot offset such some characteristics such as poor infrastructure, under-developed financial system or weak governance and judicial system. Given such a situation, Benin should use tax incentives with caution and ensure that they are well designed, bearing in mind their potentially large budgetary cost.[4]

G. Conclusion

The analysis of country experiences has identified three main messages:

- *Improve the business environment to boost private returns*. Countries that increased significantly private investment in times of fiscal consolidation focused on: (i) improving the quality of physical infrastructure in the years preceding the public investment consolidation; and (ii) advancing deep reforms of their regulatory and governance framework.

- *Facilitate access to finance to lower the cost of investment*. Financial development has been key in numerous episodes of successful transitions. It contributed to unlock sources of financing for the private sector.

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[4] The effective use of tax incentives requires that they be carefully designed. "Good" tax incentives are generally (i) targeted towards exporting firms; (ii) not limited to large investments; (iii) temporary; and (iv) cost-based rather than profit-based (see IMF, 2015b).

- *Conduct policies to support agriculture and avoid deindustrialization.* In particular, this will require raising the productivity and quality ladder in cotton and other crops, and create a competitive environment to attract investors towards manufacturing.

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Annex I. Robustness Analysis

The tables below show alternative lists of episodes by changing the three criteria, namely by conducing sensitivity analysis on: (i) the size of the public investment tightening; (ii) the length of this tightening; and (iii) the period over which success (defined as a compensation by private investment) is tested. The episodes identified in the baseline analysis are shown in green in the tables below.

Table 1. Summary of the Robustness Analysis

Scenario 1 (3 percent, 5 years, 5 years)

	Change in Public Investment in percent of GDP	Change in Private Investment in percent of GDP	Change in Total Investment in percent of GDP
Bahrain 2003-07	-4.0	7.7	3.7
China 2004-08	-6.5	7.2	0.7
China 2010-14	-5.5	5.5	0.0
Colombia 1984-88	-3.5	5.6	2.1
Croatia 1997-2001	-3.0	5.0	2.0
Ethiopia 2011-15	-5.1	5.6	0.5
Georgia 2012-16	-3.3	6.4	3.1
Honduras 1992-96	-4.2	7.0	2.8
India 1995-99	-2.9	3.4	0.5
Jordan 1988-92	-4.2	7.4	3.2
Kossova 2001-05	-6.2	6.9	0.7
Rwanda 1999-2003	-7.5	8.8	1.3
Thailand 1986-90	-3.6	7.1	3.5
Turkey 1992-96	-3.0	4.7	1.7
United-Kingdom 1984-88	-4.9	9.1	4.2
Uzbekistan 2003-07	-3.0	6.0	3.0

Scenario 2 (2 percent, 3 years, 5 years)

	Change in Public Investment in percent of GDP	Change in Private Investment in percent of GDP	Change in Total Investment in percent of GDP
Bahrain 2003-05	-3.4	7.7	4.2
China 2004-06	-3.2	7.2	4.0
China 2010-12	-4.7	5.5	0.8
Croatia 1997-99	-2.0	5.0	3.0
Ethiopia 2013-15	-2.6	5.6	3.0
Georgia 2012-14	-2.7	6.4	3.7
Honduras 1994-96	-4.2	7.0	2.8
India 1995-97	-2.6	3.4	0.8
Jordan 1988-90	-4.0	7.4	3.4
Kossova 2005-07	-4.5	5.9	1.3
Nepal 1999-2001	-3.9	4.4	0.5
New-Zealand 1991-93	-2.1	2.9	0.8
Rwanda 2001-03	-3.6	8.8	5.2
Thailand 1987-89	-2.3	7.1	4.8
Turkey 1987-89	-2.4	6.3	3.9
United Kingdom 1986-88	-3.9	9.1	5.2
Uzbekistan 2003-05	-2.4	6.0	3.6

Scenario 3 (1.5 percent, 2 years, 2 years)

	Change in Public Investment in percent of GDP	Change in Private Investment in percent of GDP	Change in Total Investment in percent of GDP
Bahrain 2003-04	-3.0	5.8	2.9
Cabo-Verde 2015-16	-2.8	5.5	2.6
China 2004-05	-2.5	3.5	1.1
China 2010-11	-3.7	4.1	0.4
Croatia 1997-98	-1.8	4.4	2.6
Ethiopia 2014-15	-1.9	7.3	5.3
India 1995-96	-2.1	3.6	1.5
Jordan 1989-90	-3.0	4.9	1.9
Kossova 2005-06	-3.8	5.3	1.5
Rwanda 2002-03	-2.6	2.7	0.2
Thailand 1987-88	-2.3	4.0	1.7
Thailand 2000-01	-1.6	3.7	2.1
Turkey 1987-88	-3.3	7.6	4.3
United-Kingdom 1987-88	-3.6	6.7	3.0

Scenario 4 (2 percent, 2 years, 3 years)

	Change in Public Investment in percent of GDP	Change in Private Investment in percent of GDP	Change in Total Investment in percent of GDP
Bahrain 2003-04	-3.0	5.8	2.9
Cabo-Verde 2015-16	-2.8	5.5	2.6
China 2004-05	-2.5	3.5	1.1
China 2010-11	-3.7	4.1	0.4
Ethiopia 2014-15	-1.9	4.9	2.9
India 1994-96	-2.1	3.7	1.6
Jordan 1989-90	-3.0	4.9	1.9
Kossova 2005-06	-3.8	5.3	1.5
Rwanda 2002-03	-2.6	2.7	0.2
Turkey 1987-88	-3.3	7.6	4.3
Thailand 1987-88	-2.3	7.1	4.8
United-Kingdom 1987-88	-3.6	6.7	3.0

Sources: IMF Staff Calculations

Annex II. Policies Implemented During the Episodes

Table 1. Policies Implemented During the Episodes

	Bahrain 2003-05	China 2004-06	China 2010-12	Ethiopia 2013-15	India 1995-97	Jordan 1988-90	Rwanda 2001-03	Thailand 1987-89	Turkey 1987-89
A. POLICIES THAT INCREASE RETURN TO INVESTMENT									
1. Policies that increase total returns									
1.1 Policies that address government failures									
1.1.1 Infrastructure	X	X	X	X	X	X	X	X	X
1.1.2 Education	X	X	X		X				
1.1.3 Health	X		X						
1.2 Policies that address market failures									
1.2.1 Sectoral policies that develop new activities	X	X	X					X	
1.2.2 Sectoral policies that develop existing activities		X	X	X					
2. Policies that improve private appropriation of total returns									
2.1 Policies that address government failures									
2.1.1 Regulatory framework, property rights, governance reforms	X	X	X	X	X		X	X	
2.1.2 Decrease in taxes on capital			X		X			X	
2.1.3 Economic stability	X	X		X	X			X	
2.2 Policies that address market failures									
2.2.1 Information externalities									
B. POLICIES THAT REDUCE THE COST OF INVESTMENT									
1. Better access to and cost of domestic finance									
1.1 Creation of new financial markets	X	X			X				
1.2 Deepening of existing markets	X	X	X	X	X	X	X	X	X
1.4 Better transmission of monetary policy		X	X		X				
1.5 Microfinance		X	X						
2. Better access to and cost of international finance									
2.1 Liberilisation of capital flows				X					

Sources: IMF Staff Calculations.

TAX REVENUE MOBILIZATION IN BENIN: LESSONS FROM SUCCESSFUL EXPERIENCES IN LIDCS[1]

Tax revenue mobilization is improving in Benin but remains low compared to its peers and given the large development needs. Some low-income countries have managed in the past to durably increase their tax revenue. This paper draws some lessons from their experiences. The analysis shows that Benin would benefit from: (i) implementing tax policy reforms that exploit further the potential of consumption taxation, particularly VAT and excises; (ii) making the revenue administration more effective to reduce compliance risks and; (iii) getting the buy-in of all stakeholders to facilitate reform implementation.
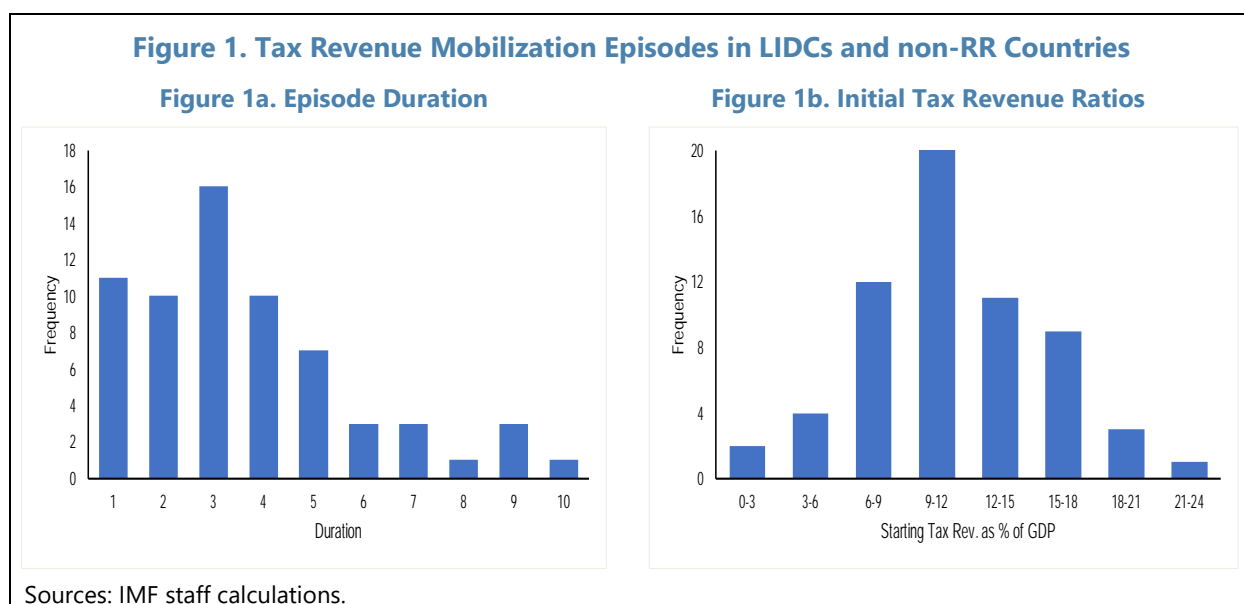
A. The Need for Revenue Mobilization in Benin

1.   Tax revenue is relatively low in Benin. Benin had a tax-to-GDP ratio of 13.2 percent of GDP in 2017, compared to 15.4 percent of GDP in non-resource rich low-income and developing countries (LICDs) and 15.1 percent of GDP in Sub-Saharan African (SSA) countries.

2.   Enhancing revenue mobilization is crucial to achieving development objectives in a sustainable manner. Improving tax collection could enhance the country's ability to (i) create fiscal space to achieve the Sustainable Development Goals (SDGs); (ii) improve the debt repayment capacity and; (iii) meet the WAEMU convergence criteria given that most of them are directly or indirectly affected by tax performance. Aware of the benefits of revenue mobilization, the authorities have recently taken steps to eliminate selected tax expenditures as part of the 2019 budget.

3.   Benin could learn from the experience of other countries, in particular those that are not rich in natural resources. IMF staff has identified 65 episodes of large tax increases in LICDs that are not rich in natural resources (Non-RR) between 2000 and 2015. Large revenue increases are defined as an improvement in the tax-to-GDP by a minimum of 0.5 percent per year. A cyclical adjustment is performed to ensure that these increases are driven by fiscal policy and reforms, not by the economic cycle.

4.   The analysis of these successful experiences reveals some commonalities. Two main stylized facts were observed in countries that managed to successfully increase their tax revenue:

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[1] Prepared by Mouhamadou Sy (FAD). This paper builds on: Akitoby *et al.* (2018), ''Tax Revenue Mobilization in Emerging Markets and Low-Income Countries: Lessons from a New Dataset'', IMF Working Paper No 18-234, Akitoby *et al.* (2019), ''Case Studies in Tax Revenue Mobilization in Low-Income Countries'' IMF Working Paper No 19-104 and various technical assistance reports on Benin by the Fiscal Affairs Department. It also builds on the Regional Economic Outlook (2018), ''Domestic Revenue Mobilization in Sub-Saharan Africa: What Are the Possibilities?'', African Department, International Monetary Fund. This paper expands the scope of the previous paper by analyzing LIDCs outside the SSA; it also enriches the analysis by using the case studies in Akitoby *et al.* (2019).

- *Durability*. In the sample, the average period of increase of tax ratios in LIDCs that are non-RR countries was 3.4 years and some countries managed to preserve the increase over 5 years (Figure 1a).

- *Mostly occurred in countries with low initial tax ratios*. Episodes of large tax revenue mobilization happened mostly in countries with low initial tax-to-GDP ratios[2] in the sample of non-RR LIDCs (Figure 1b).

Taken together, these stylized facts suggest that the payoff of revenue reforms can be big, durable, and occur in countries with an initially-low tax performance.
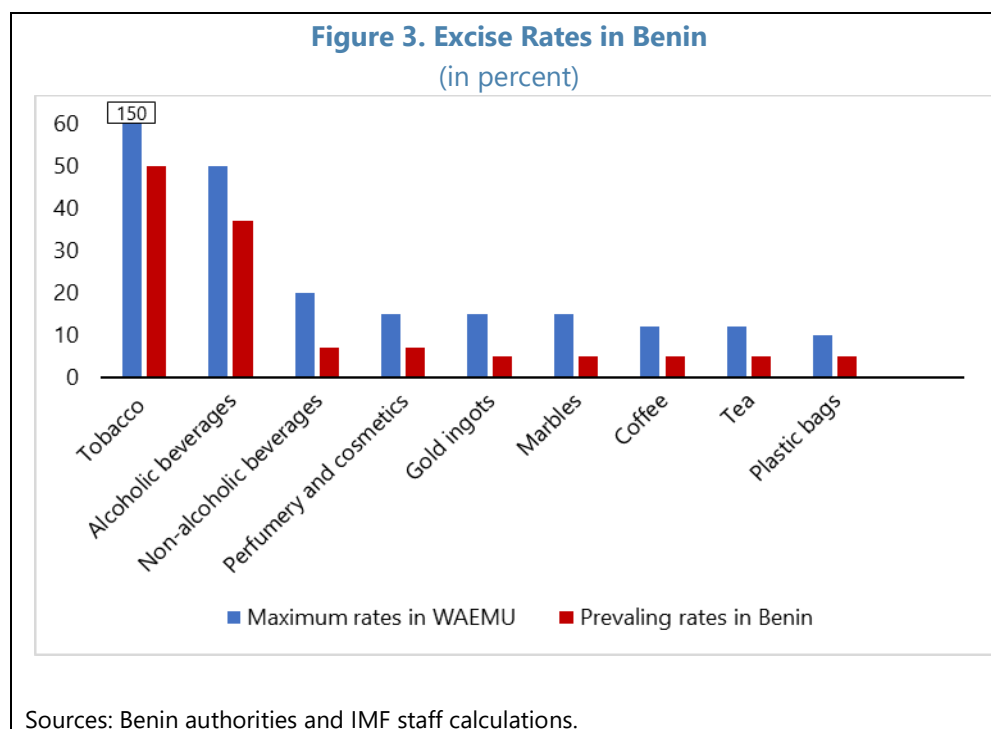
Figure 1. Tax Revenue Mobilization Episodes in LIDCs and non-RR Countries

Figure 1a. Episode Duration	Figure 1b. Initial Tax Revenue Ratios

Sources: IMF staff calculations.

B. Lesson 1: Exploit the Full Potential of Consumption Taxation

5.   Successful tax policy reforms often start with untapped and low hanging fruits, such as excises.

- *Country experiences*. Excise duties generally concern a limited number of goods (tobacco, alcohol, luxury goods, etc.) whose elasticity of demand in relation to price is low. Some of these goods have been targeted by countries that aimed to increase revenues. For example, Gambia increased the tax rate on cigarettes by about 25 percent in 2013; excise revenues from tobacco products increased by 0.5 percentage points to reach 0.8 percent of GDP in 2014. Burkina Faso also increased the excise tax for alcoholic beverages from 25 to 30 percent.

- *Application to Benin*. Excises remain an untapped source of revenue in WAEMU countries in general and in Benin particularly (Figure 2). Excise rates in Benin are in general far below the ceilings set by the WAEMU Commission for almost all products that are subjected to excise

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[2] 70 percent of LICs had a tax-to-GDP ratio below 15 percent before the tax reform period.

taxation (Figure 3). The country could also consider introducing excise taxes on new goods (e.g. on imported mineral water and energizing drinks).

Figure 2. Revenue from Excises in Benin and in Selected Comparators
(Percent of GDP)

Sources: IMF staff calculations. Note: LAC (Latin American Countries)

Figure 3. Excise Rates in Benin
(in percent)

Sources: Benin authorities and IMF staff calculations.
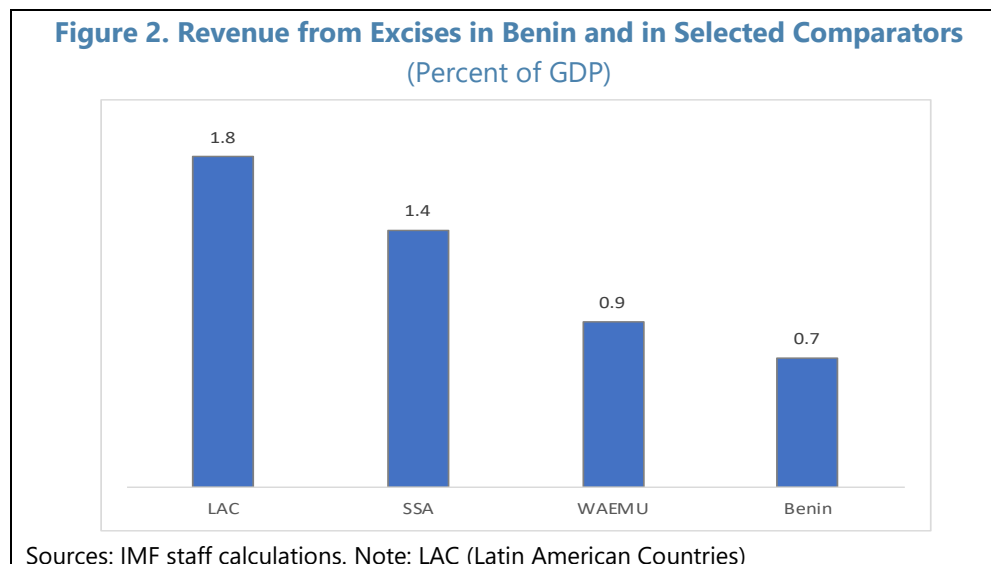
6.   **Large tax revenue increases often require exploiting the full potential that VAT offers.**

- *Country experiences*. The gap between the VAT currently collected and the VAT that could be collected—approximated the C-efficiency—tends to be high in LIDCs (Figure 4). This points out to inefficiencies in the management of VAT from tax policy (e.g. high tax exemptions) and/or from revenue administration (compliance gap). In general, successful experiences have primarily

focused on improving the C-efficiency rather than increasing VAT rates. For example, in 2012, Rwanda removed some tax exemptions particularly those related to its investment code. In 2014, Uganda reformed its VAT system through a new tax code ("revenue package") by reducing many exemptions (e.g., eliminating VAT exemptions on sales of motor vehicles or trailers, extending VAT to computers), eliminating VAT exemptions on hotels, and increasing the VAT threshold.

- *Application to Benin.* Like many LIDCs, Benin has a low C-efficiency (Figure 4) pointing out to a high VAT gap. Reducing the VAT gap would require that the authorities pursue the rationalization of VAT exemptions to improve the policy gap and develop a strategy to reduce the compliance gap (primarily by improving the VAT management capacity within the tax administration, promoting voluntary compliance[3], increasing the VAT threshold to ease the burden of the tax administration and enable it to focus on a smaller VAT-liable taxpayers, and better implement the VAT reimbursement scheme to assure the credibility of the VAT system).

Figure 4. C-Efficiency, 2000–14

Sources: IMF staff calculation using R-GAP. Notes: Advances Economies (AEs); Emerging Markets (EMs); Low-Income and Developing Countries (LIDCs); Sub-Saharan Africa (SSA).
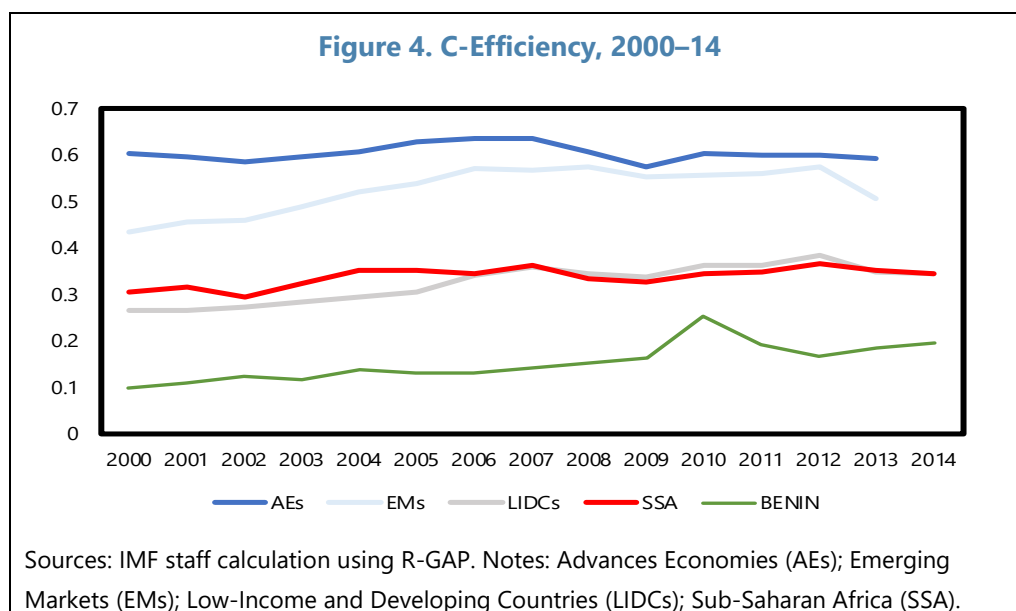
C. Lesson 2: Reform Revenue Administration to Improve Tax Compliance

7.   Resources of the tax administration should be reoriented toward higher-risk taxpayers.

- *Country experiences.* Many successful countries implemented some human resource management changes that aim to better monitor and sanction the riskiest taxpayers. Identifying, assessing and mitigating compliance risks is important to support the functioning of the tax administration. Reforms should be comprehensive by covering all domain of compliance risk

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[3] The launch of the experimentation phase of the electronic VAT invoicing machines system and the improvement of taxpayer services (by providing taxpayers with a personalized tax space) are moves in the right direction.

management (registration, filing, payment, and reporting). Recently, Senegal, Rwanda, and Uganda have established fundamental elements of a compliance management system.

- *Application to Benin.* There is an urgent need to optimize the management of human resources in the tax administration of Benin by easing the staff responsible for automated functions for the benefit of expert pools (risk analysis, control, research, investigation, recovery). For example, audit and research services account only for 5 percent of the overall workforce. This is five to six times lower than in tax administrations that perform well in the fight against tax fraud. A first step for the authorities should be to strengthen the *Bureau d'enquete, de recherche et d'analyse des risques* (BERAR) by providing it with more skilled staff (statisticians, computer scientists, etc.) and train its staff on the use of SIGTAS and risk analysis.

8.   Information and Technology (IT) systems should be leveraged to improve the efficiency of tax collection and compliance.

- *Country experiences.* Many successful experiences have taken advantage of IT systems to improve tax collection. For example, the Uganda Revenue Authority improved the quality of its taxpayer services by using e-tax services to facilitate taxpayers' registration, filling and payment. Rwanda recently introduced electronic filing and implemented electronic registration which helped improve the registration process. Senegal introduced a systematic use of e-filling and e-payment in 2017.

- *Application Benin.* The tax administration has recently been upgrading its IT system. This should, in principle, enable the tax administration to provide e-tax services to its taxpayers. However, these are not yet fully operational. The delay is due to the low quality of the data to be processed by the IT system, the need to train staff, and the absence of a communication strategy towards the adoption of this new technology by taxpayers. At the moment, large and medium corporates have access to e-payment. Manual treatment of tax declarations remains predominant and this hinders the improvement of data quality. The tax administration should make systematic the use of e-service to improve the quality and quantity of information collected from taxpayers.

9.   Cooperation between tax and customs administrations could be improved to limit cross-border frauds.

- *Country experiences:* The coordination between tax and customs administrations needs to be upgraded particularly in the area of information exchange. Some taxpayer information gathered at the border (on importers, in particular) need to be fully exploited by the tax administration to reduce compliance risk. In turn, some information collected by the tax administration (tax identification numbers for example) could be leveraged by the customs administration to limit tax fraud on imported goods. For example, in 2012 Burkina Faso has introduced two management systems to improve information sharing between the tax and customs administrations to combat fraud and limit tax avoidance.

- *Application to Benin:* Given the importance of international trade[4] for revenue collection in Benin, improving the cooperation between the two tax administrations is crucial. There are loopholes in the collection of customs revenue which in turn impact the collection of non-customs revenues. A recent crosscheck of the two revenue agencies' databases showed that many importers are still unknown to the tax administration, highlighting the lack of collaboration between the two administrations.

D.   Lesson 3: Get the Buy-in of All Stakeholders

10.   Political willingness is key to foster the implementation of tax reforms.

- *Country experiences*. When institutions are weak—as is often the case in many LIDCs—and large taxpayers can use their political connections to avoid tax compliance, political commitment is necessary to contain vested interest and pursue reforms that are politically difficult. In addition, political commitment can facilitate coordination between all relevant agencies, particularly between tax and customs administrations.

- *Lessons for Benin.* By starting the rationalization of tax expenditures under the 2019 Budget Law, the authorities have shown their willingness to take the road of revenue mobilization. More needs to be done though, given the still high level of tax expenditures and the scope to enhance the cooperation between the different tax agencies.

11.   Outreach through education, social dialogue and consultation can secure better compliance.

- *Country experiences*. Taxpayer compliance is essential in achieving durable revenue mobilization gains. For example, in Senegal, the authorities adopted in 2012 a tax code that were prepared in consultation with employers and labor unions. They had the opportunity to provide inputs and comments on the draft version of the new tax code. This inclusive approach created a greater acceptance of the reforms.

- *Lessons for Benin.* The authorities could improve their communications strategy particularly in the management of the VAT. For example, to improve VAT collection, the public should be aware that they must demand tickets for every purchase. This would force businesses to engage in VAT compliance, thus reducing informal trading. In addition, the authorities should involve taxpayers at all stages of tax reforms.

12.   Synergies between tax policy and tax administrations should be developed to maximize the benefits of revenue reforms.

- *Country experiences.* The most successful experiences (defined as those with the largest and most persistent gains) have pursued both revenue administration and tax policy reforms. Indeed,

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[4] In 2017, Benin had an openness rate (exports plus imports in percent of GDP) of 79 percent comparing to 59 percent in Sub-Saharan Africa.

tax policy measures need to be implemented by an efficient tax administration. In turn, tax administration reforms could be constrained by an inefficient tax policy system (e.g. high tax exemptions make the implementation of the tax code more complicated and resource-intensive).

- *Lessons for Benin.* Synergies can be exploited in both directions in Benin. On the one hand, the rationalization of tax expenditures initiated by the authorities will bear its fruits only if it is supported by an efficient tax administration. On the other hand, the efficiency of tax administration also requires efforts on the tax policy side to simplify the tax code. In this regard, the authorities should carefully consider the possible downsides of introducing new tax incentives for investment, which can have a large budgetary cost without clear effect on FDIs.[5]

E. Conclusions

13.   The analysis of country experiences has identified three main ingredients for success:

- *An emphasis on consumption taxation.* Countries that managed a significant increase in tax revenue mostly focus on consumption taxation by: (i) broadening the VAT base (for example, with a rationalization of tax exemptions) and; (ii) raising excises (either by increasing tax rates or introducing new excise taxes on selected goods).

- *A focus on the riskiest taxpayers.* Success relied on (i) reforming tax administration functions to improve the compliance of the riskiest taxpayers and leverage on IT and; (ii) reinforcing the cooperation between domestic and customs administrations to reduce cross-border tax evasion and avoidance.

- *Getting the buy-in of all stakeholders.* This required (i) joint efforts on tax policy and revenue administration side; (ii) political commitment to facilitate the implementation of reforms and; (iii) social dialogue and consultation.

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[5] See IMF (2015), ''Options for LIC Effective and Efficient Use of Tax Incentives for Investment'', and Anderson *et al.* (2018), ''Corporate Tax Incentives and FDI in Developing Countries''.

BANK PROFITABILITY IN BENIN: A DIAGNOSTIC EXERCISE[1]

The profitability of the Beninese banking system has been weak over the past decade, and tends to compare unfavorably to regional competitors. This paper identifies determinants of banks' profits and draws attention to key factors explaining the weak performance of Beninese banks. Furthermore, the paper compares Benin banks' efficiency in generating profits with that of their regional peers by constructing an efficiency frontier and calculating the distance of Beninese banks from their most efficient counterparts in the WAEMU region. To gauge possible impact of changes in macroeconomic environment on banks' profitability, the paper also conducts simple sensitivity analyses.

A. Introduction

1.   The aggregate profitability of the banking sector in Benin has been weak during the past decade. At the aggregate level, profit of Beninese banks lagged their WAEMU peers between 2005 and 2017 (Table 1). Average return on assets (ROA) and return on equity (ROE) ratios, in addition to several other profitability-related indicators, were below those of the WAEMU region.

Table 1. Bank Profitability in Benin and WAEMU

	Benin: Simple Average (2005-2017)	WAEMU: Simple Average (2005-2017)
Average interest rate on loans (1)	9.0	9.7
Average cost of borrowed funds (2)	3.0	2.5
Average interest margin (1)-(2)	5.9	7.2
After-tax return on average assets (ROA)	0.3	1.1
After-tax return on net capital (ROE)	2.6	11.5
Noninterest expenses / net banking income	66.1	60.6
Salaries and wages / net banking income	28.3	26.4

Source: Financial Soundness Indicators, IMF

2.   Low profitability can amplify bank vulnerabilities to shocks. Low profitability reduces banks' ability to withstand unexpected and expected losses, since it weighs on capital and reduces the room for provisioning. Also, the need to restore capital adequacy and restructure the banks' portfolio holdings may impact negatively the credit provided to the economy. Finally, weak profitability may induce banks to boost profits by taking greater risks.

3.   Understanding bank's weak profitability is challenging. While low profitability can be related to poor idiosyncratic business decisions, consistently low profits across banks may suggest that structural forces are also at work. These could relate to over-banking and governance issues, for instance (IMF, 2017). In the case of Benin, causes of persistently low profitability may relate to a combination of cyclical factors (e.g. due to spillovers from Nigeria) and structural determinants (e.g. lack of investment opportunities and highly informal economy).

4.   The purpose of this paper is to provide a diagnostic assessment of the low bank profitability in Benin. The analysis applies three methods: i) an income statement decomposition for all banks in Benin, to identify the determinants of their profits; ii) a data envelopment analysis
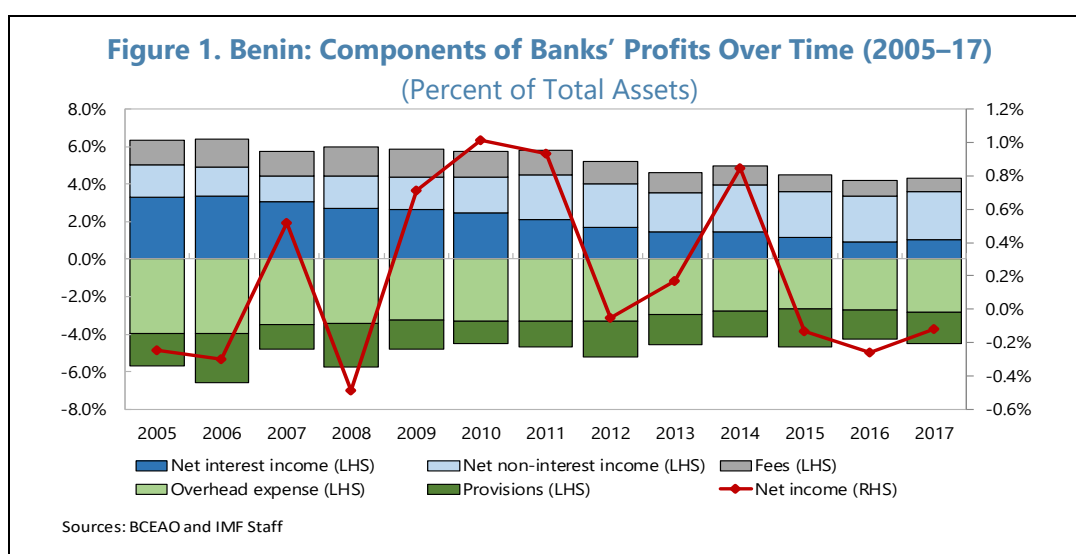
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[1] Prepared by Goran Amidzic (AFR).

(DEA) for all banks in Benin and across the WAEMU, to benchmark banks' efficiency in generating profits; and (iii) a sensitivity analysis assessing the response of some key components of the income statement to macroeconomic shocks.

B. Income Statement Decomposition

5.   A decomposition of the main components of a bank's income statement can help identify the key drivers of profitability.[2] The size and evolution of net income can be analyzed by looking at the contribution of the components of income statement grouped into five categories (net interest income, net non-interest income, fees, provisions[3] and operating expenses) and expressed in percent of total assets. The exercise involves the analysis of income statements of 117 banks across the 8 WAEMU-member countries for the period 2005-17.

6.   During the past decade, aggregate bank profitability has been declining and turned negative in 2015-17 (Figure 1). The ratio of net income to assets has gone down from a peak of 1.02 percent in 2010 to a trough of –0.26 percent in 2016. Compared to 2016, the decline has been broad-based, with only 3 out of 14 banks showing improvement in 2017. [4]

Figure 1. Benin: Components of Banks' Profits Over Time (2005–17)
(Percent of Total Assets)

Sources: BCEAO and IMF Staff

7.   The main factor behind this decline in profitability has been a continuous contraction in net interest income over the period. To identify the main drivers of a declining profitability, the analysis compared components of banks' profitability during the period when profitability was high

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[2] Banks' balance sheet and income statement data are published by the BCEAO: https://www.bceao.int/fr/publications/bilans-et-comptes-de-resultats-des-etablissements-de-credit-de-lumoa.

[3] Due to the unavailability of (publicly available) disaggregated income statement data, the "provision" category comprises of (i) provisions for non-performing loans, (ii) fixed capital depreciation, (iii) amortization expenses, and (iv) valuation adjustment expenses.

[4] Following weak performance in 2017, three banks in Benin changed ownership. The Beninese government took control of Banque Africaine pour l'Industrie et le Commerce (BAIC) and Banque Internationale du Bénin (BIBE), while Banque de l'Habitat du Bénin (BHB) was acquired by Bank of Africa (BOA).
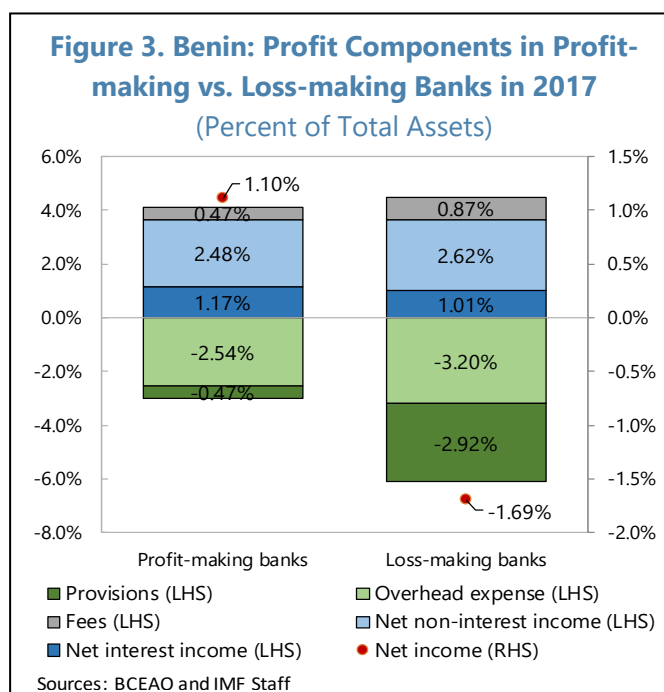
(2009-11) with those recorded during the period when profitability was low (2015-17). The main component driving the decline in profitability was the net interest income component, which decreased by 1.35 percent of total assets between the average over 2009-11 and the average over 2015-17 (Figure 2).[5] Further analysis (not shown in chart) shows that, while interest expense was broadly identical between the two periods, interest income during the 2009-11 period was higher by 1.17 percent of banks' total assets.

Figure 2. Benin: Difference in Profit Components Between Average 2015–17 and Average 2009–11
(Percent of Total Assets)

Sources: BCEAO and IMF Staff

As a result, net interest income during the 2009-11 period was more than twice the size of net interest income recorded over 2015-17.
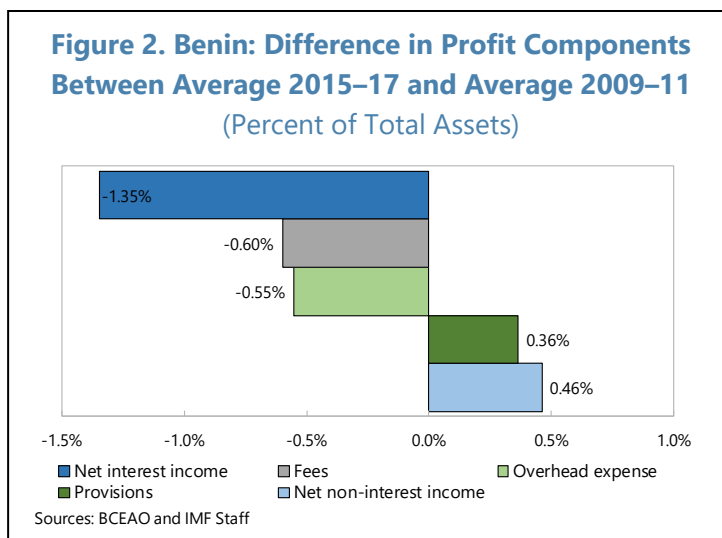
8.   In 2017, the sector remained loss-making due to large provision expenses. Data for the latest available period (2017) shows that six banks (mostly small banks) recorded negative net income, with the weighted average of net income for the whole sector at -0.12 percent of the sector's total assets. By comparing profit-making with loss-making banks in 2017, the poor performance of loss-making banks can be mostly explained by higher overhead expense and provisions, of which the majority came from valuation adjustments (Figure 3).[6]

Figure 3. Benin: Profit Components in Profit-making vs. Loss-making Banks in 2017
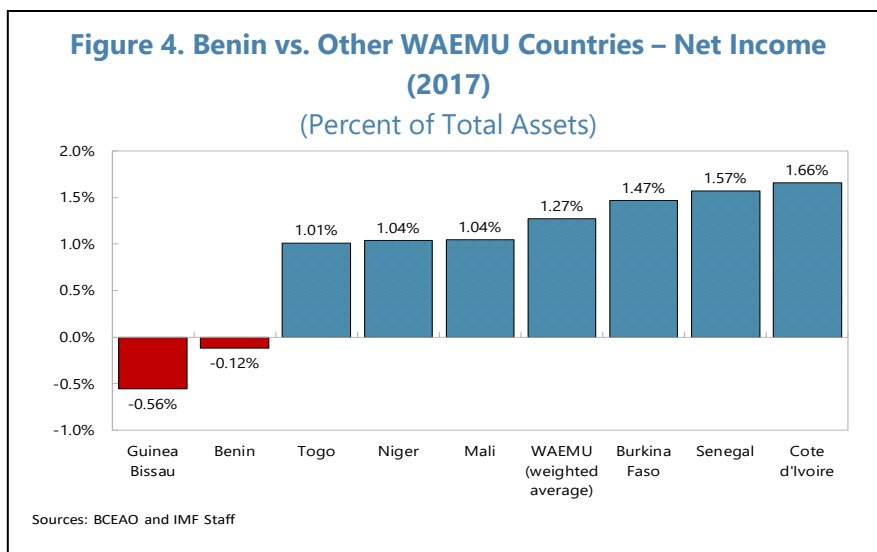(Percent of Total Assets)

Sources: BCEAO and IMF Staff

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[5] Figure 2 makes the comparison between the periods 2009-11 and 2015-17. An alternative comparison was conducted using the average over high-profitability years (2009,10,11,14) versus the average over low-profitability years (2012,13,15,16,17). The main conclusion continues to hold, namely that net interest income is the main factor explaining the difference.

[6] We also conducted an alternative comparison of profit components between large and small banks (instead of profit and loss-making ones). The sample of 14 banks in 2017 is split evenly between the two groups using the share of individual bank assets in the total assets of the banking sector as a size metric. This provides a threshold of FCFA 190 billion above which a bank is classified as big. The conclusions of Figure 3 remain: high overhead expense and provisions are the main determinants of banks' low profitability.

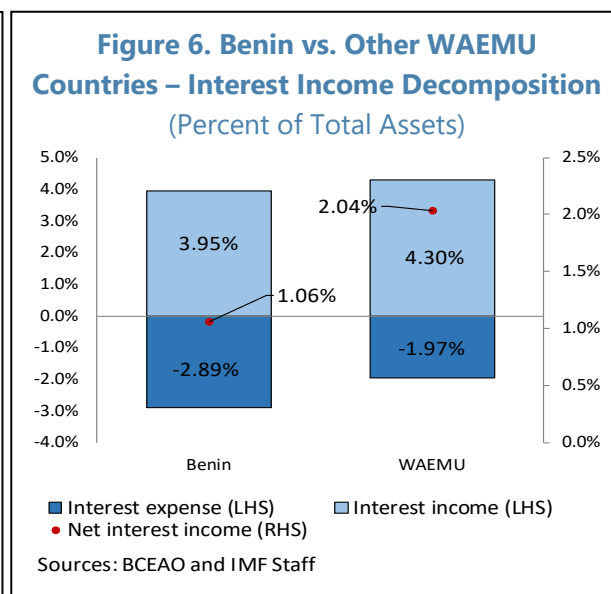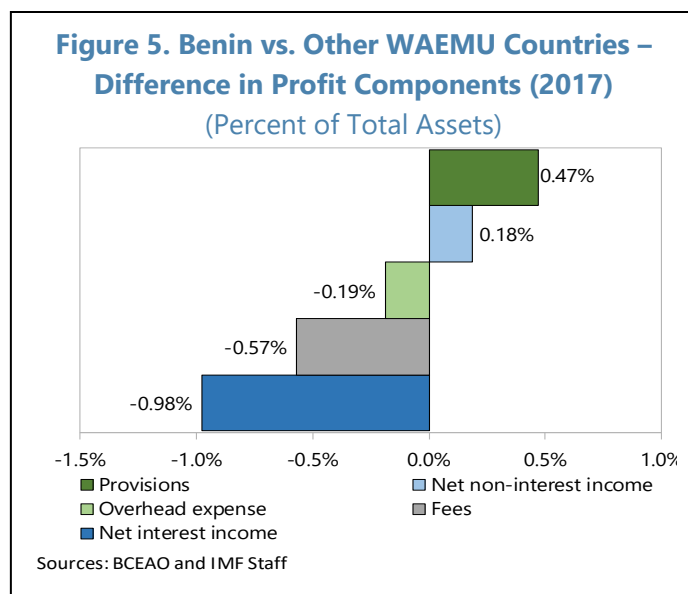**9.   The profitability of Beninese banks does not compare favorably with that of WAEMU peers.** While the WAEMU banking sector recorded gains in 2017 of 1.27 percent of total assets, banks in Benin were on average loss-making with net income at -0.12 percent of the sector's total assets. Moreover, in 2017 Benin was home to the two least profitable

Figure 4. Benin vs. Other WAEMU Countries – Net Income (2017)
(Percent of Total Assets)

Sources: BCEAO and IMF Staff

banks in the entire WAEMU region. Only the banking sector in Guinee Bissau recorded higher losses with negative net income at -0.56 percent of the sector's total assets (Figure 4).

10.   The reasons behind the poor performance of Beninese banks, compared to regional competitors, are higher provision expenses and higher cost of deposits in Benin. Banks in Benin recorded higher provision expenses (in amount of 0.47 percent of total assets), compared to banks in other WAEMU countries (Figure 5). In addition, while interest income was comparable across banks in Benin and other WAEMU countries in 2017, interest expense was 0.92 percent (of the sector's total assets) higher for Beninese banks. As a result, net interest income of Beninese banks was nearly 1.0 percent (of the sector's total assets) lower than in the rest of WAEMU in 2017 — 2.04 versus 1.06 percent (Figure 6).

Figure 5. Benin vs. Other WAEMU Countries – Difference in Profit Components (2017)
(Percent of Total Assets)

Provisions
Overhead expense
Net interest income
Net non-interest income
Fees

Sources: BCEAO and IMF Staff

Figure 6. Benin vs. Other WAEMU Countries – Interest Income Decomposition
(Percent of Total Assets)

Interest expense (LHS)
Net interest income (RHS)
Interest income (LHS)

Sources: BCEAO and IMF Staff

C. Data Envelopment Analysis

11.   To further benchmark the profitability of banks, the paper uses a data envelopment analysis (DEA).[7] In the DEA approach, efficiency is defined as the ability of a bank to generate profits from a combination of inputs; thus, efficiency can be viewed as a proxy for profitability. The DEA calculates three measures of efficiency. The main aggregate measure of efficiency is called "*economic efficiency*" and is a combination of "technical" and "allocative" efficiencies:[8]

- *Technical efficiency* refers to the "physical" ability of a bank to maximize profit for a given combination of inputs (disregarding their costs). It is estimated using an "output-oriented DEA" model.

- *Allocative efficiency* also considers input costs and the possibility of selecting various combinations of inputs. This efficiency denotes the bank's ability to use the inputs in optimal proportions, given their respective costs (that is, maximizing profit given overall costs).[9] It is estimated using a "cost-efficiency DEA" model.

12.   The application of the model requires data on profit and input expenses. Bank gross operating profit is used as the output data.[10] To produce this output, banks utilize labor, physical capital and customer deposits. The related costs for these inputs are i) total personnel expenses (for labor), ii) cost of setting up and maintaining bank branches (for physical capital), and iii) total interest paid on customer deposits. Each expense category can be decomposed into a volume component (number of employees, number of bank branches, and volume of deposits) and cost component (average compensation, administrative cost per branch, and interest rate on deposits). All output and input data are computed as a share of a bank's total assets to ensure comparability across banks.

13.   The following section of the paper carries out three types of estimations. First, the DEA model is applied to the Beninese banking sector only, and computes the economic (as well as

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[7] DEA is a linear non-parametric optimization procedure that uses information on each bank's input/output mix to construct an efficient production frontier for the entire banking system. The efficiency score of an individual bank is then computed as its relative distance from the efficiency frontier. For further details on DEA, the reader is referred to Seiford and Thrall (1990), and Berg, Forsund, and Jansen (1992), respectively. The DEAP software used here is described in Coelli (1996).

[8] DEA models can be implemented in two alternative ways, depending on the assumption made on returns to scale (either variable or constant). Coelli et al. (1996) note that the assumption of constant returns to scale is appropriate only if banks can be assumed to be operating at an optimal scale, i.e. in the absence of imperfect competition, financing constraints and other hindrances. Hence, this paper assumes variable returns to scale when computing all DEA models.

[9] Equivalently, allocative efficiency measures the ability of a bank to minimize its cost for a given level of profit.

[10] Gross operating profit is defined as income before management fees, property taxes, insurance, capital reserves, rent, interest, income taxes, depreciation and amortization expense. Data is derived from the publicly available income statement data for all banks in WAEMU, published by the BCEAO.

technical and allocative) efficiency of each bank in 2017. This allows comparing banks among their national peers, with the most efficient bank(s) in Benin setting the frontier. Second, the same model is applied to all WAEMU banks. In this case, Beninese banks are benchmarked against regional competitors in 2017, and the frontier is set by the most efficient banks within the region. Finally, a third exercise is conducted to track the evolution in efficiency of the aggregate Beninese banking system between 2007 and 2017 through a Malmquist index.[11]

14.   The sample comprises 117 banks in the 8 WAEMU-member countries. 14 of these banks are domiciled in Benin. All observations are supplied by the BCEAO.[12] Furthermore, for the purpose of the analysis, "foreign" banks are defined as globally operating banks headquartered outside the region; "pan-African" banks are defined as entities domiciled in the region and present in at least two countries (i.e. in their home country and in one or more other countries); while "domestic" banks represent banking institutions confined to operating in their own jurisdiction. In addition, the exercise classifies banks as "Domestic Systemically Important Banks" (D-SIBs), using the classification proposed by the Basel Committee to distinguish banking institutions whose failure could significantly affect the financial system and economy of a country where they operate (BCEAO, 2018). Finally, "large" and "small" banks differ by the overall share of individual bank's assets in a country's total banking sector assets.

15.   Applying the DEA to the Benin banking sector, we find that several banks exhibited very low efficiency in 2017. The distribution of bank-by-bank efficiency within Benin shows that half of the banks (7 out of 14) displayed a very low *economic efficiency* in 2017—at or below 25 percent of the frontier set by the most efficient Beninese banks (Figure 7).

Figure 7. Distribution of Economic Efficiencies of Beninese Banks (2017)

Sources: BCEAO and IMF Staff
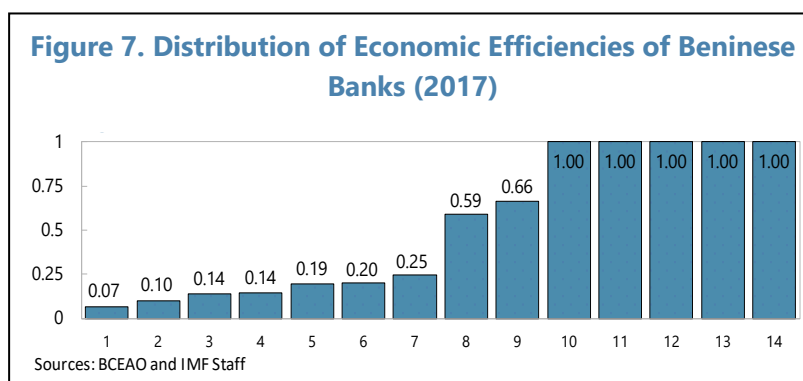
16.   Looking across different types and size of banking institutions, the least efficient entities in Benin were small and domestic banks. *Domestic* banks were the least efficient banks in

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[11] See Berg, Forsund, and Jansen (1992) for a description of the index and its use in DEA. Since this method requires a balanced panel data for all years under observation, the sample includes 10 banks domiciled in Benin, for which data was available.

[12] The analysis uses the publicly available balance sheet and income statement data, in addition to the information on bank branches and employees, published in BCEAO's annual reports: https://www.bceao.int/fr/publications?field_theme_publication_target_id=78
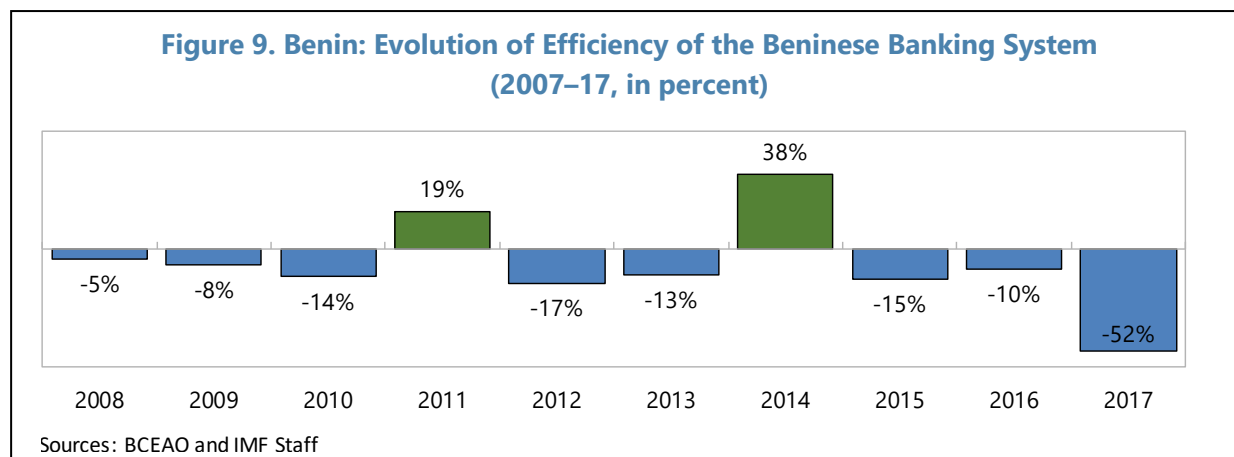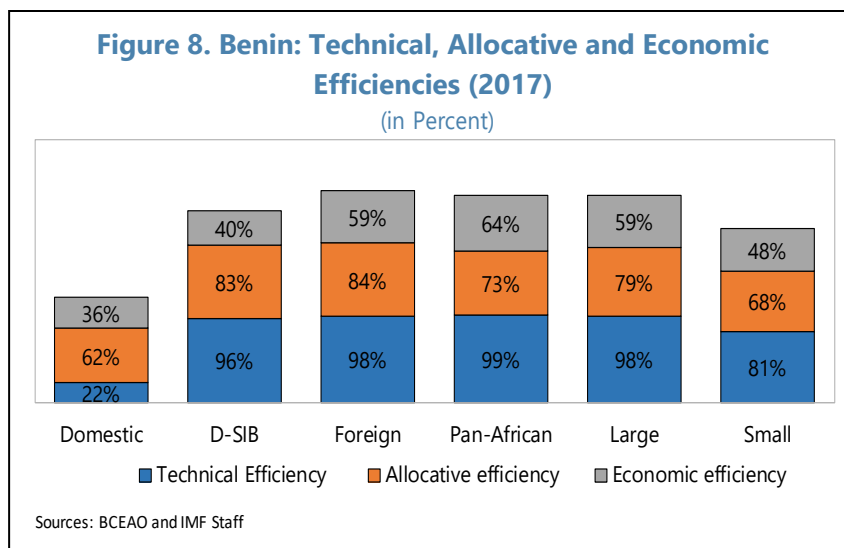
the Beninese banking sector. Regarding *small* banks, their economic efficiency was 48 percent, while their larger counterparts had an economic efficiency of 59 percent (Figure 8).
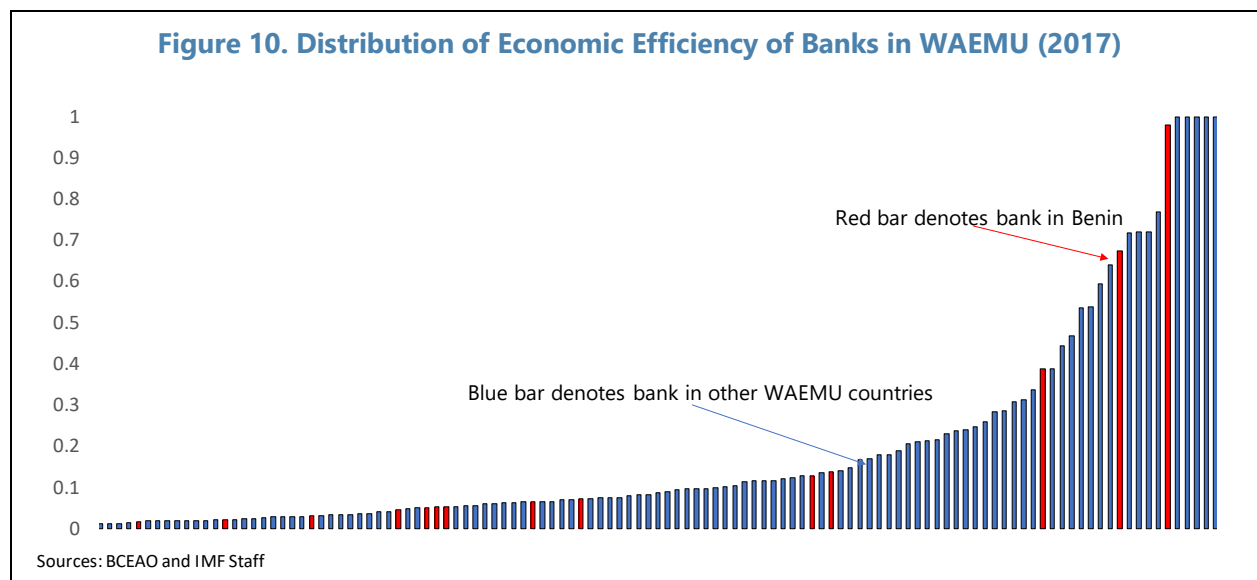
17.   Between 2007 to 2017, the efficiency of Beninese banks declined. The results of the Malmquist index show that, while economic efficiency increased in 2011 and 2014,

Figure 8. Benin: Technical, Allocative and Economic Efficiencies (2017)
(in Percent)

	Technical Efficiency	Allocative efficiency	Economic efficiency
Domestic	22%	62%	36%
D-SIB	96%	83%	40%
Foreign	98%	84%	59%
Pan-African	99%	73%	64%
Large	98%	79%	59%
Small	81%	68%	48%

Sources: BCEAO and IMF Staff

it deteriorated over all other years under observation, with particularly pronounced efficiency losses in 2017 (Figure 9). Looking at the evolution of efficiency across Beninese banks, only one bank recorded some improvements between 2007-17 while the efficiency of all other banks in the Beninese banking sector deteriorated. Results show no stark differences in efficiency evolution when distinguishing between the type and size of Beninese banks.

Figure 9. Benin: Evolution of Efficiency of the Beninese Banking System
(2007–17, in percent)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
-5%	-8%	-14%	19%	-17%	-13%	38%	-15%	-10%	-52%

Sources: BCEAO and IMF Staff

18.   Turning to the cross-country comparison, the regional DEA shows that banks in Benin were among the least efficient banking institutions in the WAEMU in 2017. In that year, 12 out 14 Beninese banks displayed a technical efficiency below 50 percent of that recorded by the most efficient banks in the region (Figure 10). No Beninese bank made part of the regional efficiency frontier, although one bank was very close to it. Based on this metric, it seems that the banking sector in Benin was among the least efficient in the region in 2017.

Figure 10. Distribution of Economic Efficiency of Banks in WAEMU (2017)

Red bar denotes bank in Benin

Blue bar denotes bank in other WAEMU countries

Sources: BCEAO and IMF Staff

D.   Sensitivity Analysis

19.   The paper conducts a sensitivity analysis to gauge possible impact of changes in the macroeconomic environment on banks' profitability. The purpose of the simulations is to estimate the response of the three components of bank income statement found to be key sources of vulnerabilities in the previous exercise: (i) provisions; (ii) interest expenses; and (iii) overhead costs. The analysis maps the impact of macroeconomic shocks on banks' net income and capital by applying econometric techniques to compute elasticities. The choice of the macroeconomic shock depends on the component considered: (i) Nigeria growth shock for the provision component; (ii) change in the BCEAO monetary policy rate for interest expenses; and (iii) change in the number of bank branches for overhead costs. The analysis is based on bank by bank data provided by the BCEAO, covering period 2005-2017.

20.   The sensitivity analysis relies on a simple accounting exercise supplemented with econometric estimations. First, various econometric models are estimated to relate macroeconomic shocks to specific income statement components. For robustness, regressions are conducted with both time series (using Benin banking sector's aggregate data) and panel series (using bank-by-bank data for Benin), and by changing the time period and the specifications. The results should be treated with caution and be considered as illustrative since they identify simple correlations, not causal effects (Figure 11). In a second step, scenarios are built by introducing the shocked component into the income statement, holding all other components constant.[13] The simulations yield an estimated impact on the capital adequacy ratio (leverage ratio, using non-risk weighted assets). The purpose of the exercise is to get a sense of the impact of the shocks and compare them; it is not to forecast accurately their effect on bank profitability. Finally, the paper

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[13] This is, of course, a simplifying assumption, since a shock may affect all categories of the income statement simultaneously.

carries out a reverse sensitivity analysis by calibrating the size of the shock necessary to bring down the capital adequacy ratio (leverage ratio) by 1 percent of non-risk weighted assets.

21.   The results of the sensitivity analysis can help identify the most vulnerable components of the income statement (Table 2).

- The analysis shows that a 1 percent decrease in Nigeria's growth rate would lead to a 0.79 percent decrease in the bank provisions to total asset ratio. For example, a deceleration in Nigeria's growth, similar to the episode experienced in 2014-2015 when the growth momentum slowed from 6.3 to 2.7 percent, is estimated to cause a 3 percent decline in the CAR of Beninese banks (holding other factors constant). In this regard, the provision component seems the most sensitive category of the income statement and calls for close surveillance in case of shocks.

- A 1 percentage point increase in the monetary policy rate would cause CAR to fall by 0.26 percent. This is large as well; nonetheless, the monetary rate has not shown large volatility in the past decade.

Figure 11. Correlations Between Macroeconomic Shocks and Income Statement Components

Sources: BCEAO and IMF Staff

- The analysis finds a more muted effect of growth in bank branches on bank's capital. Indeed, Beninese banks would need to increase the number of branches by 151 percent to cause their CAR to drop by 1 percent.
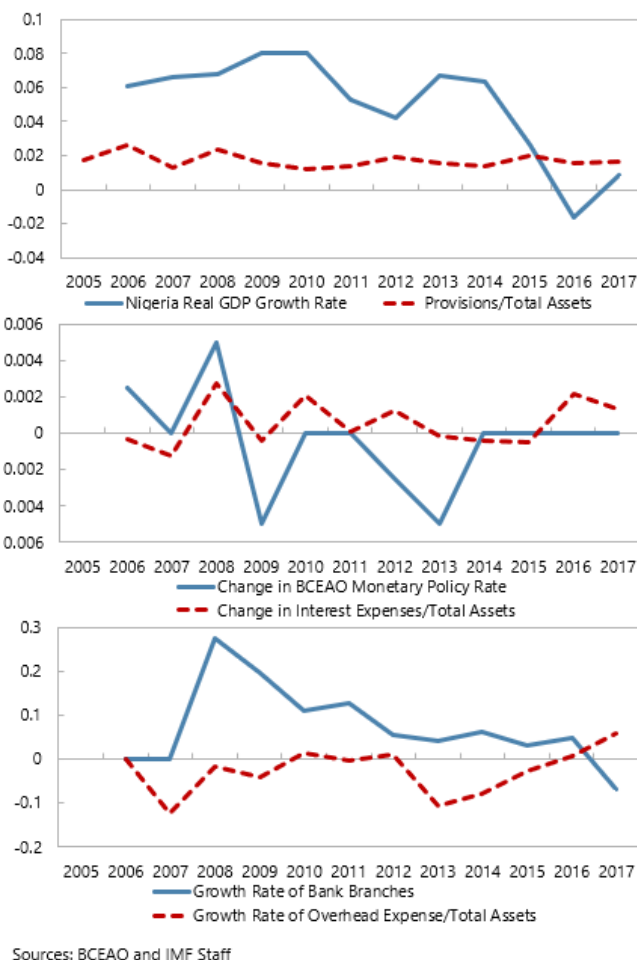
Table 2. Results of Sensitivity Analysis

Type of a Shock	Size of Standardized Shock	Sensitivity Analysis - Baseline			Impact on the Capital to Total Asset Ratio of the Aggregate Banking Sector in Benin	Reverse Sensitivity
		Impacted Variable				Size of Shock Necessary to Cause 1% Drop in CAR
		Variable	Period	Elasticity Coefficient		
Decrease in Nigeria's growth rate	1%	Provisions/Total Assets	2005-2011	-0.79	-0.79%	1.26%
Policy rate increase	1%	∆ Interest Expense/Total Assets	2007-2013	0.26	-0.26%	3.92%
Bank branch growth	10%	Overhead cost growth rate	2005-2017	0.16	-0.07%	151.0%

E. Conclusion

22.   This paper brings into focus the issue of weak profitability of banks in Benin. It identifies determinants of banks' profits, compares their efficiencies in generating profits and resource allocation with those of their regional competitors, and assesses the response of their profits and capital to shocks.

23.   The results of the income statement decomposition, DEA efficiency scores, and sensitivity analysis illustrate the difficulties faced by Beninese banks in generating profits and efficiently mobilizing resources. The income statement decomposition identifies high provisions, overhead expenses and cost of deposits as the biggest drivers behind the weak profitability of Beninese banking sector. These findings are corroborated by DEA efficiency scores, which find that Benin's banks are among the least efficient banking institutions in the region. Within Beninese banking sector, DEA results show that small and domestic banks are the least efficient banking institutions. The slight regression of the Beninese banking sector's efficiency in the past decade indicates no sign of convergence relative to regional peers. Finally, the results of the sensitivity analysis identify provisions as the most sensitive category of the income statement and calls for close surveillance.

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REVIEW OF THE BENINESE GOVERNANCE FRAMEWORK[1]

1.   Benin is perceived as facing multifaceted governance challenges that may adversely impact its competitiveness and attractiveness for foreign investors as well as its ability to achieve sustainable inclusive growth. The Worldwide Governance Indicators (WGI) show that Benin score low (-0.55) for the control of corruption (Figure 1).[2] In the 2019 Doing Business report, Benin scored 51.4 (out of 100), slightly above the WAEMU average (50.6) but below the SSA (51.6). According to the 2018 Global Competitiveness Report, Benin's index lies below the SSA average, and corruption is described as the second most problematic factor for doing business in the country (after constraints on access to financing). Finally, in the 2018 Transparency International Corruption Perception Index, Benin scored 40.0 (out of 100), above the Sub-Saharan Africa (SSA) average (32.3). There is an international evidence that corruption impacts economic performance by weakening the state's capacity to perform its core functions and by affecting drivers of potential and inclusive growth (see 2017 IMF Policy Paper "The Role of the Fund in Governance Issues—Review of the Guidance Note").

Figure 1. Governance Indicators, 2017 (re-scaled: 0=weak, 5=strong)
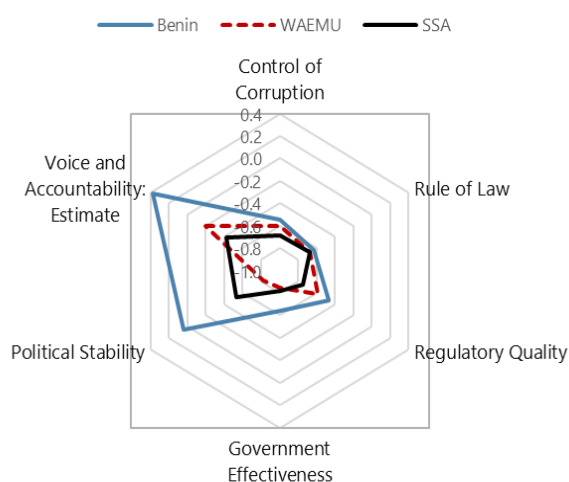
Sources: Worldwide Governance Indicators and IMF staff

2.   Nonetheless, governance indicators point to continuous progress in fighting corruption, demonstrating that the authorities' efforts are starting to pay off. The improvement over time is reflected in several indicators, such as the Transparency International Corruption Perception Index and the Worldwide Governance Indicator. To keep this momentum

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[1] Prepared by Mohamed Camara (AFR) and Sabrina Lando (LEG) with inputs from Mouhamadou Sy (FAD) and Gwenaelle Suc (FAD).

[2] International competitiveness and doing business indicators should be interpreted with caution since their methodology generates margins of error for each governance estimate and they are based on surveys of perceptions by enterprises, citizens, and experts. Estimates reflect the relative, not the absolute, performance of the country.

going, Benin should ensure the effective implementation of its recent reforms, in particular in the areas discussed in this paper.

3.   **Governance weaknesses exist in several state functions in Benin, requiring a comprehensive assessment.** This paper applies the IMF framework for enhanced engagement on governance adopted in April 2018, with a particular focus on fiscal governance, anti-money laundering, rule of law (the protection of property and contract rights), regulatory framework, and anti-corruption (see Table 1).[3] . Two state functions—central bank operations and financial sector oversight—are not covered by this paper, because they are regional responsibility and are examined by the IMF WAEMU consultation (the main conclusions are available in the IMF Country Report 19/90).

Table 1. Governance Weaknesses by State Function			
Fiscal governance	**Regulatory framework**	**Rule of law**	**AML/CFT**
• Revenue outcomes • Revenue institutions • Spending outcomes • Fiscal transparency • Procurement • PFM controls	• Trade facilitation • Ease of doing business • Public engagement • AREAER	• Contract enforcement • Property rights	• Entity transparency • Criminal justice • International cooperation • Preventive measures

A.   Fiscal Governance[4]

4.   **The tax administration is undergoing wide-ranging reforms to improve its efficiency and enhance revenue mobilization.** Some measures are particularly warranted to reduce the risks of fraud and corruption.

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[3] The new framework is presented in the policy paper available at: https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/04/20/pp030918-review-of-1997-guidance-note-on-governance

[4] Another important area, not covered in this paper, is public investment management (project selection and procurement), which was discussed in IMF Country Report No. 18/364–paragraph 21.

- *Recent reforms.* Several reforms have improved tax collection and tax compliance in recent years. These reforms include: (i) the continuation of the bancarization of tax payments; (ii) the rollout of the tax management system (SIGTAS) to improve operational transparency and contribute to the reduction of tax fraud; and (iii) the launch of electronic procedures to enable the electronic filling and payment of taxes.

- *Pending issues.* Despite the reforms, weaknesses in tax administration remain: the functions of internal control and audit are insufficiently staffed (with most activities limited to respond to requests from the hierarchy administration and taxpayers); and the computerization of procedures is limited. This increases the risk of fraud and illegal payments.

- *Recommendations.* The authorities could adopt a more risk-based strategy to increase the effectiveness of operations and controls, with a view to concentrating the actions of the tax services on cases where fraud presumptions are the strongest. In addition, the systematic use of automation in filing and payments processes could reduce contact with taxpayers and limit possible bribery.

5.   The consolidation of the Treasury Single Account (TSA) in Benin is a much-needed reform. The timetable provided for an operationalization of the TSA has been delayed due to technical and operational difficulties.

- *Reforms.* In last five years, several measures have supported the implementation of the TSA. They include: (i) the adoption of a regulatory framework for the TSA in 2015; (ii) the establishment of an IT infrastructure necessary to implement it; and (iii) a summary census of government accounts in commercial bank books in 2017 and updated in 2018.

- *Pending issues.* The implementation of the TSA has so far encountered several technical and operational difficulties, including delays in the repatriation of government accounts in commercial banks towards the TSA. This results in direct handling of funds and decentralized cash settlements that could result in a misuse of funds.

- *Recommendations.* The authorities should accelerate the implementation of the action plan to consolidate the TSA, while adapting the timeline given recent delays and bearing in mind the potential implications for the financial sector.

6.   The recent creation of autonomous public agencies, in charge of implementing investment projects, and directly supervised by the Presidency, could reduce fiscal transparency. Measures are needed to limit the fiscal risks and lack of transparency associated with these agencies.

- *Recent reforms.* Several reforms are ongoing in Benin to implement the PAG—among them, the creation of public agencies in charge of executing of public investment projects. So far, six agencies have been created.

- *Pending issues.* These agencies, meant to improve the management and execution of infrastructure projects, could pose challenges from a public financial management perspective. Possible issues include (i) a lack of transparency in fiscal reporting (their financial accounting is privately managed, and their information system is not integrated into the traditional public sector's information system); (ii) cash management (these agencies could hold accounts in commercial banks outside the TSA); (iii) monitoring (it may be difficult to monitor spending execution since the spending of these agencies will show as a fixed capital transfer from the budget), and (iv) weakened internal and external controls (no strict segregation of duties is prescribed throughout the expenditure process and responsibilities are not clearly laid down).

- *Recommendations.* Proper reporting procedures combined with consistent information and accounting systems between the agencies and the budget could ensure that the execution of the agencies' investment programs is well monitored by the services of the finance ministry. In addition, to ensure efficient cash management, cash managed by the public agencies should be part of the TSA. Clear procedures need to be defined to ensure proper exercise of responsibilities and accountability to the external auditor. Fiscal risks could be also mitigated by applying binding spending rules to these agencies (similar to those applying to the rest of the public administration).

7.   Enhancing the management of public investment is essential to support the government's infrastructure agenda. The legal framework for public investment is sound and comprehensive, but there is scope to enhance its implementation.

- *Reforms.* The authorities adopted a PPP law in 2016. Their public investment management framework was also subject to a PIMA evaluation in 2017. Subsequently, the authorities developed an action plan based on the recommendations, in line with the objectives of the Government Action Plan. The implementation of the plan will allow: (i) developing a legal framework that control all phases of the public investment management cycle, (ii) adopting decrees implementing the law on public-private partnerships (PPP); (iii) and an appointment of representatives of the procurement agency in line ministries to help better implement the law.

- *Pending issues.* Public investment in Benin suffers from low efficiency. The 2017 PIMA mission revealed deficiencies in the selection of projects—lack of transparency and no systemic use of selection criteria. Another problem is that the implementation of the public procurement law is not always effective, despite an a relatively exhaustive and up-to-date framework. This is partly because the public authority in charge of managing procurement does not have reliable statistics on public tenders and cannot effectively control the number of no-bid contacts. Overall, like in many low-income countries, these public financial weaknesses facilitate and create opportunities for fraudulent behaviors; they can also distort the allocation of public funds away from priority sectors.

- *Recommendations.* To address these issues, the priorities should be to (i) improve capital project selection (for instance the authorities should continue to apply and publish the selection criteria, improve the costing process, and require systematic feasibility studies); and (ii) ensure that public

procurement is conducted according to the law (the review of the of the quality of the information system is a good start).

B. Regulatory Framework

8.   In the area of trade facilitation, there is room to simplify and expedite procedures at customs. In recent years, numerous measures have been taken to boost the contribution of trade to growth. These measures are intended to improve the doing business environment and enhance competitiveness. But they have not fully addressed problems related to clearance formalities.

- *Recent reforms*. In the last five years, the main reforms have focused on: (i) developing a quicker and less burdensome computer-based process for import and export clearance; (ii) integrating customs and control agencies at the Cotonou port; and (iii) delegating its management to the Antwerp port.

- *Pending issues*. Despite these efforts, the OECD Trade Facilitation Indicators still signal several areas of weaknesses—in particular a lack of clarity and automation in the formalities required for importers and exporters. This lack of transparence could create a risk of negotiations, bribery, and illegal payments between customs agents and individuals seeking to circumvent the rules.

- *Recommendations*. To address these bottlenecks, the authorities could improve the access to and the transparency of information on procedures (including steps and deadlines). They could also promote their automation to avoid face-to-face interactions and reduce the average clearance time.

9.   The authorities are taking several steps to modernize the energy sector, which remains a bottleneck to growth. The main challenges relate to losses in power distribution and lack of competition in the area of production.

- *Recent reforms*. A deep reform of the power sector is ongoing in Benin through: (i) the signature of a performance contract between the national distribution company (SBEE) and the government; (ii) the opening of production to competition; (iii) the adoption of the Beninese-Togolese electricity code and the revision of Benin's electricity code that try to restore the financial sustainability of the distribution sector; and (iv) a comprehensive plan to increase power capacity, enhance management, and impose cost-recovery tariffs financed by the Millennium Challenge Account (MCA).

- *Pending issues*. Lingering problems faced by the energy sector in Benin include: (i) large technical and financial losses[5] in distribution reflecting meter trafficking, proliferation of

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[5] Technical losses refer to losses between electricity produced and electricity billed to customers. These could reflect technical inefficiencies in the operation of the electricity network but could also signal electricity thefts.

cobwebs, and attribution of the same number of policies to several customers; and (ii) a lack of competition and legal framework for power producers, which creates room for patronage in the procurement process. The two problems are related, since the financial difficulties of the distribution sector reduce incentives for Independent Power Producers (IPPs) to enter the market.[6]

- *Recommendations.* The authorities should accelerate the reforms initiated by the government through the MCA, as well as enable a more favorable environment for Independent Power Producers (IPPs). This will require addressing the financial deficit of the distribution company, including by imposing cost-recovery tariffs. Overall, these reforms would enhance competition, transparency, and performance in the electricity sector.

C.   Rule of Law

10.   Although Benin has made important strides in strengthening property rights and contractual rights enforcement, inefficiencies in the judicial system can result in weak enforcement of the law. Multiple reforms have been implemented in the past years to facilitate the issuance and protection of property, debt, and land rights. However, predictability and timeliness of enforcement remains an issue.

- *Reforms.* (i) The authorities have initiated several reforms to improve property rights and access to land in Benin, in particular through revisions in 2017 to the 2013 land code. These measures are aimed at: simplifying and accelerating the procedures for the acquisition of property rights; converting occupancy permits in real estate titles; establishing a national title register; lowering the cost in registering property; and improving the transparency in the land administration system. (ii) In addition, Benin being a member of the Organization for the Harmonization of African Business Law (OHADA) since 1995, the OHADA Treaty and its Uniform Acts provide a framework regulating commercial activities in Benin and establishing adjudication and arbitration mechanisms. Benin has operationalized in 2017 a Commercial Court to adjudicate commercial litigation and publishes its decisions online.

- *Pending issues.* Modernization of the investment framework and related judicial procedures remain key challenges in the protection of investments and contract enforcement. Despite the legislative reforms, in practice (i) property registration remains difficult, and disputes due to the lack of coherent enforcement of the land code remain; (ii) contract enforcement is reportedly weak; and (iii) the judicial process is perceived as inefficient. These weaknesses are largely due to lack of funding as well as the weak institutional capacity of the judicial system, which affect the efficiency of the courts and increase the susceptibility to corruption through bribery[7].

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[6] The losses and debt of the distribution company create uncertainties regarding investment returns on production.

[7] The 2019 Doing Business Report indicates that the time to enforce a contract through the courts stand, on average, for 750 days and costs 64.7 percent of the claim. The averages for Sub-Saharan Africa are estimated at 655 days and 42.3 percent.

- *Recommendations.* To facilitate access to and protection of property rights, priority should be given to effectively implementing the revised land code. Efforts to strengthen the operationalization of the newly created Commercial Court should focus on ensuring that the cases progress swiftly and challenges to decisions' enforcement are effectively addressed. Keeping trial costs transparent (clearly and effectively communicate trial costs) and publishing courts judgements will help improve transparency and confidence in the judiciary system.

D.   Anti-Money Laundering Regime (AML)

11.   Benin has taken important steps to strengthen its AML framework in order to detect, investigate and curb the laundering of proceeds of corruption. However, the implementation of the framework is still hindered by resource and capacity constraints on the ground.

- *Reforms.* In 2018, the government adopted an AML law transposing into national legislation the WAEMU uniform law and hence introducing new obligations that can assist anti-corruption efforts. The financial intelligence unit (CENTIF), which was created in 2006, has established cooperation channels between national and international counterparts, including the anti-corruption agency, and has joined the Egmont Group of financial intelligence unit in 2018.

- *Pending issues.* In spite of these efforts, gaps in the legal framework remain and implementation needs to be strengthened. (i) Due diligence measures related to domestic politically exposed persons (PEPs) do not include the family members and close associate of PEPs. (ii) In addition, it is unclear to which extent national and OHADA legislations allows for the timely access to accurate information on beneficial owners of legal entities. (iii) On implementation, the level of suspicious transaction reports received by the CENTIF remains low and only two banks have been inspected by the BCEAO's Banking Commission between 2016 and 2018. There is a need to ensure compliance of financial and non-financial institutions with the recently adopted AML law through risk-based supervision focusing on risks of laundering of proceeds of corruption. (iv) Finally, the CENTIF needs to build capacity to effectively carry out its mandate.

- *Recommendations.* Further efforts to strengthen the legal framework are needed, notably to extend due diligence measures to family members and close associates of domestic PEPs and ensure the transparency of beneficial ownerships. At the *national level*, the capacity and resources (financial, logistical and human) of the CENTIF should be strengthened. The supervision of sectors under the purview of national authorities identified as being exposed to corruption vulnerabilities should be stepped up, notably the real estate sector and money exchange bureaus. Benin underwent an assessment against the 2012 Financial Action Task Force (FATF) standard in March 2019 and should mobilize efforts to address the recommendations of the evaluation report to be published in December 2019. At the *regional level*, in line with the recommendations of the last WAEMU consultation, the BCEAO's Banking Commission should pursue its efforts to strengthen its risk-based supervision activities in order to ensure the effective implementation of AML measures in particular with respect to PEPs.

E. Anti-Corruption Framework

12.   Benin has progressively built an anti-corruption legal and institutional framework. However, meaningful steps need to be taken to address the gap between the framework and its effective implementation.

- *Reforms.* In 2004, Benin ratified the United Nations Convention against Corruption (UNCAC). In 2011, it adopted an anti-corruption law establishing the National Anti-Corruption Authority (ANLC), criminalized some acts of corruption and setting a legal basis for the asset declaration obligation, international cooperation and protection of whistle blowers. The Inspectorate General of Finance (IGF) has recently been made responsible for auditing government activities. A Court for the repression of economic and terrorism crimes was created in August 2018. Finally, a Law on Strengthening Public governance was passed by the Parliament in February 2019.

- *Pending issues.* Legislative and institutional weaknesses and capacity constraints are hampering the implementation of the anti-corruption framework. The ANLC lacks independence and its activity reports are not made publicly available. The 2001 anti-corruption strategy has not been updated Benin's UNCAC implementation review report adopted in 2017 also points to legislative gaps in the criminalization of acts of corruption and barriers to effective international cooperation for corruption-related efforts.

- *Recommendations.* The independence of the ANLC should be strengthened and its activity reports should be published, including with respect to denunciation received and referred to the prosecutor. A pragmatic anti-corruption strategy should be adopted by the government and resources mobilized for its implementation. Efforts to investigate corruption should be strengthened and   the court for the repressions of economic and terrorism crimes operationalized. Finally, Benin should ensure that it meets its obligations under the   UNCAC, including with respect to the upcoming implementation review.

13.   The asset declaration regime should be brought in line with best practices and effectively enforced to support efforts to detect illicit enrichment and other corruption offenses. An enforceable, transparent and comprehensive asset declaration regime, combined with an effective AML regime, can be an important tool in detecting conflicts of interest and acts of corruption, in particular illicit enrichment.

- *Reforms.* The Constitution requires that the President and the members of the Government declare their assets to the Audit Court when taking and leaving functions. A 2011 law and 2012 decree expand the obligations to other officials and further establish the modalities of the regime. According to statistics gathered by the ANLC from the Audit Chambers, as of October 2018, most officials have declared their assets.

- *Pending issues.* While the high compliance level is encouraging, the lack of legislative guidance on the implementation of the declaration obligations damages the credibility of the regime. In

addition, no sanctions are currently imposed for failure to comply with the declaration obligations and no verification of the declarations is conducted.

- *Recommendations.* Necessary legislative amendments should be made to (i) require the declaration of assets held directly and indirectly, in Benin and abroad, (ii) bring family members and close associates under the regime, and (iii) require the publication of the declaration for the top officials. Asset declarations should be verified, and sanctions imposed in case of failure to declare assets. Finally, names of officials who have not filed their declarations could be published.