Ghana: Selected Issues Paper

GHANA

SELECTED ISSUES PAPER

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GROWTH STRATEGY FOR GHANA¹

Ghana has achieved impressive development gains over the last decades, with rising incomes, lower poverty, and better health, education, and gender outcomes. However, growth has recently become less inclusive, with high inequality and slower poverty reduction. To address these challenges, the authorities are pursuing a “Ghana beyond Aid” development strategy centered around agricultural modernization and export-led industrialization. Accelerating productivity growth calls for fostering competition, improving the business environment, strengthening human capital, taking advantage of growing regional markets and industrial policies that prioritize sectors that can export and innovate and where Ghana could achieve economies of scale. Consistent and predictable government policies can help increase long-term investment and improve public spending effectiveness.

A. Introduction

1. **Ghana has significantly improved living standards in recent decades.** Incomes per capita more than doubled between 1992 and 2018, with average annual per capita growth of 3.2 percent. Poverty was reduced dramatically, with the poverty headcount at US\$1.90 a day (2011 PPP) declining from 50 percent of the population in 1991 to 12 percent in 2012. This was accompanied by major improvements in life expectancy, health and education, and a reduction in gender disparities, which resulted in Ghana’s Human Development Index (HDI) increasing from 0.46 to 0.59.
2. **Ghana has been one of the top performers in SSA, although economic convergence with advanced economies has remained slow.** Looking at the past three decades, Ghana’s per capita income growth scored in the top quintile among Sub-Saharan Africa countries. The country also saw progress in income convergence with advanced economies, with Ghana’s per capita income as a share of US per capita income increasing from 5.2 percent in 1990 to 7.6 percent in 2018, in PPP terms. This represents a marked improvement compared to previous decades when there had been no meaningful convergence. However, it remains a slow catching up—for example, if income convergence were to continue at this rate in the future, it would still take almost 200 years to fully converge with US income levels.
3. **Economic growth has become less inclusive in recent years with growth relying more on extractive industries such as gold mining and oil and gas extraction.** These industries tend to be largely foreign-owned and capital intensive, and thus generate relatively few jobs in the local economy. After the steady decline observed in previous decades, this period also saw slower poverty reduction, with the poverty headcount at US\$1.90 a day increasing from 12 to 13.3 percent between 2012 and 2016. In addition, inequality continued to rise gradually, with the income Gini coefficient increasing from 38.4 to 43.5 between 1991 and 2016, and the ratio of average income earned by the top 10 percent of people in the income distribution relative to the bottom 10 percent increasing from 11.6 to 20.1 over the same period.

¹ Prepared by Frederico Lima (AFR).

Figure 1. Ghana: Economic Growth and Living Standards, 1990–2017

Ghana experienced robust GDP per capita growth over the past three decades...

Ghana: GDP per capita
(Constant 2011 \$PPP)

Sources: World Bank WDI and IMF staff calculations.

...together with a substantial improvement in living conditions.

Human Development Index in Ghana vs. SSA

Sources: Human Development Report and IMF staff calculations

There has been steady progress on education, health and life expectancy...

Life Expectancy at Birth
(Years)

Sources: UN Population Division.

...while gender disparity was significantly reduced.

Gender Inequality Index in Ghana vs. SSA
(Higher numbers reflect more inequality)

Sources: Human Development Report and IMF staff calculations.

However, growth has become less inclusive in recent years, with high inequality...

Ghana: Income Inequality

Sources: World Bank Poverty & Equity database and IMF staff calculations

...and slower poverty reduction.

Ghana: Poverty

Sources: World Bank Poverty & Equity database and IMF staff calculations.

4. The authorities' "Ghana beyond Aid" strategy addresses these challenges by targeting a rapid growth acceleration. The strategy aims to bring the country from lower- to upper-middle income status within the next decade and draws inspiration from countries such as Thailand and Malaysia, which followed high growth trajectories beginning in the early 1960s while departing from similar initial conditions as Ghana (such as a large agricultural sector or being a commodity exporter).

5. Rapid growth would be achieved through agricultural modernization and export-led industrialization. The "Ghana beyond Aid" objective is to deliver large productivity gains by developing manufacturing, modernizing agriculture, improving human capital and technological capacity, investing in public infrastructure, and ultimately exporting higher value-added products such as processed agricultural and mineral products. The government also intends to double oil and gas production over the coming years, mainly through the exploration of new oil fields such as the Deepwater Tano Cape Three Points block (DWT/CTP), as well as to continue expanding the mining sector, which would involve sustaining Ghana's recently acquired status as Africa's top gold producer and ramping up production of other minerals such as bauxite, iron ore and manganese.

B. Historical Drivers of Growth in Ghana

6. The main contributors to economic growth in Ghana in recent decades have been labor supply increases and productivity improvements. Using the growth accounting methodology developed in Klenow and Rodriguez-Clare (1997) and Hall and Jones (1999), it is possible to decompose real GDP growth into the contributions of employment, human capital, physical capital and (unobserved) total factor productivity.² This analysis suggests that an expansion in effective labor supply, due to increases in employed population and human capital, explains roughly half of GDP growth since 1990. Another third of GDP growth is accounted for by increases in total factor productivity, while the remainder can be attributed to the accumulation of physical capital.

² The growth accounting analysis assumes a Cobb-Douglas aggregate production function. Taking logs and differencing over time:

$$\Delta \ln Y_t = \Delta \ln A_t + \alpha \Delta \ln K_t + (1 - \alpha)(\Delta \ln H_t + \Delta \ln L_t)$$

where Y_t represents aggregate output, L_t is employment, H_t is average human capital per worker, K_t is the stock physical capital and A_t is (unobserved) total factor productivity (TFP). We use data from the Penn World Tables v9.0 (Feenstra et al., 2015), and calibrate the capital share α to equal 0.4 as in Geiger et al. (2019).

7. Productivity growth appears to have been due primarily to structural transformation and rising agricultural productivity, while productivity in manufacturing and services has remained stagnant (Figure 2). To understand the forces behind productivity growth, we follow McMillan et al. (2014) and Timmer et al. (2015) and further decompose labor productivity growth into components due to within-industry productivity growth and structural change.³ The former reflects increases in labor productivity in specific industries, while the latter reflects the reallocation of labor from less to more productive industries. In the case of Ghana, we find that since the early 1990s aggregate labor productivity increased because of labor shifting from agriculture into services, which had relatively higher productivity levels on average,

³ We decompose the percent change in aggregate labor productivity y between periods t and 0 using the equation:

$$\Delta y_t = \sum_j \left[\frac{y_{0,j}}{y_0} \right] (w_{0,j} \Delta y_{t,j} + \Delta w_{t,j} + \Delta w_{t,j} \Delta y_{t,j})$$

where $y_{t,j}$ is labor productivity in industry j in period t , and $w_{t,j}$ is the employment share in industry j in period t . The first component inside the square brackets reflects the increase in aggregate labor productivity due to within-industry productivity improvements, while the second reflects structural transformation. The third component can be thought of as a residual that captures whether labor is on average moving to rising productivity sectors. We use employment data from the Ghana Living Standards Survey III for 1992 and the Ghana Labor Force Survey 2015, and we take value added data from the national accounts, measured at constant 2013 prices. Mining employment data comes from Amponsah-Tawiah and Dartey-Baah (2011) and refers to the year 1995.

a phenomenon that is closely associated with urban migration. There were also large increases in value added per worker in agriculture. However, like other fast-growing African economies, Ghana's manufacturing sector remained underdeveloped, accounting for just 11 percent of employment. Moreover, labor productivity in manufacturing and services is still very low compared to the rest of the world and remained stagnant over the past decades (Osei and Jedwab, 2017).⁴

8. Extractive industries have also been a major driver of growth. Ghana is endowed with significant mineral resources such as gold, bauxite, manganese, diamonds, and oil and gas. The

country holds an estimated 3.1 percent of the world's gold reserves according to the Extractive Industries Transparency Initiative (EITI), and output has grown in recent years, with Ghana overtaking South Africa as Africa's largest gold producer in 2018. Ghana has also significant offshore oil and gas reserves. The Jubilee Field, discovered in 2007, is among the largest offshore oil discoveries in West Africa in recent decades, and is estimated to hold between 0.6 and 1.5 billion barrels. Exploration of new oil fields, such as the Pecan field which was discovered in 2012 and estimated to hold up to 334 million barrels, will likely contribute to sustain oil production over the next years. Extractive industries have grown rapidly in recent years, driven by high international prices and the start of oil production in 2010, and now account for about two-thirds of merchandise exports.

Ghana: Commodity Exports
(Billions of constant 2012 USD)

C. Policies to Increase Medium-Term Growth

Context

9. The “Ghana beyond Aid” objective is to accelerate growth by significantly increasing productivity. The strategy takes inspiration from growth “miracles” in East and South East Asian countries, which managed to sustain rapid growth over several decades. Their strong performance relied on export-led industrialization models that combined structural change with large within-industry productivity increases (Timmer et al, 2015). As observed in the previous section, this stands in contrast with Ghana's experience in recent decades, with an under-developed manufacturing sector and stagnant productivity in manufacturing and services, a dynamic that is also observed

⁴ The literature finds somewhat different roles for structural change in Ghana, depending on data sources, methodology and the time period under analysis. Similar to us, Osei and Jedwab (2013) find that structural change contributed half of labor productivity growth between 1992 and 2010, mostly from the employment shift from agriculture into services. However, Geiger et al. (2019) find a smaller role for structural change over the same period (about 30 percent), reflecting a slightly higher estimate for manufacturing productivity growth in their dataset.

across the region (Osei and Jedwab, 2017; Diao et al., 2017). Increasing productivity in Ghana will depend on reversing this trend going forward.

10. Replicating the East and Southeast Asian models of manufacturing-led growth could be challenging.

Many of these countries specialized in narrow ranges of manufactures at early stages of their growth acceleration. These manufactures, often low-skill and labor-intensive, were used as a springboard for rapid economic growth, and were later followed by gradual efforts towards export diversification. However, attempts across Sub-Saharan Africa to follow the same route have had mixed success (e.g., Rodrik, 2016a). For example, nascent efforts to establish textiles and garment industries, often premised on inexpensive wages, have not taken off as fast as originally envisaged and still face strong competition from higher-wage Asian economies, often as a result of already established economies of scale (e.g., Barrett and Baumann-Pauly, 2019). In addition, trends towards automation and pressures to respond to rapidly shifting consumer demand may be creating incentives to bring some manufacturing activities closer to consumers in advanced and emerging economies (e.g., McKinsey, 2018).

11. Sustaining rapid growth in Ghana is likely to require innovating from established growth models. Manufacturing played a key role in Asian growth “miracles” in part because it allowed countries export to large consumer markets without compromising their terms-of-trade advantage (Rodrik, 2005). Knowledge and technology transfer were relatively easier in manufacturing, and countries could achieve economies of scale and become competitive in narrow industries without necessarily becoming as productive in other sectors. In addition, manufacturing tended to be labor-intensive, and was thus capable of absorbing and lifting out of poverty large swaths of the population. These factors suggest that the “Ghana beyond Aid” focus on export-oriented manufacturing remains essential to achieve a growth acceleration in Ghana. However, it is likely that this strategy will have to be complemented by efforts to simultaneously increase productivity in other sectors such as agriculture and services (Rodrik, 2016b).

Pursuing Export-Oriented Industrialization

12. The “Ghana beyond Aid” agenda envisions a significant increase in manufacturing output and exports. The authorities’ 10-point plan for industrial transformation designates several strategic anchor industries including agroprocessing, pharmaceuticals, integrated aluminum and steel industries, vehicle assembly, textiles, petrochemicals, industrial salt, industrial starch and oil palm processing. The plan also includes a stimulus package to support distressed but viable firms by providing financing, technical assistance and facilitating access to markets, as well as the government’s flagship One District, One Factory (1D1F) program, which offers similar support with the aim of establishing at least one factory in each of the 216 districts in Ghana.

13. Export diversification has been associated with

stronger economic growth. An extensive academic literature finds a link between diversification and growth (e.g., Frankel and Romer 1999; Hausmann et al., 2007; IMF, 2017). Korea, where an early focus on labor-intensive manufacturing exports including textiles and assembly later gave way to more high-value added exports in equipment, cars and IT, is a case in point (e.g., Dornbush and Park, 1987). The prices of Ghana's three largest commodity exports (cocoa, gold and oil) are somewhat uncorrelated in international markets, which mitigates the effect of commodity price volatility on the economy. Further diversifying the export base to include more manufactured products could contribute to a more resilient and inclusive economy.

Ghana: Correlation of Key Export Prices
(1991-2019)

	Gold	Oil	Cocoa
Gold	1		
Oil	0.41	1	
Cocoa	0.19	-0.08	1

Note: Based on YoY % growth of inflation-adjusted prices.

14. Tapping a growing regional market can contribute to industrialization efforts. The Asian growth "miracles" benefitted from a largely benign global environment, and access to markets, capital and technology from advanced economies was a major ingredient in their export-led development strategies (Rodrik, 2005). The existence of regional powerhouses – first Japan, then China – that were open to trade also helped spur the development of regional value chains. In the case of Ghana, while intraregional trade remains relatively low, regional markets in ECOWAS and across Sub-Saharan Africa are developing fast, owing to rapid population growth and rising incomes (IMF, 2019a). Ongoing policy efforts to decrease trade barriers like the African Continental Free Trade Area (AfCFTA) create unique opportunities to expand trade across the region, especially with its secretariat located in Ghana.

15. Investments in education systems and teaching are also crucial to a successful industrialization strategy.

Human capital accumulation is widely seen as significant driver of growth, helping to create a skilled workforce and increase the supply of entrepreneurs who can run more productive firms (e.g., Banerjee and Duflo, 2005; Gennaioli et al, 2013). It is also a dimension where Ghana has made remarkable progress in recent decades. Enrolment rates have increased across all education levels, and gender disparities in access to education have been greatly reduced. Public spending on education has been a government priority, as exemplified by the authorities' commitment to universal high school enrolment through the Free SHS flagship program. However, despite higher enrolment, learning outcomes remain subpar, with Ghana comparing poorly in the region on student performance and the 2015 Early Grade Reading Assessment finding that half of 2nd grade students could not read a single word, regardless of language (Ghana Education Service et al., 2015). Improving learning outcomes will be important going ahead, for example by reforming education systems and making teaching more effective (World Bank, 2018a).

Harmonized Student Test Scores Across Countries
(300 is minimal attainment, 625 is advanced attainment)

Sources: World Bank Human Capital Index and IMF staff calculations.

16. Countries that experienced growth accelerations also often used industrial policies to support nascent manufacturing sectors. The rationale for industrial policy is that some industries with high growth potential should be protected when they are subject to externalities that prevent them from taking off, such as market imperfections or economies of scale (e.g., Dornbush and Park, 1987; Greenwald and Stiglitz, 2006; IMF, 2019c). A related argument is that certain activities require government investments to facilitate entry by individual entrepreneurs, for example because they are excessively risky or require coordinated policy actions across multiple dimensions (e.g., Murphy et al., 1989; Rodrik, 1995; Mazzucato, 2015). These policies shelter infant industries as they develop and can take different forms depending on the local context and institutions, including production subsidies, tariffs and licensing requirements that create sheltered domestic markets, export subsidies, tax incentives, local-content rules, subsidized or targeted credit, special investment zones, wage repression, and exchange rate policy.

17. Cross-country experience suggest that industrial policy should prioritize sectors with potential to export and innovate and where Ghana has a comparative advantage. It is important to prioritize sectors with most room for continued innovation and expansion, in particular by encouraging competition between firms within each sector (IADB, 2014; Aghion et al., 2015; Cherif and Hasanov, 2019). Given budgetary constraints, it is necessary to limit financial support (including via tax incentives) to select industries and focus on structural reforms that eliminate barriers to manufacturing growth, such as access to land, ease of doing business, improving power supply reliability and increasing competition in the banking sector (e.g. IMF, 2019b). In general, sectors where Ghana has a clear comparative advantage and that can eventually be competitive without government support should be prioritized.

Modernizing Agriculture

18. Agriculture remains a key driver of the Ghanaian economy. Although its relative share of employment has been steadily declining, agriculture still represents 20 percent of Ghana's GDP and about 35 percent of total employment. Moreover, rising agricultural productivity also contributes to higher agricultural wages, and thus to poverty reduction, especially in rural regions.

19. There is still a large, untapped potential to increase agricultural productivity. Despite improvements over the years, agricultural productivity remains low in Ghana (and in SSA in general) compared to non-SSA countries, and there are large gaps between actual and potential yields (MOFA, 2017). These gaps are caused by several factors including low uptake of fertilizer and improved seed varieties; a reliance on rain-fed agriculture; low level of mechanization and challenges in access to finance, especially for long-term, "patient" capital investments; and low farmer human capital, especially among smallholder farmers who represent the majority of farm holdings across the country (90 percent of farm holdings are less

than 2 Ha in size). Catching-up to world productivity levels would transform agriculture in Ghana, and significantly boost inclusive growth (World Bank, 2018b). Increasing returns in the agriculture sector in a sustainable way can also strengthen incentives to prevent farmers from shifting towards small scale gold mining, which often has detrimental effects on the environment.

20. Opportunities in agriculture are present in both traditional (e.g., cocoa) and non-traditional (e.g., cashew nuts, palm oil) crops in Ghana. Cocoa production remains a major activity in Ghana. Despite being one of the largest producers in the world, most of the chocolate value chain is located outside the country and

closer to consumer markets such as the EU and US. This is unlikely to change over the medium-term despite fast population growth in the region, because chocolate is perceived as a luxury good and its consumption is nonlinearly related to income. Nevertheless, there could still be significant growth opportunities in the sector by increasing cocoa yields and first-stage cocoa bean processing in Ghana, and improving certification (e.g., for fair trade and high-quality beans). These steps are already

being pursued by the COCOBOD, the government controlled cocoa board, in partnership with the African Development Bank.⁵ Ghana also has strong potential to increase production in other crops such as rice, cashew nuts, rubber and palm oil, where yields remain low by international standards, and strong regional and global demand is more likely to pick up over the next decades (e.g., World Bank, 2013). Proximity to the large EU market and favorable weather seasonality also suggest opportunities to export fruit and vegetable-based products, as well as to substitute food imports.

Chocolate consumption and Income per capita

21. Targeted government support can complement private-sector investment to modernize agriculture. High-productivity agriculture is capital- and resource-intensive (especially water and energy), so ensuring these factors exist in abundant and cheap supply is crucial. In addition to ongoing energy and financial sector reforms, government efforts have included investing in infrastructure and targeted agriculture subsidies, of which the Planting for Food and Jobs (PFJ) initiative is one example (MOFA, 2017; IMANI, 2017). The program provides inputs such as fertilizer and improved seed varieties through a private sector-led market network at subsidized prices and raises awareness among farmers on how to use them. Beneficiaries have the option to pay half of input costs upfront and the remaining half at the end of the harvest, and the program is targeted at smallholder farmers only, with a limit on the volume of subsidized fertilizers to a maximum of 2 Ha land. Ideally, these subsidies would be gradually scaled down over time without affecting input take-up rates, so it is important to combine them with other reforms that reduce input price markups and ensure steady and timely input supply (Houssou et al., 2018; World Bank, 2018).

⁵ <https://www.afdb.org/en/documents/ghana-ghana-cocoa-board-project-summary-note>

22. Regional markets offer huge potential for agriculture and agro-processing industries in Ghana. In addition to traditional markets in the EU and the US, a growing urban, middle-class population in the region will create rising demand for higher value-added foods like meat, dairy, fish and processed foods (e.g., Tschirley et al., 2015). However, for local production to compete with foreign brands it will be necessary to develop the local food value chain so that it can deliver high food-quality standards. This will require investments in storage, transport, distribution and retail networks, improvements in marketing and branding, and better risk management practices. It is also important to integrate smallholders into the value chain, given the prevalence of small-scale farming, which could be done through farmer cooperatives and contract farming, for example, as well as by facilitating a gradual shift to medium-scale farms (e.g., World Bank, 2018).

Improving the Business Environment

23. Continuing efforts to improve the ease of doing business in Ghana will contribute to increasing growth. Market-based allocations, predictable legal and policy frameworks, and low corruption are widely seen as pre-conditions for growth (e.g., Rodrik 2005, Acemoglu and Robinson 2013). A favorable and improving business climate in Ghana has certainly contributed to growth over the past decades, although there are still areas where it could do better. For example, in the recent 2020 Doing Business Report, Ghana compares favorably against the Sub-Saharan African average.⁶ When compared to upper-middle income countries, Ghana scores well in dimensions like starting a business, access to credit, access to electricity and protecting minority investors, but is behind on other categories such as resolving insolvency, trading across borders, and paying taxes.

Ghana: Doing Business 2020

(Higher values represent better scores)

Sources: 2020 Doing Business Report and IMF staff calculations.

24. Ongoing structural reforms to encourage formalization and digitalization can also help improve the business environment. Streamlined customs procedures at the revamped Tema port may facilitate cross-border trade by reducing the cost and time requirements of documentary compliance, a contributing factor to Ghana's lower score in this dimension. In addition, the introduction of unique digital addresses for every location across the country through the National Digital Property Addressing System (NDPAS), which was launched in 2017 and is expected to be completed in 2020, could contribute significantly to increasing the size of the formal economy. Unique addresses will allow businesses to locate clients more easily, which in turn can support growth in online and financial services. Linking these addresses to property and credit registries could also help improve land tenure and reduce property title disputes. Finally, digital addresses may

⁶ Survey-based indicators reflect investors' perceptions on the business environment.

increase tax collection by improving information on business location and registration. Ongoing plans to digitize tax and judicial procedures and health records, introduce national ID cards and expand mobile banking could also have a significant positive impact on the ease of doing business.

25. Reducing the public sector's gross financing needs would also help re-orient domestic savings and foreign capital towards local entrepreneurs. Business surveys consistently identify the high cost of capital and limited access to “patient”, long-term credit as two main bottlenecks to the growth of local manufacturing firms. This contrasts with the large capital inflows to Ghana in recent years, in line with the pattern observed across the broader Sub-Saharan Africa region (IMF, 2018). These inflows have largely been absorbed by the extractive sector, including mining and oil and gas, and by large fiscal deficits, with only limited foreign capital targeting domestic manufacturing. The problem is compounded by the large domestic financing needs of the public sector which crowd out private-sector growth, which remains anemic despite a sweeping clean-up of the financial sector.

D. Conclusion

26. Achieving rapid and inclusive growth is important for Ghana. Many young Ghanaians are entering or will enter the labor market in the coming years. This is a unique growth opportunity for Ghana, but also poses a challenge of creating an economy that generates enough well-paying jobs to accommodate this growing labor force. The authorities are also seeking to diversify away from commodities to reduce Ghana's exposure to the commodity cycle and make its economy more resilient and inclusive.

27. A key lesson from growth accelerations in other countries is that it is crucial to achieve economies of scale. In most cases, rapid economic growth required achieving export success in specific sectors. This was dependent on gaining economies of scale, which allowed those sectors to become competitive in world markets, driving exports and employment expansion in the domestic economy.

28. Consistent and predictable government strategy increases investment and fosters a more efficient use of public resources. Ghana's political stability and democratic credentials are now firmly established, and the authorities rightly view them as leading factors in attracting foreign investment. However, in the past the country has been associated with a low rate of project completion once governments change. Long-term planning and consistent implementation can increase policy predictability and contribute to higher investment and more effective use of available resources.

29. Government support should focus on sectors with potential to export and innovate. Supporting sectors instead of individual firms encourages competition between firms, which can contribute to a stronger, innovative and more dynamic private-sector. It is important that performing firms be rewarded, and nonperforming firms eventually be weaned of government support, to preserve scarce fiscal resources. This can be done through transparent and objective targets, some of which may be set as a function of export performance.

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A PUBLIC SECTOR BALANCE SHEET FOR GHANA¹

“The management of public funds, assets and liabilities, including natural resources, and fiscal risks in the country shall be conducted in a prudent way, with a view to maintaining fiscal sustainability” (PFM Act, 2016, Fiscal Policy Principle).”

A. Introduction

1. Public sector balance sheets can improve fiscal policies and economic growth. A public sector balance sheet (PSBS) displays in one document the assets and liabilities of public sector institutions. This may encourage better management of public sector assets and induce earlier action to address fiscal vulnerabilities and risks, particularly those of public corporations. PSBSs can also improve fiscal governance and transparency. Greater certainty over the public sector’s financial situation and less volatility in fiscal outcomes due to preemptive action to reduce fiscal vulnerabilities can lead to lower sovereign interest rates and higher growth. Better management of public sector assets can also increase fiscal revenues, providing more resources for priority investment in schools, roads, and hospitals.

2. The authorities are taking steps to develop a broader picture of Ghana’s public finances. The 2016 Public Financial Management (PFM) Act calls for the prudent management of public funds, assets, and liabilities (GoG 2016). To operationalize this principle, the PFM regulations require the Controller and Account General (CAGD) to prepare a balance sheet showing the consolidated assets and liabilities of all public funds for the 2020 fiscal year (GoG 2019a). This will broaden the scope of the current balance sheet of the consolidated fund (central government budgetary unit) to include the assets and liabilities of internally generated funds (e.g., hospitals and universities), statutory funds, and donor funds. Looking beyond the central government, the PFM regulations also require public corporations to submit financial reports to the relevant public authorities, including annual audited financial statements. Moreover, the Ministry of Finance has begun compiling and publishing information on public corporation financial performance in an annual State Ownership report.

3. With these aspects in mind, IMF staff has created public sector balance sheet (PSBS) for Ghana. The PSBS includes the consolidated fund, the social security fund, public non-financial and financial corporations (state-owned commercial and development banks and the Bank of Ghana). The public sector is smaller than that of peers (Kenya, Tanzania, Uganda), with total assets of 67 percent of GDP in 2017, on a consolidated basis, compared to an average of 99 percent of GDP for peers. Estimated central government fixed assets are exceptionally small, perhaps reflecting an undervaluation of infrastructure assets. Natural resources account for a fourth of total assets. Financial and nonfinancial public corporation hold 90 percent of public sector fixed assets. On the liability side, total public sector liabilities were 88 percent of GDP in 2017, compared to central government gross debt of 57 percent of GDP. Public corporations’ liabilities account for most of the

¹ Prepared by Gomez Agou (AFR) and John Ralyea (FAD).

difference. The difference between assets and liabilities left Ghana's public sector static net worth at negative 21 percent of GDP, somewhat lower than that of peers. A number of fiscal policies undertaken in 2018 and early 2019 likely have had a further material impact on the magnitude and allocation of the public assets and liabilities across institutions (e.g., recognition of losses on liquidity support to commercial banks by the central bank reduced the central bank's equity, lowering the public sector's net worth).

4. The paper is organized as follows. Section B reviews the strengths and weaknesses of public sector balance sheets and highlights some benefits to Ghana of developing one. The information sources and the methodology for creating the PSBS for Ghana are presented in Section C. Section D provides an overview of Ghana's 2017 PSBS and its components. Section E identifies some caveats. Section F discusses select policies undertaken in 2018 and 2019 through the lens of a PSBS. Section G concludes with some recommendations for improving the quality and value of Ghana's PSBS.

B. Public Sector Balance Sheet

5. The government's fiscal analysis and policy have a very narrow focus in Ghana. Fiscal statistics and analysis concentrate on the consolidated fund, which is the central government budgetary unit and a subset of the central government (Red cell in Figure 1). This leaves out other elements of the central government such as extrabudgetary and social security funds. Fiscal statistics also fall well short of general government, which includes local governments, not to mention the whole public corporation sector. Moreover, fiscal policy focuses heavily on the central government budgetary unit's deficits and debt. Therefore, public sector activity is not analyzed comprehensively. Without comprehensive coverage, the fiscal stance may not be assessed accurately, unrecorded government liabilities are more likely to surface unexpectedly, incentives exist to circumvent the fiscal accounts; and the transparency of fiscal policy is impaired (IMF, 2007).

6. A public sector balance sheet (PSBS) provides a framework for comprehensive analysis of fiscal policies and risks (IMF 2018). The PSBS brings together all the accumulated assets and liabilities that the government controls—what governments own and what governments owe.² The PSBS extends the perimeter of institutional coverage from the central or general government to the entire public sector, bringing in public corporations, including the central bank. The IMF's Government Financial Statistics Manuals (GFSM) provide the underlying structure for the construction of the balance sheet.³

7. Ghana would benefit from developing a public sector balance sheet. Balance sheets can enhance policymakers and the public's understanding and awareness of the public sectors financial strengths and vulnerabilities, potentially leading to better policy decisions.

- A public sector balance sheet presents public financial information in one place allowing for more informed decisions about and transparency of fiscal policies. For example, public sector balance sheets highlight the value of natural resources, which in Ghana's case are material. If managed properly, they can provide future benefits in the form of higher growth and financing. However, it is hard to make informed decisions about their use without a good idea of their values.
- The size of public assets can be relevant. Ghana's largest public corporations hold assets equivalent to 50 percent of GDP. Are these entities generating adequate returns for the central government in the form of taxes and dividends? The October 2018 Fiscal Monitor shows that better management of public assets could yield up to 3 percent of GDP in additional revenue per year for a group of mostly advanced economies (IMF 2018).
- Another reason for Ghana to embrace public sector balance sheet analysis is that balance sheet strength matters for macroeconomic stability and economic growth. Countries with stronger balance sheet positions on average face shorter and shallower recessions and pay lower interest on their debt (IMF, 2018). Also, subject to appropriate safeguards, individual institutions with healthy balance sheets can leverage them to finance growth-enhancing investments. Without a public sector balance sheet, a large degree of uncertainty will exist over the strength of public finances that likely diminishes some of the benefits of having a strong balance sheet position.
- Balance sheets improve fiscal risk assessments. For instance, balance sheets reveal the extent of borrowing by public corporations, including government-controlled off-budget financing vehicles, for which the government may ultimately be liable.

² Ghana's Public Financial Management regulations (2019) define an asset as "a resource with economic value which a covered entity owns or controls with the expectation that the resource will provide a future benefit."

³ Ghana applies aspects of GFSM 1986 and GFSM 2001.

- A final argument in favor of the public-sector balance sheet approach is that it can improve policy assessment of investment projects. The balance sheet approach shows that borrowing for consumption spending unequivocally lowers public sector wealth, while debt-financed infrastructure investment tends to have less of a negative effect as investment adds to the stock of fixed assets offsetting the increase in debt liabilities and can increase intertemporal net worth.⁴ For example, a debt-financed investment project increases the capital stock (asset) even though investment efficiency in Ghana (and in most countries) is less than 100 percent⁵ i.e., each Cedi borrowed (liability) adds less than a Cedi worth of value to the capital stock.⁶ Moreover, in the long run, the investment will increase public sector net worth if the return on public investment in terms of higher government revenue from higher economic growth exceeds the sum of (i) the financing costs associated with borrowing and (ii) the annual maintenance costs.

8. Balance sheet analysis comes with limitations (IMF, 2018). First, data quality can be an issue. The veracity of central and general government information will depend to some extent on the quality of the public financial management regulations and systems and adherence to them. For public corporations, the reliability of their financial information rests heavily on the implementation of sound accounting principles verified through external audits. Second, valuation can be a challenge particularly for nonfinancial assets that are not traded. Third, the public sector consists of many different entities, each facing its own constraints and risks, often requiring analysis of specific entities.

9. Recognition of assets on the government balance sheet do not eliminate the vulnerabilities associated with high public debt (IMF 2018). Assets such as roads and ports are illiquid and not available to meet rollover or deficit financing needs. Also, asset valuations such as those applied to natural resources can be highly correlated with the economic cycle – meaning their value can be at their lowest when financing needs are most pressing.

C. Methodology and Coverage for Ghana’s Public Sector Balance Sheet

10. The core of Ghana’s static public sector balance sheet are the central government assets and liabilities. The public sector balance sheet presented for Ghana is static in the sense that it reflects assets, liabilities, and net worth at a point in time. The starting point of staff’s analysis is the annual Controller and Accountant General financial statements of the consolidated account

⁴ Public sector balances sheet can reflect intertemporal net worth by adding the net present value of future primary revenues and expenses to the static public sector balance sheet. Ghana’s intertemporal balance sheet is briefly discussed later in the paper.

⁵ PEFA gives an overall D rating to public investment management in Ghana. See Government of Ghana, Public Expenditure and Financial Accountability (PEFA) assessment report, 2018 (GoG 2018b).

⁶ The average efficiency score for low-income developing countries is 60 percent. The efficiency score provides a measure of how much output could be increased through reforms while holding constant the level of input. It reflects the distance from the efficiency frontier, which is determined by the best performer in a cross-country comparison. It combines data on the volume of economic infrastructure (length of road network, electricity production, and access to water) and social infrastructure (number of secondary teachers and hospital beds).” See *Making Public Investment More Efficient*. International Monetary Fund, 2015.

(central government budgetary unit) for 2017 (GoG 2018a). Balance sheet line items in the report were adjusted as appropriate to reflect information available elsewhere such as the Annual Debt Reports (GoG 2019b), debt of ESLA Plc, equity values reported in select public corporation financial statements, and the assets and liabilities of the public pension fund (SSNIT 2017). The adjusted consolidated accounts are here after referred to as the central government, even though extrabudgetary account information, which is typically part of the central government, is missing. Following GFSM 2014, pension obligations to private sector employees under pay-as-you-go social security schemes such as Ghana's are not included in the central government balance sheet. Estimates of the government's share of oil and gas and gold resources were also valued based on the methodology developed in the October 2018 Fiscal Monitor and added to the central government's balance sheet.

Table 1. Ghana: Public Sector Balance Sheet—Institutional Coverage

Central government	Non-financial public corporations	Financial public corporations
<ul style="list-style-type: none"> • Consolidated account • Public pension fund (SSNIT) • ESLA debt 	<ul style="list-style-type: none"> • Bulk Oil Storage Company (BOST) • Electricity Company of Ghana (ECG) • Ghana Cocoa Board • Ghana Grid Company (Gridco) • Ghana National Gas Corporation (GNGC) • Ghana National Petroleum Corporation (GNPC) • Ghana Water Company (GWCL) • Tema Oil Refinery (TOR) • Volta River Authority (VRA) 	<ul style="list-style-type: none"> • Bank of Ghana • Ghana Commercial Bank (GCB) • National Investment Bank (NIB) • Agriculture Development Bank (ADB)

11. The institutional coverage was expanded to cover select public corporations. The assets and liabilities of nine of the largest non-financial public corporations were incorporated into Ghana's public sector balance sheet.⁷ These public corporations comprise 74 percent of the total unconsolidated assets and 87 percent of the total liabilities reported for non-financial public corporations in the 2017 State Ownership Report. Financial public corporations encompass the Bank of Ghana and the large commercial deposit taking institutions in which the government exercised control. These were Ghana Commercial Bank (GCB), National Investment Bank (NIB) and Agriculture Development Bank (ADB) in 2017 (Table 1).⁸ Figure 2 below shows the institutions, highlighted in

⁷ Ghana has 45 wholly owned public corporations. Of these, 36 are classified as commercial entities and the remaining as subvented agencies.

⁸ Assuming that the 2017 IPO of ADB, which was reversed in 2018, did not take place. Also, the Financial Investment Trust, which held shares in ADB on behalf of the Bank of Ghana, is controlled by the authorities.

red, included in the static PSBS as well as the public sector institutions not included, in blue, due to lack of data. Balance sheet information on the public corporations was drawn from financial reports and statements of each entity, converted into the GFS framework.

12. Cross holdings of assets and liabilities were netted to derive a consolidated balance sheet. The netting process aimed at capturing the largest identifiable consolidations: central bank holdings of government debt securities, government cash balances held at the central bank, public corporation claims on other public corporations and the central government, and equity holdings of the central government in public corporations. For example, estimated arrears (unaudited) among non-financial public corporations in the energy sector were GHc 6.2 billion. This amount was subtracted from both assets and liabilities of non-financial public corporations. Similarly, arrears claims of those entities on the central government units at end 2017 were GHc 5.8 billion, which was subtracted from the liabilities of the central government and the assets of the non-financial public sector.

D. Ghana's 2017 Consolidated Public Sector Balance Sheet

13. Public sector assets were about 66 percent of GDP in 2017, lower than those of a select sample of peers (Table 2). Non-financial assets, primarily fixed assets such as roads, the electricity grid, and natural resources amounted to 38 percent of GDP. Central government fixed assets (See Annex 1 for a detailed presentation of Ghana's PSBS), which are generally valued on a cost basis, were very low, likely reflecting an undervaluation of infrastructure (GoG 2018c). Financial assets, the value of which is more easily quantified relative to non-financial assets, were 29 percent of GDP. About half of these were on the balance sheet of financial public corporations, i.e., central government-controlled banks, after netting out bank holdings of government securities. Following

GFSM conventions, the table presents the unconsolidated net worth of public corporations as zero. This is because the public corporations' equity value is included in the total liabilities of public corporations is already reflected in central government assets. Decreases in equity of public corporations lead to a decrease in central government financial asset holdings which lead to a decrease in public sector net worth. Kenya, Tanzania, and Uganda public sector assets are 70 percent of GDP or more (Figure 3, panel A).⁹

Table 2. Ghana: Public Sector Balance Sheet, 2017
(Percent of GDP)

	Central Government	Public corporations		Consolidated Public Sector
		Non-financial	Financial	
Total assets	37.6	22.0	29.5	66.6
Non-financial	21.8	15.3	0.6	37.7
<i>of which</i> : Natural resources	17.6	0.0	0.0	17.6
Financial	15.9	6.7	28.9	29.0
Total liabilities	59.3	22.0	29.1	87.9
<i>of which</i> : Debt securities and loans	56.7	7.6	9.1	66.2
Net financial worth	(43.4)	(15.3)	(0.1)	(58.9)
Net worth	(21.7)	0.0	0.4	(21.2)

Source: Ghanaian authorities and IMF staff calculations.

14. Ghana's natural resource assets comprise a fourth of public sector assets. Petroleum, gas, and gold resources account for the lion's share of natural resource assets. The value of oil and gas assets represents the net present value of the government's take from royalties, fees, dividends, oil entitlement, and other charges is 30 percent of the annual crude oil production discounted at 16 percent annually.¹⁰ For gold, the estimated government take is 20 percent of the value of production. See Appendix for a detailed description of the methodology for estimating the value of natural resources (see also Alves and others, forthcoming.)

15. Resource wealth can be volatile, reflecting swings in commodity prices. For example, the estimated value to the government of Ghana's oil and gas assets doubled to over 20 percent of

⁹ The use of a different methodology to calculate the value of non-petroleum natural resources for Ghana accounts for some of the lower asset and net worth values. For Ghana, the value of gold reserves reflected on the balance sheet assumes the government only receives a portion (20 percent) of the estimated reserve value, based on estimates of actual collection rates, whereas the value for non-petroleum natural resources for the comparator countries' balance sheets (Kenya, Tanzania, Uganda) reflects the full estimated reserve value. If the full estimated gold reserve value in Ghana were recorded its public sector balance sheet, Ghana's assets and net worth would be positive. See Annex II for a description of the methodology used for Ghana.

¹⁰ The valuations are highly sensitive to estimates of the discount rate and government's take of the production value. Following the methodology applied in the October 2018 Fiscal Monitor, the discount rate reflects the projected average yield on 10-year Ghanaian bonds (2019-24) reported in WEO plus 3 percentage points.

GDP from 2012 to 2013. This was mainly driven by the sharp increase in international oil prices rather than new discoveries of oil and gas reserves (Figure 3, panel B). More generally, asset valuations are significantly more volatile than liability valuations. For example, a 20 percent increase in commodity prices would boost Ghana's natural resource assets to 22 percent of GDP from 18 percent in the baseline. Conversely, a 20 percent reduction in prices would lower natural resource assets to 14.5 percent of GDP. Government policy should not react to asset valuation changes on a yearly basis (IMF, 2018).

16. Non-financial public corporations hold 90 percent of the reported public sector fixed assets. This reflects their dominance of the capital-intensive energy and transportation sectors. The combined assets of public electricity distribution corporation (ECG) and the public power generation corporation (VRA) were 12 percent of GDP in 2017 (Table 3). The recorded value of central government's fixed assets was considerably smaller. Net of accumulated depreciation, the CAGD reported a value of GHc 7.5 billion in 2017 (3 percent of GDP). Roads and highways were the largest component of central government fixed assets comprising over 40 percent of the total.

17. Ghana's public sector liabilities are comparable to a sample of peers. Debt securities and loans dominate public sector liabilities. Ghana's central government debt burden has increased significantly over the past decade. From a post HIPC debt relief low of 41 percent of GDP in 2006 it grew to 57 percent of GDP in 2017. The latter includes two rounds of GDP rebasing that raised GDP. The liabilities of public corporations were also significant at 50 percent of GDP on a gross basis. Deposits at financial public corporations were about a third of the total. Netting out intra-public sector cross liabilities such as BoG holdings of central government debt and the central government's equity stakes in public corporations' yields consolidated public sector liabilities of 88 percent of GDP. This is similar to the public sector liabilities in Kenya, Tanzania, and Uganda.

**Table 3. Ghana: Public Corporations: Balance Sheets,
December 31, 2017
(Percent of GDP)**

		Ownership interest 1/	Assets	Liabilities	Equity
Financial					
Ghana Commercial Bank	GCB	51	3.8	3.3	0.5
National Investment Bank	NIB	95	1.4	1.4	0.0
Agriculture Development Bank 2/	ADB	93	1.4	1.2	0.2
Nonfinancial					
Bulk Oil Storage and Transport Company	BOST	100	0.9	0.7	0.3
Electricity Company of Ghana	ECG	100	6.5	4.3	2.2
Ghana Cocoa Board	Cocobod	100	2.8	2.7	0.1
Ghana Grid Company	GRIDCo	100	2.1	1.1	1.0
Ghana National Gas Corporation	GNGC	100	2.8	2.9	-0.1
Ghana National Petroleum Corporation	GNPC	100	2.1	1.0	1.1
Ghana Water Company	GWCL	100	1.6	0.6	0.9
Tema Oil Refinery	TOR	100	0.5	1.2	-0.7
Volta River Authority	VRA	100	5.4	3.3	2.1

Sources: Company financial reports
 1/ Percent of shares held by central government. For financial public corporations, also includes ownership holdings of Bank of Ghana directly or indirectly through the Financial Investment Trust.
 2/ ADB's initial public offering in 2017 was reversed in 2018 restoring Bank of Ghana's previous ownership interest in ADB through the Financial Investment Trust.

18. The public sector's total net and financial worth is negative. Ghana's public sector net worth –assets less liabilities – was negative 21 percent of GDP, as in other countries such as Uganda. However, public sector net worth differs from the concept of commercial net worth in that it ignores a key asset, the ability to tax in the future. Net financial worth – financial assets less liabilities – was negative 59 percent of GDP. On the liabilities side, the government is exposed to explicit contingent

liabilities in the form of guarantees, some of which have been called. The central government has guaranteed about USD 1.2 billion in debt held by public corporations. These contingent liabilities should be shown as a memorandum item to the balance sheet. There are also implicit liabilities, particularly those related to energy sector take-or-pay contracts.

19. The concept of net worth can be broadened to include an intertemporal component that incorporates future flows of revenues and expenditures. Intertemporal net worth includes the estimates of the static balance sheet, combined with the discounted future primary revenue and primary expenditure flows. Typically, the discount rate is set at the implicit interest rate on government debt. The extent to which intertemporal net worth differs from zero provides a sense of how far current policies deviate from the government's intertemporal budget constraint, with negative numbers indicating adjustment needs (IMF, 2018). While calculation of the net present value of future primary balances is beyond the scope of this paper, adhering to the Fiscal Responsibility Law, which requires annual primary balance surpluses, implies that the intertemporal net worth may be less negative than the static values reported above.

E. Caveats

20. The public sector balance presented in this paper is by nature incomplete. Balance sheet data on internally generated funds (e.g., hospitals and universities), statutory funds, and local governments was not available to develop a general government balance sheet. Also missing are the central government's holdings in joint ventures, and balance sheet information of smaller public corporations. Moreover, due to data availability constraints, the analysis is static. It does not present annual flows associated with balance sheet items.

21. However, the central government balance sheet is an acceptable proxy for the general government balance sheet. Statutory funds, except for the GET Fund and Ghana Infrastructure Investment Fund, are not allowed to borrow and their cash holdings are recorded on the central government's balance sheet. In addition, local governments (Metropolitan, Municipal, and District Assemblies (MMDAs)) undertake a small share of public sector activity with aggregate resources and outlays in 2017 less than 1 percent of GDP. Central government transfers comprise more than half of MMDA funding. Under the PFM Act (921), local governments may only borrow domestically and up to a limit determined by the finance minister. Actual borrowing is reportedly very small.

F. Public Sector Balance Sheets and Fiscal Policy Analysis

22. Fiscal policy choices impact public sector net worth. At a general level, borrowing to finance primary deficits reduces public sector net worth to the extent that the deficit exceeds the net acquisition of nonfinancial assets (public investment). The authorities have announced or pursued a number of specific policies in 2018 and 2019 that impact the composition of the public sector's assets and liabilities and the level of net worth. For example, the March 2018 reduction in electricity tariffs to below cost levels added to losses incurred by state-owned power companies which reduced their individual net worth. This led to a reduction in the government's financial assets (e.g., specifically, equity and investment fund shares) and lowered the public sector's net worth. The subsequent increase in electricity tariffs in 2019 will slow the losses. Table 1 summarizes the immediate effect of this and other actual or contemplated policies on net worth. The remainder of the section elaborates on the policy impact of key policy actions.

Table 4. Ghana: Immediate Balance Sheet Impact of Policy Choices

Policy measure	CG/GG		Public corporations				Public sector
	Assets	Liabs.	Financial	Non-Financial	Assets	Liabs/Equity	
			Assets	Liabs/Equity			Net worth
MMDA's borrow for consumption		↑					↓
Borrow to create bridge bank (CBG)	↑	↑	↑	↑			↔
Electricity tariffs set below cost	↓					↑/↓	↓
Increase collection rate on natural resource	↑						↑
ECG incurs excess capacity charges	↓					↑/↓	↓
MoF pays ECG's excess capacity charges	↑	↑				↓/↑	↔

- **MMDAs borrow for consumption.** A draft Local Public Finance bill would allow MMDA's to borrow based on their balance sheet strength. Currently, the central government has direct control over the ability of MMDAs to borrow. If the bill becomes law and MMDA's borrow to finance local consumption this would reduce public sector net worth, increasing fiscal risk.
- **Bridge bank.** The central government borrowed 3.3 percent of GDP in 2018 to clean up several large banks, creating a government-owned bridge bank (CBG) in the process that took over assets of resolved banks whose depositors have been bailed out by government. The creation of CBG (a financial public corporation) will increase the assets and liabilities of the public sector. The long-run impact on public sector net worth will depend on the return received on the

government's equity injection in terms of dividend and tax payments and the possible sale of the equity stake relative to the cost of the debt financing. Staff estimate the government will inject another 1.3 percent of GDP into the system in 2019-20 to address financial weaknesses in specialized deposit institutions (SDIs). Some of the funds will be used to pay of depositors and close insolvent SDIs. The immediate and long run effect of this will be a decrease in public sector net worth.

- **Higher collections on oil and gas resources.** The average effective tax rate (AETR) for petroleum agreements i.e., the percentage of available cashflows going to government, is roughly 55-65 percent. This translates into a percentage of the value of production of 25-35 percent, the basis for calculating natural resource wealth to the government. However, historical revenue and production figures suggest the government's share is 20-30 percent of annual crude oil production value, as noted above. This may due in part to tax avoidance or administrative inefficiencies. By increasing the government take from natural resource production, the government could increase the NPV of its claim on the production value and its net worth.
- **Excess electricity take-or-pay charges.** ECG (and the central government) are counterparties to several take-or-pay contracts with independent power producers. The contracts require payment for contracted volumes of electricity even if the electricity is not consumed (take-or-pay charges). When ECG expenses the charge, its equity is reduced, and its liabilities (accounts payable) increase. The reduction in equity lowers the value of the government's investment in ECG. The actual payment of the claim by ECG or the government does not alter the public sector's net worth.

23. Scrutiny of specific public entities financial vulnerabilities is a necessary complement to PSBS analysis. Without a separate examination of the financial condition of central or local governments or public corporation balance sheets important risks may be missed because they do not appear on the PSBS. For example, central government arrears or cross arrears among non-financial public corporations do not appear on the consolidated public sector balance sheet as they are removed (netted out) from both the central government and public corporation balance sheets during consolidation. However, independent examination of the individual entities balance sheets would draw attention to the arrears.

G. Recommendations and Conclusion

24. Ghana's PSBS can improve fiscal policy and governance and, by extension, economic growth. The estimated PSBS for Ghana developed in this paper draws attention to the assets and obligations of the central government and Ghana's many public corporations. The greater awareness can lead to a more wholistic approach to policy making, including better management of assets. The transparency offered by Ghana's PSBS can serve to reduce uncertainty over the public sector's financial position, possibly reducing the spread premium on government borrowing, despite net worth being negative. These benefits can translate into economic growth through greater fiscal space for inclusive, growth-friendly spending and investment.

25. Implementation of existing reforms would strengthen Ghana's PSBS. Efforts to improve domestic revenue mobilization, from reducing exemptions to greater reliance on risk-based compliance system, including for extractive industries, would boost public asset values. Further progress on improving public investment management such as requiring all existing and potential projects to be registered in the investment database could increase the marginal contribution to the capital stock for each Cedi spent on public investment.

26. The PSBS approach underlines the need for reform and return to profitability of non-financial public corporations, particularly in the energy sector. Full implementation of the cabinet-approved Energy Sector Recovery Program, which prescribes measures to move the energy sector toward financial stability including the renegotiation or termination of expensive take-or-pay contracts, would improve both non-financial public corporations' and central government finances. The authorities have also undertaken some initial steps to improve transparency and governance of non-financial public corporations, but more can be done. Better and regular financial reporting by non-financial public corporations, as required under the PFM regulations, is paramount. Setting up the State Investment Governance Authority to oversee public corporations in accordance with the recently enacted SIGA Act could lead to more efficient and financially sound public corporations.

27. The PSBS developed in this paper shows the potential for improving fiscal policy analysis and implementation in Ghana. The creation of an official PSBS will require several elements and the development of technical capacity. The first step is to implement the provisions of the PFM regulations that call for the CAGD to produce financial statements for Ghana's public funds for the 2020 financial year. This will require the completion of the rollout of the Ghana Integrated Financial Management System (GIFMIS) to all public funds (Consolidated Fund, IGFs, Statutory Funds, Donor Funds, and any other fund.). In addition, all relevant entities must prepare and submit in a timely manner their respective financial statements to the CAGD based on a standard format provided. Moreover, continued emphasis improving SOE financial disclosure, as required in the PFM Act, remains extremely important for eventual development of a full-fledged PSBS and fiscal risk mitigation more generally.

Appendix I. Ghana's Public Sector Balance Sheet, 2017

	Central Government	General Government	Non-Financial Public Corps	Financial Public Corps	Consolidated Public Sector	Consolidation
BALANCE SHEET						
Total assets	37.6	0.0	22.0	28.5	65.5	-22.6
Nonfinancial assets	21.0	0.0	15.3	0.6	36.9	0.0
Fixed assets	2.9	0.0	14.5	0.5	17.9	0.0
Land	0.0	0.0	0.0	0.0	0.0	0.0
Mineral and energy resources	17.6	0.0	0.0	0.0	17.6	0.0
Other nonfinancial assets	0.5	0.0	0.8	0.1	1.5	0.0
Financial assets	16.6	0.0	6.7	27.9	28.6	-22.6
<i>by instrument</i>						
Monetary gold and SDRs	0.0	0.0	0.0	2.4	2.4	0.0
Currency and deposits	2.5	0.0	1.0	4.6	5.3	-2.8
Debt securities	0.5	0.0	0.0	15.3	8.9	-6.9
Loans	3.1	0.0	0.1	4.4	7.3	-0.3
Equity and investment fund shares	10.4	0.0	0.0	0.1	2.5	-8.0
Other financial assets	0.2	0.0	5.6	1.0	2.2	-4.5
Liabilities	59.3	0.0	22.0	28.4	87.1	-22.6
<i>by instrument</i>						
SDRs	0.0	0.0	0.0	0.8	0.8	0.0
Currency and deposits	1.9	0.0	0.0	16.2	15.3	-2.8
Debt securities	30.1	0.0	0.9	3.7	27.8	-6.9
Loans	26.5	0.0	6.7	3.2	36.1	-0.3
Equity and investment fund shares	0.0	0.0	6.9	1.6	0.5	-8.0
Insurance, pension, and standardized guarantee schemes	0.0	0.0	0.1	0.0	0.1	0.0
Financial derivatives and employee stock options	0.0	0.0	0.0	0.0	0.0	0.0
Other accounts payable	0.7	0.0	7.4	2.9	6.5	-4.5
NET FINANCIAL WORTH	-42.7	0.0	-15.3	-0.5	-58.6	0.0
NET WORTH	-21.7	0.0	0.0	0.1	-21.6	0.0

Appendix II. Mineral and Energy Resources: Methodology of Calculation

1. The GFSM 2014 valuation guidelines were applied to estimate values of Ghana's energy and gold resources. The estimates correspond to the expected pre-tax cash flows resulting from their commercial exploitation. Sources and methods for these estimates differ by type of commodity, and the choice of estimation method was largely determined by the availability of source data.
2. The value of stocks of oil and gas were estimated using the following data sources: (1.1) production over the lifetime of the asset, from the Rystad database (Rystad Energy 2019); (1.2) prices (in US\$) from WEO forecasts available at the end of the reference year; (1.3) costs of production (in US\$), from the Rystad database; and (1.4) exchange rates, from WEO forecasts available at the end of the reference year.
3. Sources 1.1, 1.2, and 1.3 were used to calculate future US\$ cash flows over an 85-year horizon. These US\$ cash flows were converted to domestic currency using WEO exchange rate forecasts (source 1.4). The net present value of the domestic currency cash flows was calculated using a discount rate equivalent to the projected average (2019–24) long-term (10-year) government bond yields in WEO plus a risk factor of three percent.
4. The value of the stock of gold was estimated using the following data sources: (2.1) estimates (in constant 2014 US\$ prices), from the World Bank's "The Changing Wealth of Nations 2018" report (Lange and others 2018); (2.2) United States Geological Survey data on 2017 reserves and 2014–17 production; (2.3) prices (in US\$) from WEO commodity prices for 2000–17; (2.4) exchange rates, from the current vintage of WEO exchange rates.
5. Estimates for 2015–2017 are based on the changes in reserves in those years (source 2.2). The obtained estimates based on the constant 2014 US\$ prices were converted to current US\$ prices using the price index obtained through WEO commodity prices (source 2.3), and subsequently converted to domestic currency using WEO exchange rates (source 2.4).

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FINANCIAL STABILITY ON THE ROAD TO RECOVERY¹

The Ghanaian financial system has grown substantially during the past years, with total assets reaching 54 percent of GDP 2019. However, internal controls and risk management practices of financial institutions have not always kept up with the industry's growth, as evidenced by a steady increase in nonperforming loans during the past years and, more recently, several high-profile banking failures. While reforms have been stepped up in response, it has also become clear that fragilities extend well beyond the banking sector, with specialized deposit-taking institutions and fund managers also facing distress. This Selected Issues Paper (SIP) takes stock of key developments in the Ghanaian financial sector, with the aim to identify priorities to further buttress resilience and support the alignment of the oversight framework with international best practices.

A. Introduction

1. Ghana's financial system is dominated by the banking sector. As of June 2019, universal banks account for 70 percent of total financial system assets (38 percent of GDP), followed by securities and exchange sector (14 percent) and the pension sector (13 percent). But while the banking system continues to be the system's main pillar, growth has moderated in recent years as non-banking institutions are becoming increasingly important.

2. The banking sector has undergone major transformation during the past few years. While the relative size of the banking system has declined modestly during recent years, reaching 38 percent of GDP in 2019, banking assets have more than doubled since 2014. The system is comprised of 24 banks, 14 of which (representing almost 60 percent of banking system assets) are at least in part foreign-owned.² Concentration has increased in recent years due to mergers and (mandatory) exits, with the Bank of Ghana (BoG) having closed nine banks since August 2017. Largely because of resolution proceedings, public sector involvement has also increased, with the government (excluding equity investments held by the Social Security and National Insurance Trust or SSNIT) owning three banks (Agricultural Development Bank, National Investment Bank and Consolidated Bank Ghana, established as a state-owned bridge bank in August 2018) and holding a minority equity stake in a fourth (GCB Bank).¹ Banks' balance sheets largely consist of loans and

¹ Prepared by Constant Verkoren (MCM)

² Foreign ownership is largely related to banking groups from Nigeria, the United Kingdom and South Africa. Note that two banks—the domestically-owned GHL Bank and First National Bank, a subsidiary of the South African FirstRand Group, are currently in the process of merging.

³ Ongoing recapitalizations of several locally-owned banks via Ghana Amalgamated Trust, a special purpose vehicle established by the Ministry of Finance in January 2018 to provide equity support to indigenous institutions, are expected to further increase government ownership in the banking sector.

advances, securities holdings and deposits, with some public-sector crowding out in recent years as banks' asset composition has shifted from private-sector lending to government securities.

3. Substantial banking sector weaknesses have necessitated multiple interventions in recent years.⁴ Capital deficiencies and other regulatory breaches identified by the BoG prompted license revocations for nine institutions, including uniBank, one of Ghana's top five banks. The BoG's interventions have helped maintain depositor confidence, albeit at substantial cost for taxpayers as the various operations have fully protected depositors and other creditors to avoid an erosion of confidence (box 1). The ongoing cleanup of specialized deposit-taking institutions and restructuring of a weak state-owned bank, discussed later in this document, is expected to generate further costs.

4. Enhancements of the institutional framework are helping to buttress financial sector oversight. The establishment of the Financial Stability Council (FSC)⁵ has provided the authorities with an important platform for inter-agency coordination, with the aim to reinforce the identification of financial sector vulnerabilities, and cross-sectoral risks in particular, and support crisis preparedness. In addition, the entry into force of the new Deposit Protection Scheme (DPS), administered by the Ghana Deposit Protection Corporation, as of end September 2019 is an important step towards strengthening the financial safety net—although some scope for further improvement of the DPS remains.

⁴ Also see [IMF Country Report No. 19/97](#), Box 3.

⁵ <https://www.mofep.gov.gh/news-and-events/2018-01-03/fiscal-and-financial-stability-councils-now-established>.

Box 1. Banking Sector Restructuring

Strengthening the resilience of the financial sector has been one of the key pillars of Ghana's recently-completed Extended Credit Facility. During 2016, the BoG (in consultation with Fund staff) developed a roadmap for buttressing banking sector resilience amidst increasing credit risks and lagging provisioning levels (partly reflecting regulatory forbearance in previous years). Cornerstone was an Asset Quality Review (AQR) to gauge vulnerabilities and identify capital needs (if any) for all banks active in Ghana. Upon its completion in March 2017, the AQR had identified nine banks as undercapitalized, with an aggregate capital shortfall of about 1.6 percent of GDP ([IMF Country Report No. 17/262](#)).

While most banks were able to address their capital shortfalls, the BoG was forced to intervene two in August 2017, in view of deep insolvency and a lack of credible recapitalization plans. The interventions were effected via transfers of selected assets and liabilities to one of the largest (and partly state-owned) banks, with the government providing the assuming bank with government securities to cover the asset shortfall (the relevant securities were issued in early 2018, after the exact split of assets and liabilities had been finalized). PricewaterhouseCoopers was appointed to liquidate the remnants of the failed banks.

Implementation of the banking sector roadmap met additional challenges in subsequent years. Onsite inspections conducted by the BoG in late 2017 and early 2018 highlighted further underprovisioning in some institutions, and in turn triggered the appointment of an official administrator at UniBank (one of Ghana's largest banks). By early July, it had become clear that prudential reports for UniBank were largely inaccurate and that the bank was, in fact, insolvent. Given the absence of credible rehabilitation prospects, the BoG decided to resolve the bank in August 2018, together with four other smaller troubled banks.^{1/} A state-owned bridge bank, Consolidated Bank Ghana, was created to receive good assets and liabilities of the resolved banks, with the government (again) covering the gap between assets and liabilities by providing the bridge bank with special resolution bonds. In January 2019, two more banks were closed via similar operations, supported by another tranche of resolution bonds. The Government plans to privatize the bridge in the medium term. Weaknesses in other sectors, excluded in the figure below and discussed in more detail later, have further increased costs.

Ghana: Banking sector costs, 2018-2019

	(GHc billion)		(percent of GDP)	
	2018	2019	2018	2019
Financial sector costs	10.3	1.5	3.4	0.4
Resolution of UT Bank and Capital Bank	2.2		0.7	
Resolution of uniBank, The Royal Bank and three others	7.6		2.5	
Equity injection bridge bank	0.5		0.1	
Resolution Premium Bank and Heritage Bank		1.5		0.4

^{1/} See <https://www.bog.gov.gh/notice/press-release-government-establishes-new-indigenous-bank/> for further details.

5. Financial inclusion remains limited in some areas and across certain demographics.⁶ As per the World Bank's Findex survey, the share of Ghanaians with access to formal financial services rose from 29 to 58 percent during 2011-2017, in part buoyed by mobile money accounts. However, access is lagging among the poor, and the five poorest regions (Upper West, Northern, Volta, Upper East, and Brong-Ahafo) remain the least financially included. Rural access to financial accounts has roughly doubled, reaching 53 percent in 2017, partly reflecting the footprint of the small rural and community banks (RCB). Financial access for men is generally greater than for woman (62 percent vis-à-vis 54 percent). The strong contribution of mobile money is supported by increased product offerings (e.g., micro-credit loans) and interoperability across providers and between providers and banks, which has increased convenience and efficiency for end-users.

Ghana. Mobile money trends
(in millions and GHc million)

Sources: BoG

B. Banking Sector Conditions

6. Aggregate banking sector capitalization has increased substantially in recent years.

The sharp increase in minimum statutory capital, announced by the Bank of Ghana in September 2017⁷ has helped boost the systemwide capital adequacy ratio (CAR) to almost 22 percent in December 2018 (up from 18 percent in 2014). While the increase partly reflects banks' efforts to raise fresh equity and/or capitalize income surplus, changes in banks' asset mix also contributed to the improvement as increased investments in government securities attracted lower risk weights.⁸ Moreover, a small number of banks, including a large state-owned bank, continue to face shortfalls as the operationalization of Ghana Amalgamated Trust (GAT), the government's special purpose vehicle that is seeking to mobilize private sector funds to support indigenous banks, has encountered delays.⁹

Ghana. Bank capitalization
(in percent)

Sources: BoG

7. Credit growth is showing signs of recovery, but asset quality remains a concern. Year-on-year growth in private sector credit reached 17 percent in June 2019, amidst evidence of easing

⁶ Also see World Bank, Enhancing Financial Inclusion, June 2019

(<http://documents.worldbank.org/curated/en/395721560318628665/pdf/Fourth-Ghana-Economic-Update-Enhancing-Financial-Inclusion-Africa-Region.pdf>).

⁷ https://www.bog.gov.gh/privatecontent/Banking_Supervision/Notice%20on%20New%20Minimum%20Paid%20Up%20Capital.pdf.

⁸ Since December 2014, the ratio between risk weighted assets and total assets declined steadily from 70 percent to 57 percent.

⁹ GAT was established by the Ghanaian government in December 2018 as a vehicle that for mobilizing private sector funds to provide capital support to qualifying banks that successfully complete a due diligence process. Also see <https://www.mofep.gov.gh/press-release>.

credit conditions. However, while credit is increasing, the aggregate nonperforming loans (NPL) ratio is plateauing around 18 percent, following a sharp decline during the first half of 2018. The large share of loans classified as ‘loss’ in systemwide NPLs points to banks’ inability to effectively recover distressed loans—partly due to weaknesses in the legislative and institutional framework for insolvency and creditor rights—and suggests that further write-offs may be needed to help clean banks’ balance sheets (also see Box 4 for a discussion of the authorities’ strategy for reducing the NPL overhang). NPLs are particularly high for agriculture and electricity, gas and water (34 and 31 percent, respectively), with two state-owned banks posting some of the highest NPL ratios of the banking system (39 and 47 percent, respectively).

8. Firm-specific variations underscore the importance of closely monitoring liquidity risks, notwithstanding excess liquidity overall. The current regulatory framework does not include minimum liquidity requirements¹⁰, although banks submit various prudential returns (maturity gap report and top 20 depositors) and the BoG monitors several liquidity metrics. The gradual reallocation of cash holdings to government securities, as part of banks’ efforts to increase earnings, has enabled a steady improvement of the ratio between liquid assets (broad definition) and short-term liabilities to around 76 percent (as of June 2019, the banking sector held about 25 percent of all outstanding government securities). Aggregate metrics, however, may veil institution-specific fragilities, as illustrated by utilization by some banks of (largely uncollateralized) liquidity support from the BoG to cover liquidity shortfalls (e.g. prompted by deposit outflows and repayment of external debt obligations). While the BoG has been able to realize some recoveries on these exposures, more than 1 percent of GDP remains outstanding as claims on the receiverships that were created as part of the bank closures during 2017-2019, on top of an aggregate exposure on ‘going concern’ institutions of about 0.15 percent of GDP.

¹⁰ The only minimum liquidity threshold that banks need to meet is the BoG’s cash reserve requirement, which (as of April 2019) stood at 8.34 percent.

Ghana: Bank Liquidity

Liquid assets have increased substantially

Ghana. Bank liquidity
(in percent)

Sources: BoG

...as banks' government securities holdings are increasing.

Ghana. Government securities holdings
(Ghc billion)

Sources: MoF

9. High operational costs point to banking sector inefficiencies, even though profitability has improved. As of June 2019, after-tax profit amounted to GHc 1.67 bn, representing a year-on-year increase of 36 percent. Profitability was supported by relatively high interest income from banks' large holdings of government securities, with investment income accounting for almost 45 percent of total (up from 29.5 percent in December 2015). At the same time, the share of both interest income and fees and commissions has declined to about 35 and 12 percent, respectively. Improved performance of the banking sector reflected positively on the main profitability indicators, even though they remain below pre-crisis levels. The sector's cost-to-income ratio has hovered around 80 percent for the past few years, as operational costs remain relatively high—including in comparison with other sub-Saharan countries. Staff analysis suggests high operating costs are a drag to financial intermediation, as bank lending rates have not fully responded to the sizeable reduction in funding costs (Box 2).

Ghana: Bank Profitability

Banks' rate of return is improving...

Ghana. Bank profitability
(in percent)

Sources: BoG

...but operational costs are pressuring bank efficiency.

Ghana. Bank efficiency
(in percent)

Sources: BoG

Box 2. Credit to Private Sector and Financial Intermediation Costs

Access to credit remains a bottleneck to diversification and sustained economic growth in Ghana. According to the World Bank's Doing business, Ghana ranked 80 over 190 in 2019 in terms of ease to get credit, unchanged from 2018. From a financial cycle viewpoint, credit to the private sector has been anemic, with nominal growth rates about 14 percent in 2019-19, but it is recovering progressively from an excessive expansion followed by an extensive cleanup of the financial sector.

Of concerns are the persistently high bank lending rates despite a sharp reduction of the cost of funds since 2017—the monetary policy rate has been reduced by more than 900bp. Lending rates tend to reflect costly financial intermediation in Ghana as measured by interest rate spread or margins. Using the standard accounting approach developed by Randall (1998), the interest rate margin can be decomposed into profit and cost components, with the costs including reserve requirements, operational costs, and provision for loan losses. This decomposition is applied to the Ghanaian banks that have remained active after the banking sector cleanup, using annual data over 2014-2018 from Bankscope.

Bank intermediation costs in Ghana share many features of banking systems in the region. High profit margins are driving high net interest margin, which is consistent with both significant market power and a high-risk premium (also see Annex II). The level of the cash reserve requirement does not play a significant role, in line with the sector's excess liquidity. Surprisingly, loan loss provisions do not seem to impact intermediation costs as much as expected given high NPL rates, most likely due to under-provisioning of NPLs and/or due to banks' claims to the Government being a relatively important portion of banks' interest-bearing assets. After 2017, more stringent application of loan classification requirements and earlier loss recognition led to an increase in NPLs 22.7 percent in December 2017 which may not be captured by the data. Similarly, Beck et al (2011) showed that loan loss provisions and reserve requirements tend to be minor components of bank intermediation costs in Africa, while high operating costs are rather important.

Bank intermediation costs are disproportional driven by operating costs, half of which are personnel expenses. High operating costs are associated with many branches and high personal expenses. There are exceptions, however: UBA, for example, whose business model relies on digital banking platforms across Africa, has very low overhead costs thanks to few branches and relatively small staff. Accordingly, operating costs account for a much smaller share of the bank's interest rate margin.

The analysis suggests that improving operational efficiency and addressing issues around collateral recovery (with the aim to reduce provisioning requirements) are crucial to lower lending rates and improve access to credit. In this respect, leveraging both data and digital solutions to support financial intermediation and better service provision offers promising avenues (Geiger, 2019). In addition, addressing issues around land tenure, acquisition, and administration will help mitigate risk premium born from lack of good collateral. It would also make Ghana's modern collateral registry work more effectively.

Prepared by: Albert Touna Mama (IMF Resident Representative in Ghana), with assistance from Mark Edem (University of Ghana-Legon).

References: Randall, R., 1998, "Interest Rate Spreads in the Eastern Caribbean," IMF Working Paper 98/59 (Washington, DC: IMF).

Beck, T.; Maimbo, S. M.; Faye, I.; Triki, T., 2011. Financing Africa: through the crisis and beyond. (Washington, DC: World Bank).

Geiger, M. T.; Kwakye, K. G.; Vicente, C. L.; Wiafe, B. M.; Boakye Adjei, N. Y., 2019. Fourth Ghana Economic Update: Enhancing Financial Inclusion - Africa Region. Ghana Economic Update; no. 4. (Washington, D.C: World Bank Group).

10. The various banking failures that materialized during 2017-2019 have raised concerns about financial sector governance. Weaknesses in loan origination and credit risk management have exposed banks to elevated credit risks, as also illustrated by elevated NPL ratios. Although interventions were prompted by financial fragilities (i.e., balance sheet erosion and/or immediate liquidity concerns), the materialization of such weaknesses can consistently be tied to poor corporate governance and, in many instances, allegations of more nefarious actions such as insider-dealing and fraud (e.g. related-party transactions and/or manipulation of financial records). The large number of distressed institutions that had to be intervened also raises concerns about the risk culture in the financial sector, with institutions engaging in excessive risk-taking and senior management and bank owners not acting in the interest of customers, staff and other stakeholders.

C. Non-Bank Deposit-Taking Institutions

11. Ghana has a large universe of non-bank deposit taking institutions that traditionally direct their activities towards the lesser-included segments of the population. These specialized deposit-taking institutions (SDI), which collectively accounted for almost 7 percent of financial sector assets, include microfinance and micro credit companies; rural and community banks (RCBs); savings and loans companies (S&L); and finance houses (FH). Most of them are regulated and supervised by the BoG, but supervisory functions for the RCB have been delegated to ARB Apex Bank, established in 2001 as a ‘mini’ central bank for the RCBs. In addition, financial services are provided by various semi-formal institutions that include susu collectors¹¹ (operating under the oversight of the Ghana Co-operative Susu Collectors Association) and credit unions (regulated and supervised by the Ghana Co-Operatives Credit Unions Association).

12. Weaknesses among many SDI necessitated a comprehensive restructuring of the subsector. In May 2019, the BoG announced the license revocation of 386 microfinance and microcredit companies, many of which had already ceased operations without settling deposit balances. As elucidated in its official notice¹², fragilities can be tied to poor corporate governance and risk management, unsustainable business models and, in some cases, fraud—exacerbated by supervisory challenges that partly reflected resource constraints and weaknesses in licensing procedures. In August 2019, the BoG intervened 23 S&L and FH that were unable to address long-standing shortcomings, including breaches of statutory capital requirements, excessive risk-taking, financing of related-party transactions with depositor funds, underprovisioning, persistent loss-making and weak board oversight and accountability—which prudential concerns in some cases going back multiple years.¹³ While the costs of reimbursing depositors (initially up to GHc 10,000 per

¹¹ Susu collectors are a traditional form of financial intermediaries that provide informal means for Ghanaians to save funds, in return for a commission.

¹² <https://www.bog.gov.gh/notice/notice-of-revocation-of-license-of-insolvent-microcredit-companies-and-appointment-of-receiver/> and <https://www.bog.gov.gh/notice/notice-of-revocation-of-license-of-insolvent-microcredit-companies/>.

¹³ <https://www.bog.gov.gh/notice/notice-of-revocation-of-licences-of-insolvent-savings-and-loans-companies-and-finance-houses-and-appointment-of-a-receiver/>.

account) remain to be determined as validation of deposit balances is still ongoing, initial estimates (excluding potential recoveries) point to at least 0.6 percent of GDP.

13. Although RCBs have generally fared better than other SDI, residual weaknesses still require supervisory attention. Generally speaking, RCBs have a relatively higher rate of compliance with statutory minimum capital requirements than other SDIs and deposit balances have continued to grow, although not as fast as in the banking sector. However, capital and/or liquidity shortfalls continue to persist across the subsector, and resource limitations at ARB Apex Bank may undermine supervisory effectiveness. As the recently announced revised deadline¹⁴ (from December 2017 to February 2020) for increasing minimum statutory capital to GHc 1 million may incentivize some RCBs to pursue mergers, a careful assessment of the prospective financial position, business model and envisaged risk profile of combined entities is essential to help ensure their future sustainability.

D. Non-Bank Financial Institutions

14. Ghana's capital market, although developing, is playing a relatively small role in long-term financing of the economy. As of end-March 2019, there were 33 companies listed (36 at end-2017) on the Ghana Stock Exchange (GSE), with another five on the Alternative Exchange. Market capitalization stood around 17 percent of GDP, down from 21 percent year-on-year. Market trends have been negative for some time, with low trading volumes and a steady decline of the GSE's composite index. The market is highly concentrated, with the three largest listed companies (active in the mining and telecom sectors) accounting for more than 70 percent of market capitalization. The bond market has grown in recent years but remains dominated by government securities.

15. The fund management industry is showing signs of distress Rapid growth of assets under management (including from retail investors that were attracted by promised returns) came to a halt in 2018 as the industry experienced withdrawals and investment losses. Fund managers, in particular, are facing challenges as many have been unable to honor redemption requests (as also evidenced by increasing complaints, see below), prompting the SEC to revoke the licenses of 53 fund management companies in November.¹⁵ While the inability to repay partly stems from their inability to unwind investments—with fund managers having taken increasingly greater risks to cover fixed returns promised to their clients—exposures to related parties, sectoral concentrations (i.e., placements with resolved banks and SDI) and governance-related weaknesses have exacerbated the situation. Limited resources and a high workload (among others related to routine activities such as license applications and off-site analysis) have precluded the Funds Management Department of the Securities and Exchange Commission (SEC) from meeting annual inspection targets.

¹⁴ <https://www.bog.gov.gh/wp-content/uploads/2019/08/NOTICE-ON-COMPLIANCE-WITH-THE-MINIMUM-PAID-UP-CAPITAL-FOR-RURAL-AND-COMMUNITY-BANKS-AND-MICROFINANCE-INSTITUTIONS-1.pdf>

¹⁵ <https://sec.gov.gh/public-notice/>.

Text Table 1. Ghana: Capital Market Developments

The equity market is highly concentrated.

Ghana. Market capitalization by sector
(in percent)

Sources: GSE

Adverse sentiment is affecting the GSE's Composite Index

Ghana. Stock exchange developments
(daily index value)

Sources: S&P

The universe of securities firms is increasingly diverse.

	Dec-14	Dec-18
Broker-Dealers	22	24
Custodians	18	16
Exchange Traded Funds	1	1
Investment Advisers	2	10
Fund Managers	109	140
Mutual Funds	24	35
Primary Dealers	15	15
Registrars	3	4
Securities Depositories	1	1
Securities Exchange	1	2
Trustees	4	6
Unit Trusts	18	19
Total	218	273

Fund managers are increasingly under pressure.

Ghana. Assets under management
(Ghc million)

Sources: SEC

16. The insurance sector comprises a relatively small but fast-growing part of Ghana's financial system. As of December 2018, the sector included 29 non-life insurers (predominantly engaged in motor insurance), 24 life insurance companies, 82 intermediaries and three reinsurers; with five new companies receiving a license from the National Insurance Commission during the year. Insurance penetration rate remains low at 1.15 percent with only 30 percent of the Ghanaian population enjoying insurance coverage, even though gross written premiums (almost GHc 3 bn as of December 2018) continue to grow at a brisk pace (21 percent in 2018, compared to 27 percent in 2017). Investments largely consist of government securities and deposits.

Ghana. Insurance sector investment mix
(Ghc million)

Sources: NIC

17. More robust underwriting practices are critically important to improve resilience and achieve sustainable growth of the sector. Declining profitability (GHc 204 million in 2018 vis-à-vis GHc 245 million in 2017) and continued reliance on investment income to cover persistent underwriting losses raise concerns about the sector's capacity to effectively deepen insurance penetration (Box 3).

Box 3. Developments in the Insurance Sector During 2018

Life Insurance

- Annual growth of capital and surplus of the has steadily decelerated since 2014 (e.g., from 19 percent in 2017 to 7 percent in 2018) with nine firms—including three that only commenced operations in 2018—recording a decline in 2018.
- While the sector remains profitable, return on assets has been sluggish since 2014, with nine companies (including SIC Insurance, the country's largest insurance company that is partly owned by the Ghanaian government) recording losses during 2018. The industry's investment yield averaged 15 percent in 2018 (down from 18 percent in 2014), with seven firms reporting an investment performance of 10 percent or less. A handful of firms (excluding new entrants recorded expense ratios (operational expenses as a percentage of net inflows from policy holders) between 80-150 percent.
- The policy holder benefit ratio (total investments to actuarial liabilities) declined by 26 percent during the past three years, reaching 190 percent in 2018—with two firms recording ratios below 100 percent. Policyholder inflows grew by 24 percent in 2018, slightly below the five-year average for the sector.

Non-Life Insurance

- Gross written premium increased by 10 percent during 2018, comparable to the rate observed for 2017 but well below the five-year average.
- Capital and surplus of the industry continues to increase—albeit slower than in previous years and with 20 percent of the industry reporting a decline.
- Gross insurance risk (gross written premiums to equity) for the industry has gradually reduced since 2014, although with substantial variation across individual firms (above 200 percent for six out of 33 firms, and above 300 percent for two).
- While the industry's return on assets is showing some signs of improvement, investment returns have dropped to 10 percent (with about one-third of all firms recording returns below the industry average); while (i) the expense ratio (total expenses to net earned premiums) of 99 percent (with 14 firms recording a ratio above 100 percent) and (ii) combined ratio of 142 percent (with all except five companies recording ratios above 100 percent) point to substantial inefficiencies.
- Trends in the industry's technical reserve cover (technical provisions divided by liquid investments) raise concerns, with a third of all firms recording ratios close to or above 100 percent—implying that they are not holding sufficient liquid investments to cover their technical provisions.

18. The uptick in complaints about non-bank institutions underscores the importance of improving market conduct. While insurance-related complaints lodged with the National Insurance Commission (NIC) steadily declined during 2014–2017, a substantial spike can be observed for 2018, with one life insurance company (placed under enforcement action during 2018) accounting for almost 40 percent.¹⁶ A similar pattern applies to the securities sector, with complaints rising from 255 (cumulative) in March 2018 to 1019 in March 2019. For the insurance sector, claims largely related to repudiation and delays in settlement and payment, unauthorized premium deductions and delayed refunds, delays in the processing of matured policies and perceived low surrender values; while securities-related claims were triggered by non-payment of redemption requests, failure to provide account statements, missing shares delays in executing transactions, and failure to honor assignments. Although more than 50 percent of the insurance-related complaints could be resolved through intervention of the NIC, it is noticeable that the claims ratios (net claims incurred divided by net earned premiums) of the companies with the most complaints are lagging the industry average—which may be indicative of overly restrictive claims handling and/or unfair treatment of customers. For securities firms, 75 percent of the claims remains outstanding.

19. The pensions sector has experienced modest growth in recent years, but pension coverage remains low. Since 2008, when the National Pensions Act (Act 766) was adopted, the Ghanaian pension system is comprised of three pillars, comprising a mandatory defined-benefit scheme (first tier) that provides basic financial support to contributors based on age and invalidity (administered by SSNIT); a compulsory, defined contribution scheme (second tier) managed by the private sector that provides an additional lump-sum payment at retirement; and a voluntary scheme

¹⁶ Even abstracting from this individual firm, complaints received still more than doubled between 2017 and 2018.

(third tier) based on defined contributions and supported by tax incentives for workers in the informal and formal sectors. As of end-2015, both the first and second tiers had about 1.2 million members, but lagging membership of the third tier (slightly below 149,000 individuals) underscores the challenge of extending pension coverage to the informal sector.¹⁷ SSNIT's position in the pension sector has gradually declined to below 40 percent but it remains Ghana's largest institutional investor with extensive equity investments in GSE-listed and unlisted companies, commercial real estate and housing projects.

E. Supervisory and Regulatory Framework

20. Ghana has made great strides in overhauling the regulatory and supervisory framework for the banking sector. Important milestones include:

- The adoption of the Banks and Specialized Deposit-Taking Institutions Act, 2016 (Act 930) that, among others, increased the BoG's supervisory powers, introduced the registration requirements for financial holding companies, imposed personal liability for principal officers or directors of a financial institution for non-compliance with regulatory requirements and strengthened provisions for dealing with failing institutions;
- A new Capital Requirements Directive (CRD), prepared with the aid of IMF technical assistance, that governs the definition and composition of regulatory capital and prescribes capital adequacy standards for credit risk, operational risk and market risk. A complementary (draft) Risk Management Directive will lay out more detailed requirements regarding institutions' risk management frameworks;
- Various directives (e.g. on corporate governance, fit and proper criteria, cyber risks and IT security and voluntary winding-up) and consultative documents (e.g., on mergers and acquisitions and financial holding companies); and
- Steady improvements in off-site supervision, supported by IMF technical assistance, that have increased the quality of periodic supervisory analyses and have contributed to more robust (internal) discussions of quarterly performance reports of supervised institutions.

21. The BoG intends to further strengthen its prudential framework via the implementation of Basel Pillar 2 requirements. From a regulatory perspective, the aim of the Pillar 2 process is to enhance the link between institutions' risk profiles, their risk management and risk mitigation systems, and their capital planning. The introduction of a Pillar 2 framework would usefully complement the CRD and help to further strengthen banks' risk management, including vis-à-vis risks that are not yet captured by the minimum capital requirements that form part of Pillar 1 (e.g., concentration risk, which has historically been a relevant risk factor for Ghanaian banks). Thus, the rollout of a Pillar 2 framework also presents an opportunity for the BoG to deepen its analysis of

¹⁷ More recent data is not publicly available, as the National Pensions Regulatory Authority has not published any annual reports since 2015. Similarly, SSNIT has not published financial statements and/or annual reports since 2016.

(the viability of) banks' business models—a key component of the Supervisory Review and Evaluation Process.

22. Prudential minimum requirements for bank liquidity have been under consideration for several years but have not yet been finalized. While current regulatory reporting requirements provide useful metrics on bank liquidity, such reporting per se—in the absence of clearly prescribed minimum requirements and thresholds—does not provide sufficient assurances that liquidity risks are being effectively managed.

23. Robust implementation of the BoG's new Directives on corporate governance and fit and proper persons should help foster the adoption of sound governance principles.

Acknowledging the critical role that banks' boards and senior management members play in setting strategic objectives, establishing effective control frameworks and undertaking licensed activities in a sustainable manner, the BoG issued a comprehensive Directive on bank governance for deposit-taking institutions. Leveraging international best practice, the Directive lays out detailed requirements, among others, responsibilities and composition of banks' boards (including the role of independent directors); risk management and internal control; and remuneration policies. Together with new standards on the fitness and propriety of directors, senior managers and controlling shareholders, as well as forthcoming (detailed) guidance on risk management, the BoG seeks to catalyze improvements of management effectiveness and risk control across the sector.

24. The BoG's NPL resolution strategy underscores the authorities' commitment to address the overhang of distressed debt that is burdening the banking system. Following an 85 percent growth in outstanding NPLs during 2015-2017 (from GHc 4.42 billion to GHc 8.19), the BoG has acknowledged the importance of reducing outstanding NPL to ensure that banks' credit channel can adequately support sustained economic growth. Against this backdrop, an NPL resolution strategy has been developed (box 4), factoring in suggestions from IMF staff. As part of its efforts to reduce NPLs, the BoG has stepped up enforcement of its prudential write-off requirements, which require banks to submit all loans classified as 'loss' for over two years (i.e. loans that have been overdue for at least three years), and with 100 percent loan loss provisioning, to the BoG for write-off. However, as noted in para. 7, the share of loans classified as 'loss' in the stock of outstanding NPL (almost 60 percent as of August 2019) remains high.

Ghana. Composition of nonperforming loans
(percent of total loans)

GHc 7

25. The BoG has provided further guidance to the banking industry on the preparation of financial statements, in accordance with applicable accounting standards. As of 2018, Ghanaian banks are required to prepare their financial statements in accordance with IFRS 9 which, among other objectives, seeks to ensure earlier recognition of impairment losses on loans and receivables through a forward-looking approach to measuring credit losses loans. A first version of the Guide

for Financial Publication was issued in November 2016 and a second iteration is currently being finalized.

Box 4. NPL Resolution in Ghana

Credit trends in Ghana can be explained, at least in part, by the steady increase of NPLs during the past years. NPLs adversely impact credit supply and loan pricing as banks tighten their credit stance and increase lending rates to offset rising credit losses, while also suppressing credit demand as overindebted borrowers tend to delay new credit applications. As cross-country experiences have repeatedly shown, these dynamics can trigger a vicious cycle whereby low asset quality and decreasing lending activity erodes bank profitability, hampering banks' ability to clean up their balance sheets and thus support economic growth.

The BoG's resolution strategy is organized around three pillars.

- *First*, the BoG aims to leverage its role of supervisor to foster NPL resolution to address both the stock and flow of NPLs, e.g. through enforcement of its write-off requirements, promoting better risk management and stronger underwriting practices and require the establishment of dedicated recovery units of individual banks (although detailed guidance on the latter has not been publicly disclosed).
- *Second*, it is promoting improvements in the Ghanaian credit infrastructure to mitigate credit risks for banks and support private-sector initiatives to develop a market for distressed debt. For example, efforts are ongoing to review the Borrowers and Lenders Act, 2008 (Act 773) to better support loan recovery by banks; and to strengthen the Credit Reporting Act, 2007 (Act 726) to improve (the utilization of) the credit reporting system.
- *Third*, it is seeking to facilitate debt workouts and enforcement of creditor rights through insolvency and debt enforcement reforms. While the finalization of such reforms falls outside the BoG's direct purview, it is liaising with key stakeholders (e.g., Ministry of Justice, Attorney-General's office, Ghana Association of Restructuring and Insolvency Advisors) to ensure that observed bottlenecks are addressed. Moreover, it has organized sensitization programs on banking operations for the judiciary.

Although adoption of the NPL resolution strategy is laudable, concerted efforts remain necessary to substantially reduce the stock of distressed loans. Swift finalization of insolvency and debt enforcement reforms would enable more effective recovery of distressed loans by the industry, and thus enable a redeployment of scarce resources towards sustainable credit operations. However, this does not diminish the importance of writing-off loans deemed unrecoverable in a timely fashion (as per IFRS 9). Against this backdrop, a careful review of the BoG's write-off requirements is advisable, as the current two-year timeframe does not provide sufficient incentives to ensure timely loss recognition; and the required approval by the BoG for loans that exceed a *de minimis* threshold blurs accountability and may generate delays in balance sheet clean-up. Moreover, implementation of the strategy would benefit from (i) the specification of timebound actions and clearly assigned responsibilities; (ii) involvement of other agencies (e.g. Ghana Revenue Authority to review potential tax disincentives for write-offs and workouts); and (iii) top-down monitoring of (the effectiveness of) agreed actions by an intra-agency working group.

26. To support implementation of the new regulatory architecture, the BoG has taken steps to boost its supervisory capacity. While the number of supervised institutions has diminished, resourcing allocated to the supervision of banks and SDI has steadily increased during the past years, with the 2020 budget allowing for 120 and 139 staff, respectively (up from 83 and 56 in 2015). The BoG has also increased its focus on capacity development—including through trainings and workshops (e.g. IFRS9, market and liquidity risk, consolidated supervision, cybersecurity)—and quality assurance.

27. Efforts to strengthen the supervisory and regulatory framework for non-bank financial institutions are in train. In August 2018, the NIC finalized its four-year strategic plan for strengthening the sector and improving insurance penetration. Measures envisaged in the plan include the passage of a new Insurance Bill; steps to improve supervisory effectiveness (including the issuance of supervisory risk ratings for all insurance companies and the roll-out of a risk-based capital framework); and efforts to strengthen capacity of the NIB and the industry in areas such as accounting and financial reporting, actuarial practices, governance and risk management. Following the adoption of the Securities Industry Act, 2016 (Act 929),¹⁸ the SEC aims to strengthen the regulatory framework through the adoption of various (draft) guidelines and regulations (e.g., corporate governance code for listed companies; business conduct regulations; and guidelines on licensing and financial resources of securities firms). In addition, both agencies are working to improve compliance with international best practices, e.g., by aligning the contents of the (draft) Insurance Bill with the IAIS' Insurance Core Principles.

28. The FSC is helping to deepen oversight of cross-sectoral financial stability trends. A steady increase of financial sector interconnectedness poses distinct risks, as illustrated by observed spillovers of the banking failures to non-bank financial institutions (e.g., SDI and fund managers). Further enhancements of the framework for systemic risk monitoring (including stress testing tools) and the macroprudential toolkit would help underpin the FSC's effectiveness, while careful communications (e.g., via a periodic financial stability report and publication of meeting records) would help manage public expectations and bolster accountability. In parallel, the FSC should guide the development of crisis management plans and help test their effectiveness through periodic simulations.

F. Concluding Remarks

29. While actions taken by the BoG have helped underpin confidence in deposit-taking institutions, further efforts to strengthen the financial sector remain necessary. For the *banking sector*, the capital shortfall and structural loss-making of a state-owned bank require recapitalization and/or wind-down options, based on 'least-cost' considerations. Also, measures to reduce the overhang of NPL require acceleration; banking sector efficiency could be improved; and actions to boost the earnings potential of the bridge bank would benefit medium-term privatization prospects. For *SDI*, reimbursement of eligible depositors should be completed as quickly as possible,

¹⁸ Also see presentation from the SEC on emerging issues in the fund management industry, http://sec.gov.gh/wp-content/uploads/Speeches-and-Presentations/SEC_Reforms_for_the_Fund_Management_Industry.pdf.

while respecting the upfront reimbursement cap of GHc 10,000 (with deviations solely motivated by systemic risk considerations, as informed by transparent criteria). Residual weaknesses in RCB should be addressed on a timely basis, and capitalization of ‘going concern’ SDI strengthened. For other *non-bank financial institutions*, the authorities should continue to effect orderly exits of non-viable firms, while ensuring that viable institutions boost their financial buffers. The sharp increase in customer complaints underscores the importance of strengthening the framework for market conduct.

30. Completing ongoing reforms is critically important to strengthen financial sector oversight.

Implementation of a robust Pillar 2 framework would help ensure that all banks maintain financial buffers that are commensurate with their risk profile, and possess adequate frameworks to manage the risks that they are exposed to. Similarly, implementing risk-based capital requirements for the insurance industry would help ensure that capital requirements adequately reflect institution-specific risks. Although continued focus on risk-based supervision, sound supervisory judgment and enforcement practices can help underpin supervisory effectiveness, reforms should coincide with further capacity building (including resource augmentation), stronger safeguards to ensure operational independence of supervisory agencies and more robust accountability frameworks.

31. More intrusive supervision is needed to foster effective board oversight and risk management.

The clean-up has highlighted the importance of robust assessments of governance arrangements and risk management practices of financial institutions. Prudential standards and supervisory practices with regard to related party exposures would benefit from further review, given that such transactions have played a prominent role in some of the banking failures that materialized between 2017-2019. In particular, it is important to ensure that definitions are sufficiently broad; transparency of ultimate beneficiary owners of corporate entities is enhanced; and supervisory diagnostics are sufficiently thorough to detect close linkages between financial institutions and their counterparties. Intervention practices should also be reinforced to ensure that weaknesses are effectively remediated before they can cause lasting damage to institutions’ solidity.

32. The financial safety net can be further improved, drawing on experiences obtained during the clean-up.

The overhaul of banking sector legislation, completed in 2016, proved invaluable for handling distressed institutions, but the clean-up process also highlighted scope for further improvements. These include (i) legal amendments that clarify resolution triggers, strengthen safeguards in line with international guidance¹⁹; and establish funding mechanisms for resolution purposes; (ii) the introduction of recovery planning requirements; (iii) enhancements of the new DPS to, among others, enable financial contributions on a least-cost basis to deposit transfers (which is a more efficient method of protecting depositors than reimbursement), strengthen backstop funding arrangements (e.g., via a credit line from the Ministry of Finance), and provide further guidance on the fund’s minimum target size; (iv) strengthen the BoG’s framework for the early detection of

¹⁹ Financial Stability Board’s Key Attributes of Effective Resolution Regimes, published in October 2014, <https://www.fsb.org/2014/10/key-attributes-of-effective-resolution-regimes-for-financial-institutions-2/>.

liquidity strains and the provision of liquidity support, in line with staff recommendations; and (v) full operationalization of BoG's resolution office, duly segregated from its supervisory functions.

33. The Ghanaian authorities are well positioned to boost financial inclusion through implementation of the National Financial Inclusion and Development Strategy (NFIDS).

Following a substantial improvement in financial inclusion during the past years, the authorities are now seeking to increase access to formal financial services to 85 percent by 2023, partly by leveraging financial technology to introduce new products and improve the delivery thereof. The comprehensive governance structure envisaged in the NFIDS—with a council comprised of senior government officials, a steering committee of department and unit heads of the various stakeholders and a coordinating secretariat, housed at the Ministry of Finance—should aid implementation of the 50+ actions envisaged in the NFIDS, but capacity building; mobilization of funding to support actions; and timely data gathering (to support progress monitoring) remain critically important. Publication of the strategy and periodic communications about achievements will help foster accountability.

Figure 1. Financial Stability Indicators for Sub-Saharan Africa**Capital adequacy**

(% of risk-weighted assets, 2018 or latest available)

Sources: IMF

Liquid assets

(% of short-term liabilities, 2018 or latest available)

Sources: IMF

Nonperforming loans

(% of total gross loans, 2018 or latest available)

Sources: IMF

Loans to deposits

(percent of gross loans, 2018 or latest available)

Sources: IMF

Interest margin

(% of gross income, 2018 or latest available)

Sources: IMF

Non-interest income

(% of gross income, 2018 or latest available)

Sources: IMF

Figure 2. Interest Margin Decomposition, 2014–2018

Source: IMF staff calculations.