FISCAL CONSOLIDATION TO ACCELERATE GROWTH AND SUPPORT INCLUSIVE DEVELOPMENT

GHANA PUBLIC EXPENDITURE REVIEW

THE WORLD BANK

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WORLD BANK GROUP

ABBREVIATIONS AND ACRONYMS

CAGD	Controller and Accountant-General's Department
CHAG	Christian Health Association of Ghana
COCOBOD	Ghana Cocoa Board
CSIR	Council for Scientific and Industrial Research
ECOWAS	Economic Community of West African States
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
FDI	Foreign direct investment
FOB	Free-on-board
FWSC	Fair Wages and Salaries Commission
GCAP	Ghana Commercial Agriculture Project
GET Fund	Ghana Education Trust Fund
GHS	Ghana Health Services
GIFMIS	Ghana Integrated Financial Management System
GLSS	Ghana Living Standards Survey
GNI	Gross National Income
GRA	Ghana Revenue Authority
IGF	Internally Generated Funds
IMF	International Monetary Fund
JHS	Junior High School
MMDAs	Metropolitan, Municipal, and District Assemblies
MoE	Ministry of Education
MoF	Ministry of Finance
MoFA	Ministry of Food and Agriculture
MoH	Ministry of Health
MLGRD	Ministry of Local Government and Rural Development
NACCA	National Council for Curriculum and Assessment
NHIS	National Health Insurance Scheme
OECD	Organization for Economic Co-operation and Development
PFM	Public Financial Management
PPPs	Public-Private Partnerships
SADA	Savannah Accelerated Development Authority
SHS	Senior High School
SOEs	State-owned Enterprises
SSA	Sub-Saharan African
SSNIT	Social Security and National Insurance Trust
SSSS	Single-Spine Salary Structure

STEM	Science, Technology, Engineering and Mathematics
TVET	Technical and Vocational Education and Training
VAT	Value-added Tax

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TABLE OF CONTENTS

TABLE OF FIGURES

TABLE OF TABLES

TABLE OF BOXES

EXECUTIVE SUMMARY

A.1 Ghana has experienced an extended period of robust growth since the early 2000s, supported by a favorable external environment and large investment inflows, particularly in the extractive industries. In 2011, as the start of oil production drove a surge in per capita income, Ghana graduated from low-income to lower-middle-income status. Despite the key role of the extractive industries, recent growth has been relatively inclusive, and Ghana achieved its Millennium Development Goal of halving the poverty rate by 2015.

A.2 However, macroeconomic conditions have deteriorated since 2012, giving rise to substantial domestic and external imbalances. Although external shocks have underscored Ghana's vulnerability to global commodity and financial markets, the recurring nature of its imbalances reflects deeper structural deficiencies in its macroeconomic policies and public financial management (PFM) framework. A heavy focus on commodity exports has accelerated Ghana's recent growth, but the country's economic outlook increasingly hinges on a narrow range of volatile commodity prices. Sustained increases in education and health spending have enabled the government to make important progress in improving key social development indicators, but steadily rising public expenditures in a context of persistently weak revenue performance has undermined the stability of the fiscal accounts. Intensifying global headwinds have revealed the extent to which recent macroeconomic and public expenditure trends have exposed the country to unsustainable fiscal and current-account deficits.

A.3 In an effort to stabilize the economy and shore up the public finances, the government adopted a multiyear fiscal stabilization plan in mid-2015, with support from the International Monetary Fund (IMF), the World Bank, and Ghana's other development partners. After achieving a substantial degree of fiscal consolidation in 2015, Ghana missed its 2016 fiscal target by a large margin. The budget numbers indicate that the fiscal slippage was due to the public revenue shortfall and rising expenditure pressures in the run-up to the December 2016 elections, which also caused the government to accumulate large amount of new arrears. The consolidation program is expected to get back on track in 2017 and continue through 2018, with further fiscal adjustments focused on both public revenue and expenditures. Progress on the structural reform agenda has been uneven, and in order to achieve its objectives the government will need to refocus its attention on measures to improve PFM. Lessons learned from previous reform efforts underscore the critical importance of a credible and enduring political commitment to the full implementation of the reform agenda.

A.4 Ghana's recent transition to lower-middle-income status complicates its fiscal consolidation efforts, as the county now faces diminished inflows of external assistance and limited access to concessional borrowing. Meanwhile, the emerging oil sector presents both opportunities and challenges, as it is projected to provide a strong but temporary boost to economic growth and fiscal revenue. These factors highlight the critical importance of macroeconomic management and structural fiscal reform. Addressing Ghana's macroeconomic vulnerabilities while sustainably expanding the available fiscal space for capital investment and social spending will be pivotal to broad-based growth, job creation, and the achievement of the government's development objectives.

A.5 This Public Expenditure Review (PER) focuses on the policy areas most relevant to Ghana's ongoing fiscal consolidation and medium-term macroeconomic outlook. Its subject

areas are designed to reflect and complement the government's commitment to strengthen PFM in preparation for the anticipated surge in oil revenues. Chapter 1 assesses options for sustainably reducing nondiscretionary expenditures and enhancing the efficiency of public investment. Chapter 2 explores strategies for improving domestic revenue mobilization by streamlining tax exemptions and other fiscal incentives. Chapter 3 analyzes the government's wage bill, its largest recurrent budget item, and considers measures to better manage the size and compensation structure of the public sector workforce. Chapters 4 and 5 focus on policies that will enable Ghana to leverage its positive medium-term economic prospects—including rising oil revenues—to achieve a more sustainable and inclusive development pattern. As a healthy, educated labor force is crucial to meet the evolving demands of a dynamic economy, Chapter 4 evaluates public spending in the education and health sectors and its impact on human capital formation. Finally, Chapter 5 examines public spending in the agriculture sector, which despite its diminishing economic size will remain crucial to employment and poverty reduction over the long term, particularly after the anticipated boom in oil production runs its course.

MACROECONOMIC MANAGEMENT AND FISCAL POLICY

A.6 The government seeks to resume fiscal consolidation after a large slippage in 2016, and deeper structural reforms will be necessary to achieve and sustain the fiscal targets over the medium term. After successfully cutting the fiscal deficit from 10.1 percent of GDP in 2014 to 6.3 percent in 2015, the fiscal deficit rose to 8.7 percent in 2016. Nevertheless, fiscal consolidation efforts are ongoing, and in 2017 budget, the new government has set a fiscal deficit target of 3 percent of GDP by 2018 and plans to adjust expenditures and raise revenues. The limited scope to further reduce the investment budget underscores the importance of controlling current expenditures, especially spending on the wage bill and debt service, which are the government's two largest expenditure items.

A.7 As the external environment deteriorated, the government accumulated substantial debt to finance its large fiscal deficits. Not only has the debt stock risen, but both external and domestic borrowing costs rapidly increased. Ghana's most recent debt sustainability analysis found the country to be at high risk of external debt distress and highlighted important vulnerabilities related to both its domestic and external debt stocks. To curb the accumulation of new debt the government will need to achieve the primary fiscal surplus of 0.4 percent as planned, while improving macroeconomic conditions should reduce financing costs over the medium term

A.8 Proactive debt management will be necessary to reduce interest payments and mitigate risks to the public debt profile. While the government has established buffers for certain debt obligations, it has yet to fully implement its medium-term debt management strategy. A macroeconomic management capacity-building project currently being implemented with support from the World Bank should enable the authorities to prepare a medium-term debt strategy, formulate an annual borrowing plan, improve treasury management and forecasting, enhance debt reporting, and strengthen operational risk management.[1] To attenuate the risk of contingent liabilities the government must closely monitor all debt issued by central government agencies, subnational authorities, and state-owned enterprises (SOEs).

[1] The Ghana Economic Management Strengthening Technical Assistance Project was launched in November 2016.

A.9 Though fiscal consolidation is essential to the stability of the public finances, public investment has fallen well below the levels of comparable countries, both in Sub-Saharan Africa and worldwide. Low rates of public investment have negative implications for growth, job creation, and public service delivery. Closing the infrastructure gap with other middle-income countries will require rebalancing expenditures in favor of public investment, which further underscores the importance of maintaining control over current expenditures, particularly the wage bill and debt service.

A.10 Improving value for money in public investment would enhance the economic returns to capital spending even within its narrow fiscal envelope.[2] A recent joint IMF-World Bank assessment found weaknesses at all stages of Ghana's investment cycle, and in November 2016 the government launched a public investment reform program with technical assistance from the World Bank.[3] However, high levels of country risk continue to discourage private investment, and facilitating greater private sector participation in infrastructure projects could augment the government's limited resources. Over the medium term, enhancing public investment efficiency will enable the authorities to leverage rising oil revenues to accelerate growth and support sustainable poverty reduction.

A.11 The recurring nature of Ghana's large fiscal imbalances reflects important structural problems in PFM. Budgetary rigidity has narrowed the scope for discretionary spending, while unpredictable expenditure execution has undermined the credibility of fiscal policy and driven the accumulation of arrears. The government implemented the Ghana Integrated Financial Management System (GIFMIS) in 2013, but it has yet to achieve its full potential.

A.12 Integrating all sources of budgetary financing and consolidating expenditure recording in a single database would further strengthen PFM. Once all funding sources have been incorporated into the GIFMIS, the government should consider adopting the BOOST budget and expenditure tool.[4] BOOST is designed to improve budgetary decision-making, facilitate fiscal policy analysis, enhance transparency, and promote public accountability by compiling all revenues and expenditures according to a consistent format and methodology.

A.13 The authorities are attempting to limit the accumulation of arrears by implementing a commitment-control mechanism and a pay-to-procure system across the public sector. The pay-to-procure system was established in June 2015 with support from the World Bank. It is expected to encompass payments from all ministries and public agencies, statutory funds, internally generated financing, and donor-funded projects.

A.14 Recent legislative reforms have significantly improved the legal framework for PFM but important systemic weaknesses remain. While the new public financial management law introduces key principles of fiscal responsibility, it does not mandate that Parliament approves the government's fiscal strategy and rules or require that the strategy and rules be made public. The absence of both parliamentary approval and publication requirements reduces the law's impact on transparency and accountability.

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[2] Public investment in the most efficient countries typically generates twice as much value for money as public investment in the least efficient countries. See: IMF, 2015a.

[3] IMF-World Bank, 2016.

[4] BOOST is the product of a World Bank-led collaboration. It is designed to be integrated with GIFMIS. See: http://wbi.worldbank.org/boost/

A.15 While expenditures have grown rapidly over the last four years, public revenues have remained essentially unchanged as a share of GDP. Ghana's tax revenues remain far below the levels of regional comparators, such as South Africa, Mozambique, Malawi, and Senegal. Moreover, actual tax revenue collection is far short of what Ghana's level of economic and institutional development would predict, and the country's unexploited tax potential was estimated at about 5 percent of GDP in 2014. Broadening the tax base and improving tax compliance will be crucial to control borrowing costs and manage the growth of the debt stock. The new Income Tax Act that took effect in 2016 represents a significant improvement over the previous legislation, and the government is currently developing a business-intelligence system with support from the World Bank. The system will enable the tax authorities to extract data from multiple sources to compile analytical reports, improve tax compliance, broaden the tax base, and strengthen auditing and enforcement.

A.16 The rise of the oil sector will deliver a large but temporary increase in public revenue. The oil sector is expected to generate an additional US$23 billion in public revenue between 2016 and 2036. Oil revenues are projected to peak in 2023 and decline thereafter, with production ceasing entirely by 2036. However, these revenue projections are highly sensitive to trends in international commodity markets, and if oil prices fail to recover, Ghana's total public oil revenue could fall by more than half. Leveraging this short-term revenue surge to promote sustainable development—while also hedging against the adverse economic and public administrative effects associated with natural resource booms—poses a considerable challenge. While Ghana has developed a sound revenue-management strategy, the oil-revenue projections that underpin it have repeatedly proven inaccurate, often substantially so. As the sector's fiscal importance increases over the medium term, the risk that an oil-revenue shortfall could destabilize the budget will rise with it.

A.17 The government will need to incorporate the transient nature of oil revenues into its medium-term budget strategy. By law, a minimum of 70 percent of budgetary oil revenue must finance public investment in priority sectors, including infrastructure development, institutional capacity-building, and environmental protection. However, it is unclear what provisions, if any, have been made to manage the medium-term capital outlays and recurrent spending obligations associated with new infrastructure assets and expanded public service provision.

A.18 Effectively transforming resource revenues into productive infrastructure and improved human capital will require a well-designed investment strategy combined with structural improvements in expenditure efficiency. While a long-term expenditure strategy will be vital to maintain fiscal stability in the wake of the oil boom, sustaining economic growth as oil output declines will require structural reforms designed to increase economic competitiveness and promote diversification in the non-resource sectors. Reducing tax expenditures will enable the government to broaden its tax base and mitigate its reliance on unsustainable resource revenues. Proactive wage-bill management will expand the fiscal space available for capital investment and public service provision, broadening the distribution of returns to resource-driven growth. A sustained focus on health and education will build the capacity of the national workforce, bolstering economy-wide competitiveness and facilitating economic diversification beyond the extractive industries. Finally, continued attention to the agricultural sector will be vital as the rising oil industry and the growing non-tradable service sector temporarily draw labor and capital away from agricultural production. Continued investment in both the food and cash-crop subsectors will not only have a positive impact on poverty reduction, but a thriving rural economy will be better equipped to absorb excess labor and capital after the country's oil reserves are depleted.

TAX EXPENDITURES

A.19 Ghana provides a wide range of tax exemptions and incentives designed to reduce the tax burden on certain economic sectors and income groups. These "tax expenditures" are not fully recorded in the budget and are far less visible than more traditional forms of public spending, yet they impose a steep fiscal cost. The foregone revenue from Ghana's tax expenditures amounted to an estimated 5.2 percent of GDP in 2013. Value-added tax (VAT) exemptions and preferential VAT treatment alone reached 4.2 percent of GDP, while customs exemptions represented another 0.9 percent. While statistical issues complicate comparisons between years, similar data for 2014 suggest that the foregone revenue from tax expenditures has remained broadly stable at about 5 percent of GDP. Moreover, as their purpose is to realign incentives in favor of certain types of firms and taxpayers, tax expenditures inevitably create economic distortions and give rise to vested interests. Once established, tax expenditures often prove difficult to eliminate, as their beneficiaries will strive to defend and expand them regardless of their social or economic value.

A.20 Accurate cost estimates are essential for effective oversight and the analytical basis for reforming tax expenditures. The government needs to build its capacity to estimate regularly all foregone revenues arising from tax exemptions and incentives by improving the data collection in all areas of tax administration and closing significant gaps in the data on income-tax expenditures for mining firms and free-zone enterprises. Accurate cost estimates are essential to assess the cost effectiveness of the tax exemptions and to form the analytical basis to improve the tax-expenditure policies.

A.21 Ghana's tightening fiscal envelope presents a critical opportunity to assess the cost-effectiveness of its tax expenditures and evaluate potential policy alternatives. Reforming tax expenditures could enable the government to boost domestic revenue generation and enhance the efficiency of fiscal policy without compromising its expenditure priorities. Tax-expenditure policies that advance worthwhile social or economic objectives should be reformed to enhance their effectiveness, while those that serve no clear policy purpose should be eliminated.

A.22 Some tax expenditures are designed to alleviate the tax burden on lower-income households, while others attempt to incentivize the consumption of goods and services that generate positive externalities. When reviewing tax expenditures targeted to low-income households, policymakers should evaluate the impact of VAT exemptions and zero-rating, as some of these tax benefits also go to middle and high income consumers who could afford to pay the VAT. A socially optimal option would be to collect the VAT on all consumption and use the revenue to directly subsidize consumption of the poor through cash transfers. However, such consumption that results in significant externalities such as preventive health care like bed nets and vaccines and primary education may be relieved of any VAT burden ideally through zero-rating. Tax expenditures on consumer goods that produce no significant positive social or economic spillovers should be identified and eliminated.

A.23 Trade-related tax expenditures should be consolidated into a holistic export-promotion strategy. While this strategy may include a narrow range of tax incentives, it should focus on measures to promote domestic competition and foster regional integration. Tax expenditures can bolster the export competitiveness of targeted sectors, but they can also prop up industries that are structurally uncompetitive. Moreover, tax expenditures frequently accrue to industries and sectors that would be viable without them. Customs exemptions on manufacturing

inputs and capital goods may be retained if they contribute to a clear sectoral development strategy, but exemptions on most consumer goods should be phased out. The special exemption permits approved by Parliament should also be eliminated, and exemptions should not be applied to individual firms, but only to classes of goods and services.

A.24 Policymakers should evaluate the impact of tax holidays and location-based incentives such as "free zones," as both policy types are inherently inefficient and prone to abuse. The government should investigate the behavior of businesses that benefit from these policies and develop a strategy to reduce economic distortions and curb tax avoidance. All commercial and industrial tax expenditures should be routinely evaluated to determine which firms and sectors are benefitting from preferential tax treatment and to assess the extent to which supporting these industries is consistent with Ghana's strategic development goals.

THE WAGE BILL

A.25 The success of the fiscal adjustment will hinge on the government's ability to control the growth of the wage bill. The shift to a single-spine salary structure (SSSS) in 2011 caused a substantial one-off increase in public sector wages. While the new consolidated bargaining regime and the standardization of wages and benefits should, in principle, enable the government to more effectively manage the growth of the wage bill, to date the reform effort has yielded mixed results. Structural weaknesses in the organization of the salary structure, the large share of allowances in total compensation, and inherent conflicts of interest in the process for determining the compensation of high-level officials continue to pose significant challenges.

A.26 A selective public sector hiring freeze implemented in 2015 successfully reduced the size of the wage bill as a share of GDP, and it is expected to continue declining in relative terms through 2018.[5] To further reduce the wage bill, the authorities will need to maintain the hiring freeze and allow attrition to reduce the size of the public sector workforce. The government has also taken important steps to identify and eliminate payroll irregularities, rationalize allowances, curtail the use of cash payments, and increase the overall transparency and accountability of the payroll system. In 2015, a consolidated bargaining process allowed an annual wage increase to be negotiated for the majority of the public sector workforce prior to the 2016 budget preparation, a significant improvement over the previous system. Going forward, annual wage increases should be limited to accommodate a growing number of education and health staff. The development of a new wage model backed by a functional review of service-delivery arrangements could enhance the efficiency of personnel spending and improve wage parity with the private sector.

A.27 Additional efforts to stimulate private-employment growth and narrow the public-sector wage premium could ease public employment pressures over the medium-to-long term. Expanding the range of employment opportunities outside the public sector will become increasingly crucial as the share of workers with tertiary education continues to rise.

[5] This freeze does not apply to the education and health sectors, which have been identified as priority areas for inclusive development. The combined workforce of these two sectors increased by approximately 8,000 in 2016 alone.

HUMAN CAPITAL

A.28 To achieve its development objectives and maintain its economic competitiveness as a middle-income country, Ghana must continue to build its human capital stock. Sustainable and inclusive growth requires a healthy, educated labor force with the skills and flexibility necessary to meet the evolving demands of a dynamic economy. Robust investment in public health and education, complemented by high-quality physical infrastructure and an efficient, sophisticated public administration, will be vital to build Ghana's labor productivity and attract increased investment in the non-resource economy.

A.29 While the supply of education services has increased rapidly over the last decade, access to essential health services remains limited. Moreover, rising expenditure levels have not generated a commensurate improvement in education and health outcomes, as both sectors suffer from serious deficiencies in service quality. Moreover, vast disparities between rural and urban areas and between low- and high-income households narrow the distribution of benefits.

A.30 While each sector faces its own idiosyncratic challenges, both suffer from fragmented administrative structures and complex, partially opaque financial arrangements. The diffusion of programmatic responsibilities across a range of government agencies impedes efforts to design appropriate institutional and policy reforms and complicates the monitoring and evaluation of programs against strategic objectives. These challenges are compounded by the prevalence of off-budget donor financing in both sectors. In addition, the bulk of the recent increase in public health and education spending has gone to finance wages and benefits for a growing workforce, while the budgets for other recurrent expenditures and capital investment have risen marginally or not at all.

A.31 To improve education quality, the government will need to expand the fiscal space for nonwage recurrent spending in the short term and capital investment in the medium term. The introduction of performance-based incentives could improve overall educational quality, while stricter penalties for teachers who fail to report to their posts could help address important regional disparities. Further fiscal decentralization could afford district education officers the discretion to hire teachers locally, to terminate and replace ineffective teachers, and to allocate their budgets according to contextual priorities. At the district level, establishing better monitoring and oversight systems could greatly improve educational outcomes, especially in poor and rural schools.

A.32 Ghana's public health budget is modest by the standards of other lower-middle-income countries, and its health indicators lag well behind those of most of its peers. The inefficient allocation of resources between public and private facilities, between primary, secondary and tertiary facilities, and between different types of health services underscores the multidimensional challenge of health sector reform. More effective multi-stakeholder coordination and tighter monitoring and accountability mechanisms could improve the performance of the health sector in the short term, while increased public spending will be necessary to achieve the government's sectoral development objectives over the medium term, especially given the anticipated decline in donor support following Ghana's transition to middle-income status. To enhance the efficiency of public health spending the investment budget should be rebalanced towards primary care, and policymakers should encourage the development of alternative treatment models in primary-care facilities.

A.33 Moreover, the ineffective health financing system in Ghana has led to increased liabilities in the sector. While the government needs to address existing liabilities, more needs to be done to make the financing system more effective. A mechanism needs to be established to allocate resources to essential preventive programs. There should be explicit incentives for providers to deliver preventive health services at good quality, systematic interventions to address inefficiency in the overall health sector, including the National Health Insurance Scheme (NHIS), and strong accountability mechanisms to improve service coverage and health outcomes

THE AGRICULTURAL SECTOR

A.34 Though the rapid growth of the extractive industries has diminished its relative economic size, agriculture remains vital to employment, income generation, and poverty reduction in Ghana. While agriculture accounts for just one-fifth of Ghana's GDP, it employs nearly half of the national workforce and provides livelihoods for many of the country's poorest households. Cocoa, the country's major export crop, is responsible for a full 20-25 percent of total foreign-exchange earnings. Agriculture is especially critical in northern Ghana where poverty rates range from 50 to 70 percent and where the country's ongoing transition to a more urbanized industrial and service-based economy has had only a limited impact on income and employment.

A.35 Despite its economic potential, Ghana's agricultural sector remains severely underdeveloped. Low yields for staple crops undermine food security, and rising food imports are weakening the impact of cocoa exports on the current account of the balance of payments. Ghana has substantial unexploited potential in both the cash crop and livestock subsectors, and the prevalence of poverty among rural households intensifies the pro-poor impact of agricultural investment. Due to its capacity to absorb excess labor from other economic sectors, a robust rural economy can play a key role in stabilizing employment dynamics, particularly in the wake of a resource-driven economic expansion.

A.36 In recent years, the growth of the extractive industries and the domestic service sector has diverted investment and labor away from agriculture. Annual production is erratic, and output growth has repeatedly failed to meet the government's target of 6 percent per year. Moreover, the increasing economic prominence of the extractive industries and the rapid expansion of the service-based urban economy threaten to distract the attention of policymakers away from the rural sector. Public spending on agricultural development is low and declining, and the Ministry of Agriculture's budget barely covers its day-to-day operations. Sectoral public investment projects tend to be extremely modest, and structural deficiencies in the project cycle diminish their effectiveness.

A.37 In the context of Ghana's ongoing fiscal consolidation, the development of the agricultural sector presents a major opportunity to boost growth through better expenditure targeting. Agricultural research is crucial to productivity and competitiveness, yet it remains chronically underfunded. Refocusing sectoral resources on the commercialization of smallholder farming and the integration of smallholder farmers into agricultural value chains could significantly boost production. Efforts to link smallholder farmers to markets or to aggregate production throughout-grower schemes could accelerate rural income growth, and eliminating price distortions that discourage investment in the cocoa subsector could boost export earnings. A new strategy for agricultural investment and policy reform that effectively targets these bottlenecks could deliver major gains in poverty reduction, employment growth, social development and food security at a relatively low fiscal cost.

A.38 The key policy measures with timeline and key actors involved are summarized in the policy matrix below.

Objectives	Policy and Institutional Measures	Timeframe	Key Actors
Contain wage bill growth and managing public sector wage bill	Limit annual wage increases to accommodate a growing number of education and health staff.	Short to Medium Term	MoF/ MoEL/ FWSC/PSC
	Eliminate payroll irregularities while curbing the use of allowances, and eliminating cash payments	Short Term	MoF/ CAGD/PSC Currently being supported by the World Bank PFM project
	Maintain the hiring freeze and allowing attrition to decrease the size of the public-sector workforce.	Short to Medium Term	MoF/OHCS/PSC
	Undertake a functional review of service-delivery arrangements and better wage modeling to identify further areas for fiscal savings.	Medium Term	OHCS/ MoF/ FWSC
	Improve transparency through full disclosure of the compensation offered to Article 71 officeholders consistent with international best practices.	Medium Term	Office of the President/ MoF
	Expand the use of modern performance-evaluation techniques across the public sector as the basis for wage increases and promotions.	Medium Term	OHCS/ FWSC
	Take actions to stimulate private-employment growth and narrow the public-sector wage premium to ease public employment pressures over the medium-to-long term	Short to Medium Term	MoF/ FWSC
Reduce interest payment through proactive debt management	Maintain a primary surplus to limit the accumulation of new debt.	Short Term	MoF
	Prepare a medium-term debt strategy, formulate an annual borrowing plan, improve treasury management and forecasting, create treasury single account, enhance debt reporting, and strengthen operational risk management.	Short Term	MoF/CAGD/BoG Currently being supported by the World Bank PFM and GEMS TA projects
	Closely monitor all debt issued by central government agencies, subnational authorities, and state-owned enterprises (SOEs).	Short Term	MoF/ MMDAs/ SOEs /MLGRD Currently being supported by the WB GEMS TA project
Improve efficiency of public investment	Improve public investment management capacity and reform the areas of the project cycle identified as problematic in the 2016 PIMA assessment.	Medium-term	MoF/NDPC/ MDAs/ SOEs Currently being supported by WB GEMS TA project
	Streamline the fragmented strategic planning among the ministry, special statutory funds and other government agencies in sectors	Short to Medium Term	MoF/ NDPC/ MDAs/SFs/SOEs;
	Include a consolidated detailed investment plans for each sector in the national budget	Short Term	MoF
Improve budget management and execution	Integrate all sources of budgetary financing and consolidating expenditure recording in GIFMIS	Short Term	MoF/CAGD/MDAs; MMDAs; SFs. Currently being supported by the World Bank PFM project
	Adopt the BOOST budget and expenditure tool	Short Term	MoF/ CAGD
	Implement a commitment-control mechanism and a pay-to-procure system across the public sector across all public administration	Short to Medium Term	MoF/CAGD/MDAs/ MMDAs/SFs. Currently being supported by the World Bank PFM project

	Improve the accountability and transparency features of the PFM laws	Short Term	GoG
	Better manage the possible volatility of oil revenue by avoiding overly optimistic revenue projections; incorporating the transient nature of the oil revenue into medium-term budget strategy	Short to Medium Term	MoF
Improve the domestic revenue mobilization through reforming tax exemptions	Build capacity to estimate tax expenditures accurately and published as part of the annual budget process.	Short Term	MoF/ GRA
	Ensure that tax expenditures are properly recorded on income-tax returns, and that mandatory tax filing is enforced even among firms that have no tax liability. As in all areas of tax administration, move toward electronic data collection and close significant gaps in the data on income-tax expenditures for mining firms and free-zone developers.	Short to Medium Term	MoF/GRA
	Evaluate the impact of VAT exemptions and zero-rating, and identify and eliminate the ones with no significant positive social or economic spillovers.	Short to Medium Term	MoF/GRA
	Consolidate trade-related tax expenditures into a holistic export-promotion strategy that promotes domestic competition and foster regional integration.	Short to Medium Term	MoF/GRA
	Award exemptions only to classes of goods and services, not to individual firms.	Short Term	MoF/GRA
	Retain the customs exemptions on manufacturing inputs and capital goods only if they contribute to a clear sectoral development strategy, and phase out the exemptions on most consumer goods.	Short Term	MoF/GRA
	Improve oversight on firms and sectors that are benefitting from preferential tax treatment and assess the extent to which supporting these industries is consistent with Ghana's strategic development goals.	Medium Term	MoF/GRA
	Eliminate the special exemption permits approved by Parliament	Short Term	MoF/GRA
	Evaluate the impact of tax holidays and location-based incentives such as "free zones," as both policy types are inherently inefficient and prone to abuse.	Medium Term	MoF/GRA
Build human capital through investment in public education and health	Streamline the strategic responsibilities and improve coordination across government agencies and other key actors involved in planning, financing, and oversight in public education and health sectors.	Short to Medium Term	Education: MoF/MoEd/GES/ GETFund/DP Health: MoF/MoH/NHIA/DP
	Expand the fiscal space for non-wage recurrent public spending and capital investment in public education and health sectors.	Medium Term	MoF/MoEd/MoH
	Introduce performance-based incentives and	Short Term	MoF/MoEd

	stricter absenteeism penalties for teachers.		
	Progress in fiscal decentralization and establish better monitoring and oversight systems at the district level to improve educational outcomes, especially in poor and rural schools.	Short to Medium Term	MoF/MoEd/MMDAs
	Better align the spending between public and private facilities, between primary, secondary and tertiary facilities, and between different types of health service.	Short to Medium Term	MoF/MoH/NHIA
	Increase capital spending towards primary care, and encourage the development of alternative treatment models in primary-care facilities.	Short to Medium Term	MoF/MoH/NHIA
	Allocate resources to essential preventive programs and provide incentives for good quality preventive health service delivery.	Short to Medium Term	MoF/MoH/NHIA
	Reform NHIS to improve its efficiency and financial sustainability by controlling expenditure, increasing efficiency, enhancing accountability and empowering citizens.	Short to Medium Term	MOF/MOH/NHIA
Revitalize Agricultural Growth	Facilitate the adoption of new technologies through increased focus and funding for agricultural research and regulatory reform.	Short to Medium Term	MoFA
	Foster private investment in the sector through land-tenure reform; clarifying and reinforcing intellectual property rights, strengthening quality assurance in seed markets, and reinforcing seed-labeling rules.	Short to Medium Term	GoG/MoFA
	Refocus the regional agricultural spending towards the SADA zone to accelerate gains in output growth, poverty reduction, and rural income generation.	Short to Medium Term	MoFA
	Increase investment in irrigation, the development and introduction of drought-tolerant and shorter-duration crop varieties to build resilience to climate change.	Short to Medium Term	MoFA/GIDA
	Modernize the cocoa value chain, and reform the COCOBOD's institutional arrangements, transparency and policy framework to enhance the efficiency of cocoa production and ensure the long-term competitiveness of cocoa exports	Short to Medium Term	Office of the President/MoF/ COCOBOD

Notes: MoF (Ministry of Finance); CAGD (Controller and Accountant-General's Department); COCOBOD (Ghana Cocoa Board); FWSC (Fair Wages and Salaries Commission); GRA (Ghana Revenue Authority); MoEL (Ministry of Employment and Labour Relations); NDPC (National Development Planning Commision); BoG (Bank of Ghana); GES (Ghana Education Trust Fund); GIDA (Ghana Irrigation Development Authority) GoG (Government of Ghana); MDAs (Ministries, Departments and Agencies); MMDAs (Metropolitan, municipal, and district assemblies); MoEd (Ministry of Education); MoFA (Ministry of Food and Agriculture); MoH (Ministry of Health); MoLN (Ministry of Lands and Natural Resources); MLGRD (Ministry of Local Government and Rural Development); NHIA (National Health Insurance Authority); OHCS (Office of the Head of Civil Service); PSC (Public Services Commission); SFs (Statutory Funds); and SOEs (State-owned enterprises).

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CHAPTER 1 STRENGTHENING FISCAL POLICY AND IMPROVING MACROECONOMIC MANAGEMENT

Several decades of robust economic growth enabled Ghana to achieve substantial progress in reducing poverty and promoting shared prosperity. However, macroeconomic conditions have deteriorated since 2012, giving rise to large domestic and external imbalances. While public revenue has remained relatively stable, spending has steadily increased, leading to a widening fiscal deficit and a rising debt burden. The wage bill ballooned in the wake of reforms to the public sector compensation structure, and in recent years a substantial uptick in non-concessional borrowing has pushed up interest payments. Consequently, Ghana's fiscal deficit continued to widen even as public investment fell, and the government's consolidation efforts were unable to prevent the accumulation of arrears. In 2013, the government adopted a multi-year plan to reduce the fiscal deficit, and since 2015 this initiative has garnered support from the IMF, the World Bank, and Ghana's other development partners. After achieving a substantial degree of fiscal consolidation in 2015, Ghana missed its 2016 fiscal target by a large margin. The budget numbers indicate that the fiscal slippage was due to the public revenue shortfall and rising expenditure pressures in the run-up to the December 2016 elections, which also caused the government to accumulate large amount of new arrears. The consolidation program is expected to resume in 2017 and continue through 2018, with further fiscal adjustments focused on both public revenue and expenditures under the new government elected in December 2016.

The recurring nature of Ghana's large fiscal imbalances reflects serious structural deficiencies in PFM. In tandem with its fiscal consolidation efforts, the government has launched a structural reform program designed to strengthen its budget planning, execution, monitoring, and reporting capacity and to expand the coverage of its public financial information and PFM systems. The authorities are planning to adopt further measures to strengthen revenue collection and improve public investment and public debt management in 2017. Despite substantial external support, the implementation of the PFM reform agenda has proceeded at an uneven pace. Moreover, previous experience suggests that the political commitment to the reform agenda may wane over time as expenditure pressures rise and alternative priorities compete for the government's limited attention and resources.

Ghana's recent achievement of lower-middle-income status marks a pivotal moment in its development history, as the country now faces diminishing inflows of external assistance combined with expanding access to non-concessional borrowing. In addition, while the emerging oil sector has greatly increased Ghana's medium-term growth trajectory and is expected to deliver a dramatic albeit temporary revenue boost, it also poses serious challenges to the country's fiscal stability and long-term economic competitiveness. These factors underscore the critical importance of achieving further progress on the structural reform agenda. Addressing macroeconomic vulnerabilities and expanding the fiscal space for capital investment will enable Ghana to realize its medium-term growth potential, and sustainable economic growth will allow the government to raise the quality of its public goods and services to the level of other middle-income countries in the region.

BACKGROUND

1.1 Ghana has enjoyed robust and sustained economic growth since the early 2000s. While Ghana's expansion occurred during a period of solid growth across much of Sub-Saharan Africa, the country has ranked among the region's top performers for over a decade. Ghana's GDP growth rate accelerated in 2000 and reached an average of 8.7 percent per year between 2008 and 2012 (Figure 1.1). Economic growth outpaced population growth, leading to a record 14.5 percent increase in real GDP per capita in 2011—the world's second highest growth rate for that year.

1.2 Following years of rapid economic expansion and the adoption of a refined accounting methodology, Ghana is now recognized as a lower-middle-income country. In 2010, the method for calculating Ghana's national accounts was updated, and the base year was changed from 1993 to 2006. This recalculation resulted in a 60 percent increase in estimated GDP due to the inclusion of economic activities that had been left out of previous estimates, and Ghana was reclassified from low-income to lower-middle-income country in 2011.

1.3 Positive terms-of-trade dynamics, including high gold and cocoa prices, coupled with new oil and gas discoveries, substantial capital inflows, and a reputation for relatively robust democratic institutions, underpinned Ghana's economic success. The GDP growth rate peaked at 14 percent in 2011, following the commencement of oil production. Increased foreign direct investment (FDI) in the nascent oil sector, supported by the easing of international liquidity constraints, greatly expanded the country's access to international capital and heightened its exposure to volatile global financial markets (Figure 1.2).

1.4 Rapid growth, combined with the ongoing structural transformation of the Ghanaian economy, greatly expanded employment opportunities. The service sector increased its share in GDP from 32 percent in 2000 to 50 percent in 2015, while agriculture's share fell from 39 percent to 20 percent. The advent of oil production in 2011 drove the rise of the industrial sector, which grew from just 19 percent of GDP in 2010 to 30 percent in 2015. Job creation accelerated as total labor productivity increased.[6] Employment grew by 3.2 percent per year between 1991 and 2005, then rose to 4 percent per year between 2005 and 2012 as the annual GDP growth rate reached 8 percent. As the focus of economic activity shifted from agriculture, the sector's share in total employment across most of southern and central Ghana fell from 75 percent in 1991 to less than 55 percent in 2013. As agricultural employment declined, non-agricultural self-employment and, to a lesser extent, formal wage employment increased. However, the agricultural sector remains a major source of livelihoods for the country's poorest households, especially in Ghana's remote northern regions.

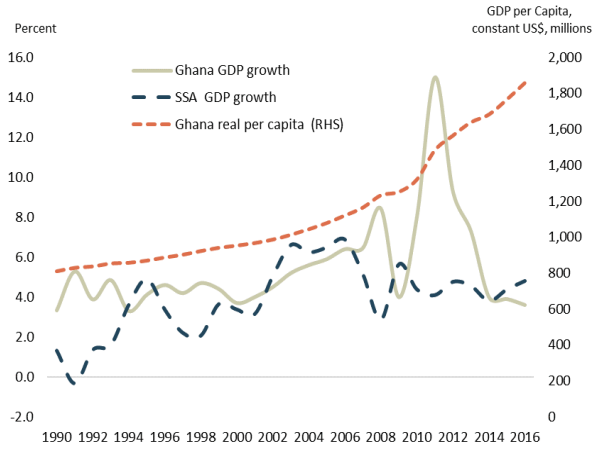
1.5 Robust growth and structural economic transformation drove progress in poverty reduction. The poverty rate fell from 71.8 percent in 1991 to 33.6 percent in 2012, while the extreme poverty rate dropped from 43.4 to 13.6 percent during the same time period.[7] The changing composition of the Ghanaian economy, gains in education and workforce skills, and labor mobility all supported income growth. Between 1991 and 2012, improvements in educational attainment cut the share of the labor force without a completed primary education from 41 to 24 percent. However, rapid economic growth also spurred an increase in inequality between 1991 and 2012. The

[6] World Bank, 2016a.

[7] These rates are based on the international poverty and extreme poverty lines of US$1.9 and US$1.2 in income per capita per day, respectively.

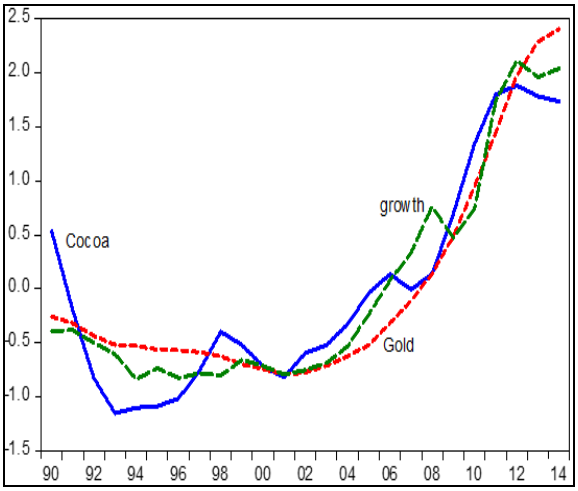
consumption gap between households in the top and bottom deciles of the income distribution widened substantially during the period, and the Gini index rose from 37.5 to 42.2 percent. Poverty remains most heavily concentrated in rural areas and in the country's northern regions.

FIGURE 1.1: LONG-RUN GROWTH TRENDS, GHANA AND SUB-SAHARAN AFRICA, 1990-2014



Source: Ghana Ministry of Finance (MoF); World Bank

FIGURE 1.2: GOLD AND COCOA PRICES, 5-YEAR MOVING AVERAGE, 1990-2014, NORMALIZED (%)



Source: MoF; World Bank

RECENT MACROECONOMIC TRENDS

1.6 Since 2012, a combination of slowing growth, large and persistent fiscal and current-account deficits, a rising debt burden, mounting inflationary pressures, and currency depreciation have posed an increasingly serious policy challenge. Protracted fiscal imbalances, a relatively loose monetary policy stance, and successive external shocks contributed to the deterioration of the macroeconomic environment. Meanwhile, the establishment of a SSSS for the public sector in 2010, coupled with a sharp rise in energy-subsidy costs and fiscal transfers, radically increased public spending. Over the next several years a series of exogenous factors contributed to what had by now become an emerging fiscal crisis. The rupturing of the West African Gas Pipeline in 2012 severed the gas supply from Nigeria and drove up energy costs, while falling prices for key commodity exports, especially gold, cocoa and oil, weakened the terms of trade. The fiscal deficit rose from 3.2 percent of GDP in 2011 to 11.6 percent in 2012, the current-account deficit widened from 9 to 11 percent of GDP, and government arrears rapidly accumulated.

1.7 The twin fiscal and current-account deficits remained in double digits through 2013 and 2014. The depreciation of the Ghanaian cedi and the adoption of an expansionary fiscal policy—partially financed by the central bank—intensified inflationary pressures. Between 2012 and 2014, the central bank covered 20 percent of the fiscal deficit, and the overall inflation rate increased from 8.8 to 17 percent, with nonfood inflation rising from 11.6 to 23.9 percent.

1.8 In response to the deteriorating fiscal situation the government adopted a multiyear deficit-reduction plan, but this effort met with only limited success. Implemented through the 2013 and 2014 budget laws, the plan targeted fiscal deficits of 5 and 8.5 percent of GDP (cash basis)

for 2013 and 2014, respectively. However, the fiscal deficit remained far above its target levels, reaching 10.7 percent of GDP in 2013 and 10.1 percent in 2014.

1.9 Though it failed to meet its deficit targets, the government implemented important measures to address its fiscal imbalances, including the elimination of fuel and utility subsidies. In 2013, as oil prices rose and the cedi depreciated, the government began passing a larger share of the rising cost of energy production on to consumers. This reduced the sensitivity of the fiscal accounts to commodity-price volatility, but consumer prices for fuel and electricity more than doubled.

1.10 Since 2015, the IMF, the World Bank, and Ghana's other development partners have increased their support for the government's fiscal consolidation efforts. The IMF and the Ghanaian authorities signed a US$918 million three-year Extended Credit Facility in April 2015, which is expected to continue until 2018. The arrangement focuses on adopting quantitative performance criteria for managing the primary fiscal balance, the wage bill, net international reserves, the central bank's net domestic-assets position, and changes in the stock of public arrears. The World Bank approved a new series of development policy loans in June 2015 designed to strengthen the country's fiscal institutions, promote more predictable budgetary outcomes, and enhance the productivity of public spending.

1.11 Ghana missed its 2016 fiscal target by a large margin. After successfully cutting the fiscal deficit from 10.1 percent of GDP in 2014 to 6.3 percent in 2015, the fiscal deficit in 2016 on a cash basis increased to an estimated 8.7 percent of GDP compared with the target of 5.3 percent. The budget numbers indicate that the fiscal slippage was due to overspending in the face of weak revenues. Rising expenditure pressures in the run-up to the December 2016 elections caused the government to accumulate large amount of new arrears in the order of 3 percent of GDP. The fiscal slippage in 2016 was much higher compared to the previous election cycles. The fiscal deficit widened by an average by 1.5 percentage points of GDP during each of the five elections between 1992 and 2008.[8]

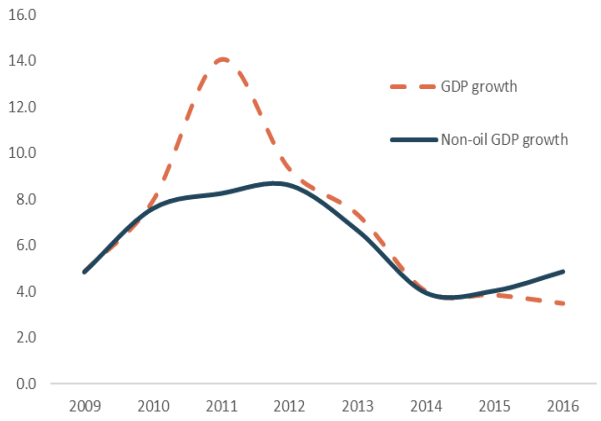
1.12 The external balances have improved since 2015 despite unfavorable global economic conditions. Ghana relies heavily on the oil, gold, and cocoa subsectors, which together account for more than 75 percent of percent of its exports. However, international commodity prices have been highly volatile since 2012. Oil and gold prices fell by 47 and 8 percent, respectively, in 2015 and remained low for most of 2016. Nevertheless, Ghana's current-account deficit narrowed from 9.6 percent of GDP in 2014 to 7.6 percent in 2015 and continued to improve to 6.6 percent in 2016. In 2016, the merchandise trade deficit narrowed on the back of improved gold exports and declining imports. Ghana's oil exports were significantly lower in 2016 because of the unexpected production problems and weak oil prices, while oil import volumes have been trending down since 2014, as domestic gas production has increased. However, the current-account deficit was mostly financed by robust FDI inflows, while portfolio investment and short-term capital have proven far less stable.

1.13 A challenging macroeconomic environment slowed the GDP growth rate from 14 percent in 2011 to an estimated 3.5 percent in 2016. Drought conditions reduced hydropower output, while years of underinvestment and inadequate infrastructure maintenance further

[8] See: World Bank (2011).

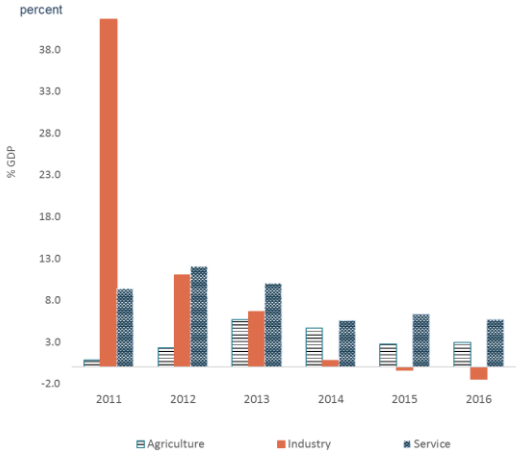
constrained domestic energy production. Since 2012, a combination of energy rationing, low commodity prices, high inflation, and expenditure-side fiscal consolidation have inhibited economic activity (Figure 1.3). Energy rationing and low commodity prices were especially damaging to the industrial sector (Figure 1.4). Unexpected technical difficulties in the oil subsector and low global oil prices further slowed economic growth in 2016. The GDP growth rate is expected to recover in 2017 when the TEN oilfield reaches full capacity. The opening of the Sankofa field in 2018 is expected to augment oil and gas production, and the gas component of the Sankofa project is expected to bolster the domestic energy supply and support growth in the nonoil economy.

FIGURE 1.3: THE GDP GROWTH RATE AND GROWTH IN THE NO-NOIL ECONOMY, 2010-15



Source: MoF; World Bank

FIGURE 1.4: GDP GROWTH BY ECONOMIC SECTOR, 2011-16



Source: MoF; World Bank

1.14 Important stabilization challenges and risks remain. The large fiscal slippage and recent discovery of large arrears have undermined the credibility of Ghana's fiscal policy and budget execution. Hence, full commitment to fiscal discipline and transparency is needed to achieve macroeconomic stability, debt management, and market credibility. Moreover, a high inflation rate, slowing economic activity, a rising debt burden, and elevated financing costs continue to pose serious challenges. In 2015, the central bank raised its policy rate by 500 basis points to 26 percent, yet the inflation rate remained above 16 percent until late 2016. When the inflation rate dropped to 13.2 percent in February 2017, the central bank responded by reducing the policy rate by a cumulative 200 basis points to 23.5 percent. Despite its recent decline, the inflation rate is still far above the central bank's target of 8±2 percent. Domestic financing costs—currently about 20 percent—are also expected to remain high. Meanwhile, global financial market volatility is limiting access to external financing. Yet even in this high-cost environment, Ghana has continued to accumulate public debt to finance its fiscal deficit. In 2016, the total debt stock rose to US$29.2 billion, or 72.5 percent of GDP, and the external debt stock reached 40.1 percent of GDP.

FISCAL POLICY AND PUBLIC FINANCIAL MANAGEMENT

1.15 Ghana's recent macroeconomic challenges largely stem from a rapid and sustained increase in public spending. Total public expenditures grew from 23 percent of GDP in 2010 to an estimated 28.5 percent in 2014, while total revenues (including grants) remained broadly

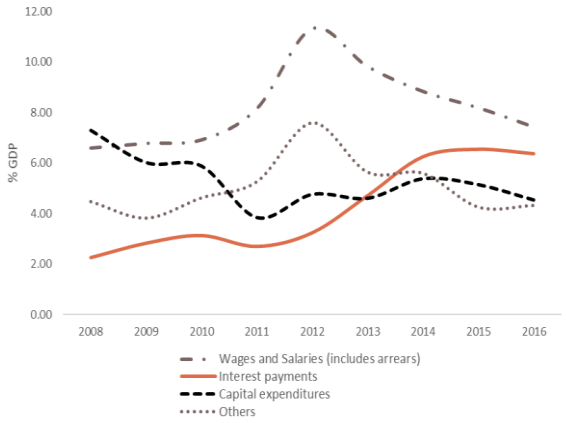
unchanged at 18-19 percent of GDP. This caused Ghana's fiscal deficit to increase from 3.2 percent in 2010 to 10.6 percent in 2012, and it remained in double digits until 2015 (Figure 1.5).

1.16 Personnel costs have driven the rapid increase in public spending observed in recent years. The public sector wage bill, which includes all forms of remuneration for civil servants, increased from 6.9 percent of GDP in 2010 to 8.9 percent in 2012, and this figure rises to 12 percent when deferred wage payments are included. Since it surpassed capital spending in 2009, the wage bill has been the largest component of Ghana's budget (Figure 1.6).

FIGURE 1.5: FISCAL REVENUES AND EXPENDITURES, 2008-2016

Source: IMF; World Bank

FIGURE 1.6: THE COMPOSITION OF PUBLIC SPENDING, 2008-2016



Source: IMF; World Bank

1.17 The 2010 SSSS reform was designed to facilitate salary negotiations and tighten wage-bill management, but the standardization of the public sector pay scale resulted in a large increase in compensation, and the introduction of the SSSS was accompanied by a significant expansion in the number of public employees. The combination of higher salaries and a growing public sector workforce pushed the wage bill close to two-thirds of tax revenue in 2013 (Table 1.1). In an attempt to contain rising personnel costs, the government implemented a hiring freeze across most government agencies, and the wage bill (including deferred payments) slid from 8.8 percent of GDP in 2014 to an estimated 7.5 percent in 2016. Despite the government's efforts to strengthen payroll administration, deficiencies in the compensation structure and lingering efficiency issues continue to exert upward pressure on the wage bill. Chapter 3 explores these challenges in greater detail.

1.18 A spike in energy subsidies in 2012-13 compounded the expenditure pressures generated by rising personnel costs. The government initially absorbed some of the increase in electricity costs resulting from the rupture of the West African Gas Pipeline in 2012, and subsidy spending rose to 1.1 percent of GDP in 2012 and 1.2 percent in 2013. As oil prices declined in 2014, subsidy spending fell to 0.6 percent of GDP. In 2015, the government committed to permanently reducing subsidy spending as part of the stabilization program.

1.19 Large fiscal deficits fueled a rapid increase in the debt burden, and interest payments are now Ghana's second-largest expenditure category. Interest payments on Ghana's public

debt rose from 3.3 percent of GDP in 2012 to an estimated 6.4 percent in 2016 (Figure 1.7). As the debt stock has grown, domestic financing has become extremely costly. In a context of persistently high inflation rates and tight monetary conditions, domestic interest rates ranged from 22 to 25 percent between 2013 and late 2016, respectively. Nevertheless, the government increased its short-term borrowing, which along with the rollover of short-term debt at higher interest rates, boosted the share of short-term debt from 31 percent of total domestic debt in 2012 to 46.3 percent in 2015. Although the share was reduced to 37.7 percent in 2016, the level still presents considerable rollover and liquidity risks. Ghana's interest payments remain high by the standards of countries with similar levels of indebtedness, underscoring the challenges associated with the size and composition of the debt stock (Figure 1.8).

TABLE 1.1: CENTRAL GOVERNMENT ACCOUNTS, CASH BASIS, 2008-2016 (% OF GDP)

	2008	2009	2010	2011	2012	2013	2014	2015	2016p
Total Revenues	15.9	16.4	16.7	19.1	18.5	16.7	18.4	19.3	17.1
Domestic Revenue	13.2	13.4	14.4	17.1	17.0	16.3	17.7	17.4	16.4
Taxes	12.8	12.2	13.2	15.3	15.6	14.4	15.8	15.5	15.3
Other revenue	0.4	1.3	1.2	1.8	1.4	1.9	1.9	1.9	1.1
Grants	2.7	3.0	2.3	2.0	1.5	0.5	0.7	1.9	0.7
Total Expenditures	22.5	22.2	23.3	23.0	29.4	27.0	28.5	26.2	25.8
Personnel Spending	7.8	7.9	7.9	9.4	12.0	11.0	9.7	9.3	8.6
Wages & Salaries	6.6	6.8	6.9	7.6	8.9	8.9	8.3	7.6	7.2
Deferred wages	0.0	0.0	0.0	0.6	2.5	0.9	0.5	0.6	0.3
Social contributions	1.2	1.1	1.0	1.3	0.7	1.2	0.9	1.1	1.2
Goods and Services	2.1	1.7	2.1	1.2	1.8	1.0	1.6	1.0	1.9
Interest Payments	2.3	2.8	3.1	2.7	3.2	4.7	6.2	6.5	6.4
Domestic	1.6	2.1	2.4	2.2	2.5	4.1	5.4	5.3	5.0
Foreign	0.7	0.7	0.7	0.5	0.7	0.7	0.9	1.3	1.4
Subsidies	0.9	0.1	0.3	0.0	1.1	1.2	0.4	0.0	0.0
Intragovernmental Transfers	2.2	1.5	2.1	2.2	2.6	2.3	2.1	3.1	3.2
Other Expenditures	1.4	2.2	2.2	3.1	3.9	2.1	3.1	1.2	1.1
Capital Investment	7.3	6.0	5.9	3.8	4.8	4.6	5.4	5.1	4.5
Domestic	4.2	1.6	1.5	0.9	1.4	1.8	1.1	0.9	1.2
Foreign	3.0	4.4	4.4	2.9	3.4	2.8	4.3	4.3	3.3
Overall Balance (Cash Basis, Including Discrepancy)	-6.6	-5.7	-6.6	-3.9	-10.9	-10.3	-10.1	-6.3	-7.8

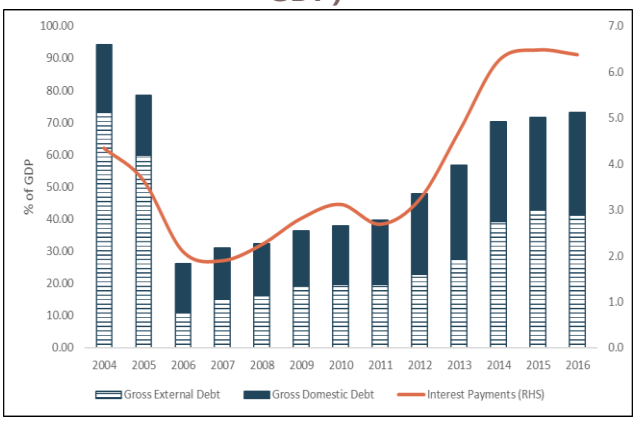
Source: IMF; MoF; World Bank

1.20 Ghana's rising external debt burden further complicates debt management. Ghana has issued one Eurobond every year since 2013. More than half of its public debt stock is external and serviced in foreign currencies, leaving the debt profile highly exposed to exchange-rate risks.[9] Ghana's recent experience highlights how costly this exposure can be: foreign-currency-denominated interest payments rose from 0.7 percent of GDP in 2012 to 1.4 percent in 2015,

[9] World Bank, 2016b.

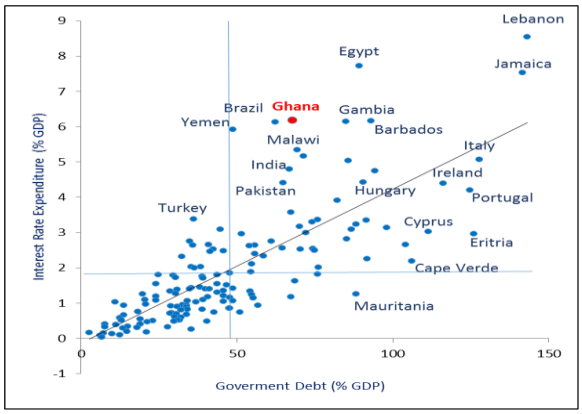
reflecting both the rising external debt burden and the depreciation of the cedi in 2014 (45 percent) and 2015 (18 percent).

FIGURE 1.7:THE PUBLIC DEBT STOCK AND DEBT-SERVICE PAYMENTS, 2004-2016 (% OF GDP)



Source: MoF; World Bank

FIGURE 1.8: THE PUBLIC DEBT STOCK AND DEBT-SERVICE PAYMENTS, 2015 (% OF GDP)



Source: World Bank

1.21 Ghana's most recent debt sustainability analysis indicated that the country is at high risk of external debt distress and highlighted important vulnerabilities related to the domestic debt stock.[10] The present value of the debt-to-GDP ratio is projected to breach its indicative threshold by small margins under the baseline scenario, while the debt-service-to-revenue ratio is projected to remain above its indicative threshold over the entire projection period, spiking repeatedly as Eurobonds mature. The analysis also underscores the sensitivity of the external debt profile to exchange-rate and export shocks.

1.22 Achieving a primary surplus would help to limit the accumulation of new debt, and improving macroeconomic conditions are expected to reduce financing costs. Achieving a primary surplus in 2017 and maintaining it through 2018 will be vital to ensuring debt sustainability. Meeting this objective will require the government to strictly adhere to its expenditure targets. The ongoing fiscal consolidation should help reduce external financing costs and reinforce macroeconomic stability, and the authorities are striving to improve Ghana's credit rating and fiscal indicators.[11] Following a positive IMF review in May 2016, Ghana's international sovereign-bond spread narrowed by more than 350 basis points, even after the authorities failed to sustain the fiscal consolidation and momentum of the reform program through the December elections. However, revenue-side measures will also be necessary to ensure debt sustainability over the medium and long term, and Ghana has considerable scope to increase domestic revenue mobilization.

[10] World Bank-IMF, 2016.

[11] Baldacci, Gupta and Mati (2011) also find that political risk variables are key to financial markets' perception of country risk. In addition, higher public investment rates are associated with lower spreads if a given country's fiscal position remains sustainable and its fiscal deficit does not worsen. Sovereign spreads are determined by a wide range of factors, such as global risk aversion, macroeconomic fundamentals, credit ratings, financial volatility indicators, political developments, terns-of-trade shocks, political developments, and institutional factors. See: Hilscher and Nosbusch (2015), IMF (2010), Faria *et al.* (2006), and Ferrucci (2003).

1.23 Proactive debt management will be necessary to reduce portfolio risks and prevent future debt-service obligations from crowding out other forms of public spending. Ghana's stabilization program is designed to lengthen the average maturity of the debt stock, smooth the repayment schedule, and build resilience to both monetary and exchange-rate shocks. A credible medium-term debt strategy and annual borrowing plan will be vital to ensure that the public debt portfolio does not become a source of macroeconomic vulnerability once the stabilization program ends. The fiscal assumptions that underpin the borrowing plan should be monitored closely, and the plan should be regularly reviewed and revised as necessary to reflect new developments. A debt-sustainability analysis should be conducted to evaluate market risks and design corresponding adjustments to the financing strategy and/or the primary-deficit target. Improving cash management and maintaining adequate fiscal buffers will allow the authorities to avoid taking on new debt at excessively high costs. The government should continue its efforts to deepen the domestic debt market and extend the maturity of the domestic debt stock. Frequent consultations with lenders and the provision of timely fiscal and financial information would facilitate improved debt management.

1.24 All on-lending facilities—especially those related to metropolitan, municipal, and district assemblies (MMDAs) and SOEs—should be closely monitored in order to obviate shocks to debt sustainability. Currently, the debt monitoring is limited to central government and only publicly guaranteed debt, and there is a pressing need to develop national procedural guidelines for concessional and non-concessional borrowing by MMDAs and SOEs. These guidelines must respect the limits of the annual borrowing plan, clearly define the conditions for issuing debt guarantees, and specify regulatory requirements for on-lending to MMDAs and SOEs, including assessments of their credit risk and borrowing capacity. Proposed legislation would enable borrowing by local governments to finance large infrastructure projects, which could pose a risk to the central government budget if subnational borrowers lack the financial capacity to meet their new debt obligations.[12] All debt accumulated by MMDAs and SOEs should be closely monitored due to its potentially negative economic impacts, especially on domestic banks. This includes debt that is not publicly guaranteed.

1.25 The government has already taken important steps to mitigate the risks posed by the rising debt stock. The government's 2016-18 medium-term debt strategy targets a reduction in debt-service costs and refinancing risks. Starting in 2017, the authorities will strive to enhance the quality of annual budget planning, treasury management and forecasting, debt reporting and transparency, and operational risk management with support from the World Bank.[13] To hedge against foreign-exchange exposure, the government has used a share of its oil revenue to create a dollar-denominated fund for debt repayment, and "bullet" bond repayments have been replaced with a longer-term amortization structure.[14] The authorities have also established escrow and debt-service accounts for all on-lending facilities, especially those related to SOEs.

1.26 Since 2011, Ghana's public investment budget has steadily declined as a share of GDP. In 2012-13, the rising wage bill and other recurrent expenditures crowded out new capital investment, and since 2014 the ongoing fiscal consolidation has continued to constrain the

[12] This legislation is currently being discussed by Ghana's Parliament.

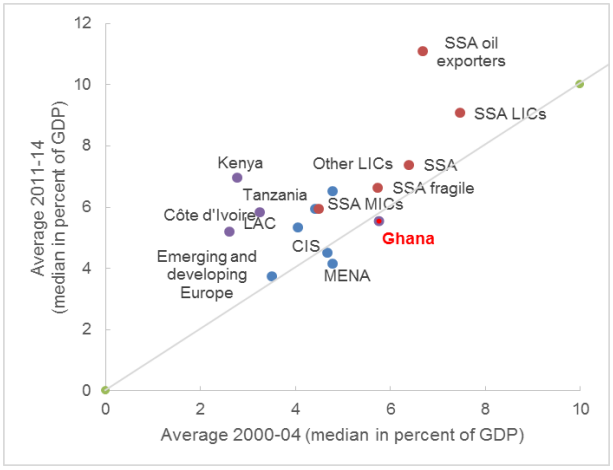
[13] In August 2016, the World Bank's Board of Directors approved a US$15 million Ghana Economic Management Strengthening Technical Assistance Project designed to support Ghana's institutional capacity for domestic revenue mobilization, public investment management, debt management, and SOE governance.

[14] The government established a sinking-fund account in May 2015, as deposits into the Ghana Stabilization Fund exceeded the current cap of US$250 million.

investment budget. In the past when the government has faced a budget shortfall or macroeconomic shock, capital spending has often borne the brunt of the adjustment. Total capital expenditures fell from 6-7 percent of GDP between 2008 and 2010 to 4-5 percent between 2011 and 2016. Consequently, Ghana's capital-spending dynamics compare unfavorably with those of both its regional comparators and other developing countries worldwide (Figure 1.9).

1.27 Ghana's low public investment levels have negative implications for growth, job creation, and public service delivery. Ghana's long-term growth outlook is positive, and investment is expected to make the single most important contribution to growth over the medium term.[15] Boosting public investment, particularly in strategic sectors, and enhancing its overall quality could accelerate growth and support sustainable poverty reduction.

FIGURE 1.9: CAPITAL INVESTMENT AMONG DEVELOPING COUNTRIES, 2000-2014 (% OF GDP)



Source: IMF

1.28 While Ghana's narrow fiscal envelope will not allow for a drastic increase in capital spending in the short term, strengthening public investment management could accelerate progress on the government's development objectives. The international experience shows that public investment in the most efficient countries generates up to twice as much value-for-money as public investment in the least efficient countries.[16] Ghana's public investment management capacity is weak, and reforms are needed at all stages of the project cycle: planning, budgeting, appraisal, project selection, financing, procurement, execution, and monitoring and evaluation.[17] Moreover, the fragmentation of public investment across multiple government agencies inhibits strategic planning and comprehensive monitoring by the Ministry of Finance (MoF). Public investment in priority sectors such as health and education is managed through special statutory funds, and detailed investment plans are not included in the national budget. While SOEs execute a substantial share of public investment, their budget documentation is often incomplete, financial reporting and oversight are limited, and their investment portfolios are not integrated into a full public investment report.

1.29 The government adopted a new public investment management policy in June 2015 with support from the World Bank.[18] Its principal objectives are to establish well-defined and transparent guidelines for project preparation and selection designed to ensure that only viable projects with significant economic benefits receive funding, and to institute appropriate procedures

[15] Herrera and Aykut, 2015.
[16] IMF, 2015a.
[17] World Bank, 2012; DFID, 2014; IMF, 2016a.
[18] The establishment of the public investment management policy was a prior action under the World Bank's Macroeconomic Stability for Competitiveness Development Policy Financing operation approved in June 2015.

for tracking project execution and conducing impact assessments. The government is expected to begin implementing the policy in 2017 with World Bank technical assistance.[19]

1.30 Streamlining recurrent spending could expand the fiscal space for public investment over the medium term, while public-private partnerships (PPPs) could better leverage the government's limited resources. Increasing the quantity of Ghana's public goods and enhancing the quality of its public services to the level of other lower-middle-income countries will require an additional US$1.5 billion per year in public investment. Further measures to contain the growth of the wage bill and other major recurrent expenditures could create new fiscal space for investment, and forming partnerships with private investors could augment the government's limited fiscal envelope. Engaging private investors in the sector will require a significant reduction in country risk and improvements in the project selection process. Private investors will only involve themselves in high-quality, financially viable infrastructure projects that are carefully selected and prepared.[20]

PUBLIC EXPENDITURES BY SECTOR

1.31 Weaknesses in expenditure recording limit analysis of public spending in Ghana. The country's legal framework only mandates the preparation of financial reports for the consolidated budget, and the overall allocation of central government funds is not recorded in any single format. Administrative agencies receive funding not only through the budget, but also through earmarked funds and internally generated funds (IGF). Ghana currently has seven earmarked funds, which together account for about 15 percent of total central government revenue.[21] Budgets and outturns for these funds are not available during the preparation and approval of the national budget, and Parliament approves their budgets according to a separate calendar established in their founding legislation. The Controller and Accountant-General's Department (CAGD) does not capture all data on IGF, external development financing, or even statutory funds, which together comprise a large share of the national budget.

TABLE 1.2: PUBLIC SPENDING BY SECTOR, 2011-16 (% OF GDP)

	2011	2012	2013	2014	2015	2016p
Public Administration	**1.85**	**9.32**	**8.59**	**24.81**	**10.01**	**8.75**
Economic Spending	**1.18**	**2.61**	**1.85**	**0.95**	**0.47**	**0.41**
Ministry of Food and Agriculture	0.16	0.25	0.17	0.11	0.09	0.09
Ministry of Energy	0.65	1.65	1.32	0.51	0.10	0.10
Infrastructure Spending	**1.65**	**1.07**	**1.28**	**0.58**	**0.57**	**0.60**
Public Security Spending	**2.03**	**2.23**	**2.45**	**1.79**	**1.66**	**1.51**
Social Spending	**6.09**	**9.01**	**6.95**	**6.17**	**6.53**	**4.61**
Ministry of Education	4.44	6.18	4.81	4.63	4.10	3.35
Ministry of Health	1.29	1.29	1.29	1.29	1.59	1.16
Other Spending	**0.12**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

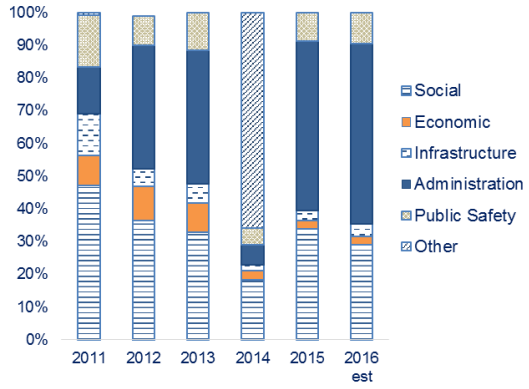
[19] World Bank-IMF, 2016.
[20] Fay, Toman, Benitez and Csordas, 2010; World Bank, 2014.
[21] These include the District Assemblies Common Fund, the Ghana Education Trust Fund, the National Health Insurance Fund, the Road Fund, the Petroleum Funds, and oil revenue earmarked for the Ghana National Petroleum Corporation.

TOTAL	**12.91**	**24.24**	**21.12**	**34.30**	**19.26**	**15.87**

Source: CAGD; MoF
Note: These data are based on government classifications. The 2016 figures are estimates as of November.

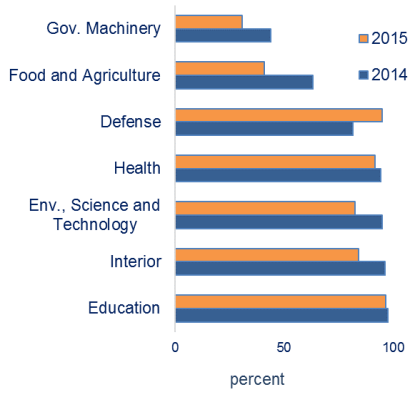
1.32 In recent years, the government has shifted the focus of public spending away from the social and economic sectors to administrative spending. Despite their limitations, the CAGD data indicate that social and economic spending has fallen significantly as a share of GDP (Table 1.2). The social sectors, including education and health, accounted for the largest share of public spending in 2011 (Figure 1.10). However, since 2014, the 'administration' category, which include spending on debt management, exchange-rate deprecation, and other government obligations, has accounted for more than two-thirds of total spending. These two items not only crowded out spending on education and health but also infrastructure, agricultural development, and public utilities.

FIGURE 1.10: PUBLIC SPENDING BY CATEGORY, 2011-16 (%)



Source: CAGD
Note: 2016 data are preliminary.

FIGURE 1.11: SHARE OF THE WAGE BILL BY CATEGORY, 2014-15 (%)



Source: CAGD

1.33 Spending on the health and education sectors has declined both as a share of the budget and as a share of GDP. The wage bill represents a large share of spending across all sectors, further narrowing the scope for investment (Figure 1.11), and the dominance of the wage bill has negative implications for expenditure effectiveness.

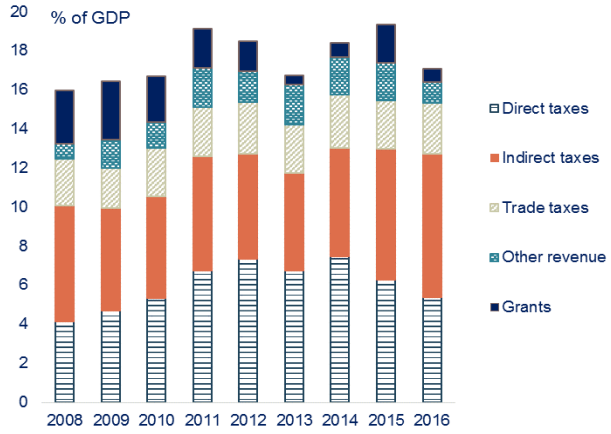
REVENUE MANAGEMENT

1.34 In contrast to the rapid growth of expenditures, public revenues have remained essentially unchanged as a share of GDP over the last four years. Total revenue (including grants) grew substantially in 2011 following the start of oil production, then dipped in 2013 due to shortfalls in tax collection and grant disbursements (Figure 1.12). Grants rose in 2015, as Ghana's development partners provided support to the government's stabilization program. But the disbursement of grants was lower in 2016 as the December elections slowed down the implementation of the several reforms supported by Ghana's development partners. Indirect tax

revenue has exceeded direct tax revenue since 2015 as indirect taxes is projected to represent the bulk of tax revenue over the near term. [22]

1.35 Tax revenue in Ghana is low by regional standards and below its estimated potential. Even at a peak of 15.8 percent of GDP in 2014, Ghana's total tax revenue remained far below the levels of regional comparators, such as South Africa, Mozambique, Malawi, and Senegal (Figure 1.13). Moreover, actual tax-revenue collection is far short of what Ghana's level of economic and institutional development would predict, and the country's unexploited tax potential was estimated at about 5 percent of GDP in 2014.[23] Over time, Ghana's potential tax revenue is expected to rise in line with its rate of GDP growth. In a typical Sub-Saharan African (SSA) country, a 2 percent annual GDP growth rate sustained over 10 years would boost potential tax revenue by an estimated 6-7.5 percentage points of GDP.[24]

FIGURE 1.12: PUBLIC REVENUE BY CATEGORY, 2008-2016 (% OF GDP)



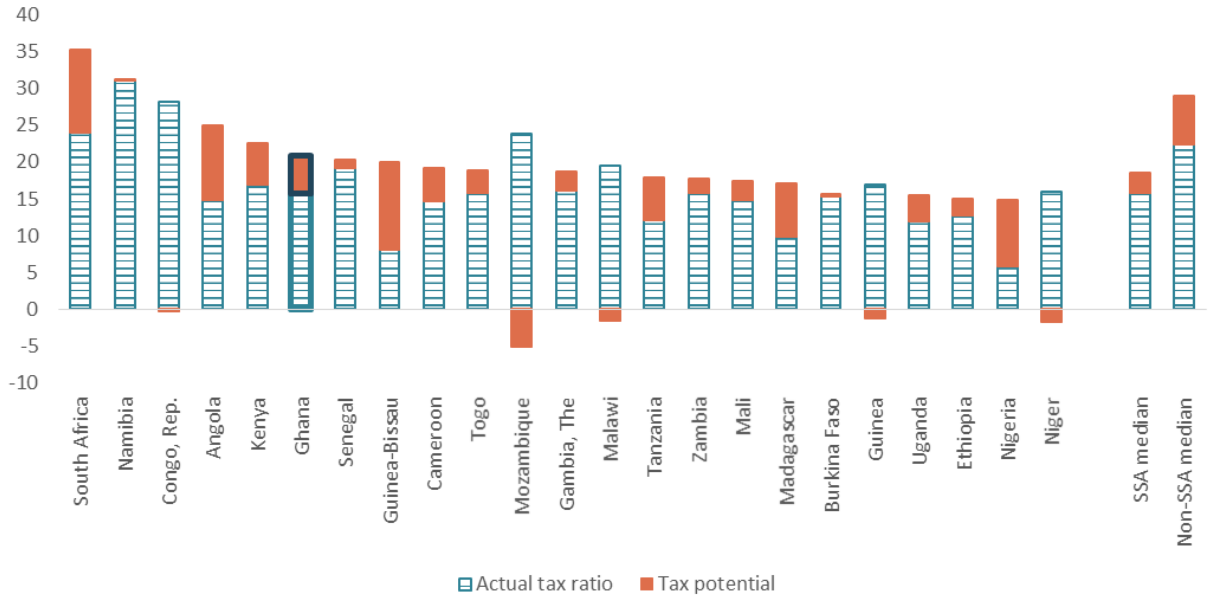
Source: IMF; MoF

[22] These tax increases included the introduction of a special petroleum tax of 17.5 percent as a part of an effort to rationalize the VAT regime, and a change in the petroleum pricing structure. The special levy of 1-2 percent on certain imports was extended through 2017, as was the 5 percent profit tax on banks, insurance companies, other financial service providers, communications firms, and breweries. The VAT was also extended to fee-based financial services. The withholding tax on directors' fees was increased from 10 to 20 percent, and the withholding tax on goods and services rose from 5 to 7.5 percent. The tax on vehicle income was increased by 50 percent. A 5 percent flat tax on real estate was approved by Parliament in 2014 but was not implemented due to challenges that have now largely been addressed.

[23] IMF, 2015b.

[24] IMF, 2015b.

FIGURE 1.13: ACTUAL AND POTENTIAL TAX REVENUE, GHANA AND COMPARATORS, 2014 (% OF GDP)



Source: IMF Regional Economic Outlook: Sub-Saharan Africa October 2015.

1.36 Narrowing the gap between actual and potential tax revenue will be crucial to contain borrowing costs and manage the growth of the debt stock. A thorough review of the tax regime would provide a sound analytical foundation for policies designed to broaden the tax base and enhance tax compliance.[25] Making proper use of withholding systems and third-party databases would enable the tax administration to better target potential taxpayers, and establishing mechanisms to identify revenue leakages at ports and other tax-collection points would bolster tax compliance. These measures should be supported by stronger ex-post controls, including audit, enforcement, and appeals mechanisms.

1.37 There is still considerable scope to streamline tax incentives. Ghana's tax-expenditure regime, which includes a wide range of tax exemptions and various forms of preferential tax treatment, cost the government an estimated 5.2 percent of GDP in foregone revenue in 2013 alone. While many countries use tax expenditures to support the growth of specific sectors or advance fiscal-equity objectives, these policies complicate revenue collection and may give rise to perverse incentives. Chapter 2 provides a detailed look at the complex fiscal and economic implications of tax expenditures in Ghana.

1.38 The government is striving to align domestic tax rules with international best practices, and an important set of income tax reforms took effect in 2016. The reforms expanded the definition of taxable income to include all returns on foreign investments, whether or not they are repatriated to Ghana. The new Income Tax Act introduced several measures to simplify the existing tax regime, expand tax collection, and reduce the cost of tax compliance. It abolished the capital gains tax, and revenue from the sale of assets will now be classified as business or investment income and taxed at the applicable rate. The legislation also introduced a new tax regime

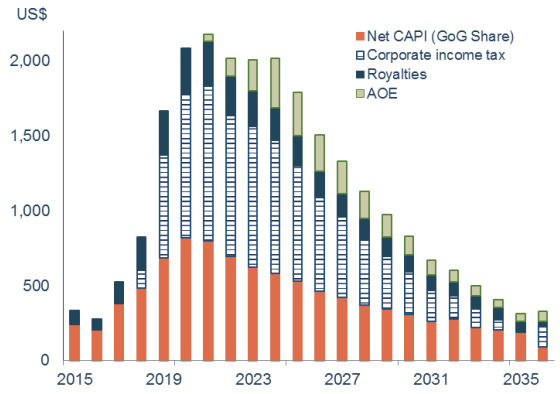
[25] IMF, 2011.

for small taxpayers. The threshold for VAT registration was increased to GH¢ 200,000, and a modified tax regime was established for taxpayers below this threshold, who will now be subject to a 6 percent turnover-tax.

1.39 The government is currently developing a business-intelligence system to strengthen tax compliance and broaden the tax base. The new system, which will be implemented with support from the World Bank, will enable the tax authorities to compile detailed analytical reports based on multiple data sources.[26] This information will strengthen key tax-administration processes, especially auditing and enforcement, improve risk-management mechanisms, and establish a foundation for more effective tax policies. It will also enable tax officials to identify potential taxpayers in the informal sector, thereby facilitating efforts to promote formalization and expand the tax base.

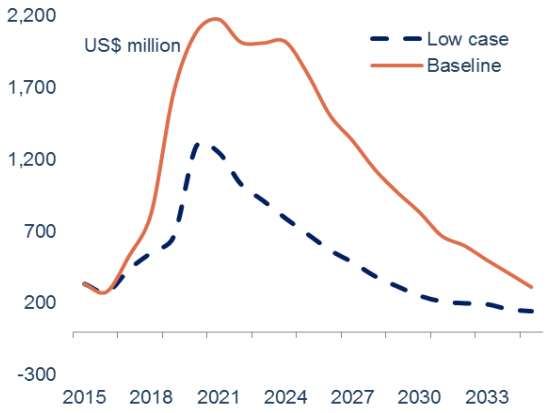
1.40 A projected increase in oil output will boost domestic revenue over the medium term, but this effect will likely be short-lived. Ghana generates its oil revenue through a combination of royalties, the national oil company's carried and participating interest, additional oil entitlements, and corporate income taxes. Based on a bottom-up production model and current oil-price forecasts,[27] Ghana's oil reserves are expected to generate a total of US$26 billion in public revenue, of which US$3.2 billion was already realized between 2009 and 2015. Oil revenue is expected to peak in 2023 and decline thereafter (Figure 1.14). However, these projections are highly sensitive to international oil prices, and if prices were to remain at their low 2016 levels for the next two decades, Ghana's total public oil revenue would drop from US$23 billion to US$10 billion (Figure 1.15).

FIGURE 1.14: PROJECTED DECOMPOSITION OF OIL REVENUES, 2015-2035 (US$ MILLIONS)



Note: The baseline scenario reflects World Bank oil-price projections (September 2016).
Source: World Bank Ghana Economic Update (2016).

FIGURE 1.15: OIL-REVENUE PROJECTIONS, BASELINE AND LOWER-BOUND SCENARIOS, 2012-2033 (US$ MILLIONS)



Note: The baseline scenario reflects World Bank oil-price projections (September 2016); the lower-bound scenario assumes oil prices will remain at their 2016 levels.

[26] World Bank-IMF, 2016.
[27] World Bank, 2016c.

Source: World Bank Ghana Economic Update (2016).

1.41 Managing the anticipated surge in oil revenues will be challenging due to volatile prices and production volumes as well as the terminal decline in oil output that is projected to begin in 2025. Ghana's 2011 Petroleum Revenue Management Act defines the methodology for forecasting oil revenues based on moving averages of historical and expected values for both prices and production volumes. The resulting forecasts form the basis for budget planning. However, these forecasts are frequently inaccurate, often by wide margins.[28] Ideally, oil-revenue projections should err on the side of underestimation, as overestimating future revenues can disrupt investment execution and undermine debt sustainability.

1.42 As oil revenues are expected to decline after 2025 and eventually cease altogether, the government must incorporate the transient nature of the revenue surge into its medium-term budget strategy. By law, a minimum of 70 percent of budgetary oil revenue must finance public investment in priority sectors, including infrastructure development, institutional capacity-building, and environmental protection. The projected rise in budgetary oil revenues over the next decade underscores the importance of enhancing expenditure efficiency, particularly in terms of the capital budget. Sustaining economic growth as oil output declines will require increased competitiveness and progressive diversification in the non-resource sectors.[29]

BUDGET MANAGEMENT AND EXECUTION

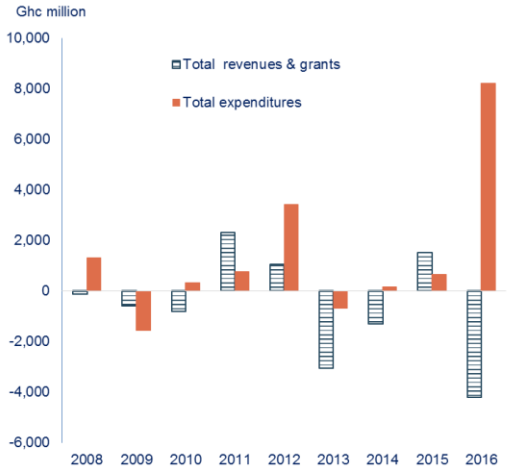
1.43 Inaccurate revenue forecasts, weak fiscal discipline, and ineffective expenditure controls have eroded budgetary credibility, resulting in large in-year budget deviations and the accumulation of arrears. Budget planning and execution are weakly linked, expenditure projections are imprecise, and the budget itself is based on an outdated economic classification. Both fiscal and financial reports are frequently late and include data at the aggregate level only.

1.44 The MoF and the CAGD share responsibility for developing and executing the budget. The MoF formulates the draft budget in collaboration with the line ministries and other government agencies. Once the budget has been approved, the MoF issues general warrants to the CAGD, allocating personnel funding on an annual basis and procurement funding on a monthly basis. The CAGD then sets parameters for transferring personnel and procurement funding to line ministries and public agencies. The MoF's Expenditure Monitoring Unit is responsible for overseeing all ministry and agency budgets.

1.45 Large disparities between allocated resources and actual spending weaken budgetary credibility. Both revenue and expenditure projections have been highly inaccurate in recent years due to overoptimistic revenue projections, inadequate commitment controls, and limited monitoring and enforcement of budgetary compliance (Figure 1.16). Actual personnel costs have systematically exceeded budget allocations between 2012 and 2014, with a steep drop in investment and large intergovernmental fiscal transfers covering the difference (Figure 1.17).

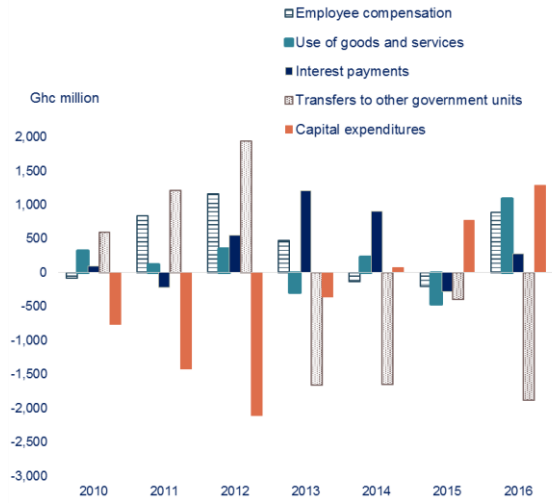
[28] Aykut, Pradelli and Stanley, 2015.
[29] World Bank-IMF, 2016.

FIGURE 1.16: REVENUES AND EXPENDITURES, ACTUAL V. BUDGETED, 2008-2016



Source: Ghana Ministry of Finance

FIGURE 1.17: EXPENDITURES BY CATEGORY, ACTUAL V. BUDGETED, 2011-2016



Source: Ghana Ministry of Finance

1.46 The use of multiple statutory funds increases budgetary rigidity and limits the scope for discretionary spending. In principle, the MoF is obliged to transfer a predetermined share of certain tax revenues into the accounts of statutory funds each year, but in practice repeated delays have led to the accumulation of arrears in the earmarked accounts. Together, five of the seven major statutory funds[30] represent about 15 percent of all central government revenue, and specific rules in their governing legislation define how these resources are to be spent. Statutory funds, combined with other formally or effectively nondiscretionary expenditures such as interest payments and the wage bill, have accounted for more two-thirds of public spending in recent years.

1.47 Budgetary rigidity limits the government's ability to respond to domestic and external shocks. As macroeconomic conditions deteriorated between 2012 and 2014, government arrears rapidly mounted, reaching GH¢ 6.2 billion (5.5 percent of GDP) by end-2014. Arrears are claims on future budgets, which disrupt financial planning, inhibit budget execution, undermine budgetary credibility, and exacerbate policy uncertainty. Under the stabilization program, the government has been clearing its stock of arrears, which fell to GH¢ 4.3 billion (3.1 percent of GDP) by end-2015. Nevertheless, in addition to large fiscal slippage in 2016, new arrears of GH¢5.1 billion (3 percent of GDP) were accumulated during 2016, pushing the stock of domestic arrears to an estimated GH¢ 7 billion (4 percent of GDP).

1.48 In addition to budgetary rigidity, the accumulation of arrears also reflects weaknesses in budget execution and oversight. Inadequate liquidity, poor treasury management, limited financial reporting, and structural inefficiencies in the management of statutory funds have all contributed to the rise in arrears. The unpredictability of the budget disrupts expenditure execution and delays payments to contractors and suppliers, with negative consequences for program implementation and public service delivery. While the establishment of a single treasury

[30] Excluding funds that accrue to the Ghana National Petroleum Corporation and the Ghana Infrastructure Investment Fund.

account has improved cash management, the account's coverage is not yet comprehensive. Moreover, Ghana's cash-flow forecasting methods and cash-investment procedures continue to fall far short of international best practices.

1.49 In an effort to strengthen PFM, the authorities implemented the GIFMIS in 2013. The transition to the GIFMIS required an updated chart of accounts and additional personnel training in all public agencies. The GIFMIS was designed to address previously identified weaknesses involving cash management, commitment controls, and budgetary credibility and coverage. While adopting the GIFMIS was a positive step, the system has yet to achieve its full potential.

1.50 Multiple budgetary funds are still not included in the GIFMIS. There are inconsistencies in the scope and coverage of the funds on which the system's budget preparation and execution functions are based. Budget preparation is more comprehensive and includes the majority of funds, yet it excludes resources allocated to MMDAs, which are recorded in the separate ACTIVATE system. Within the GIFMIS, MMDA budgets are only identified by a single line item. The expenditure side of GIFMIS is even more limited and excludes a larger number of funds. While resources allocated to the Government of Ghana Fund and MMDA transfers are captured in detail, information on IGF, statutory funds, and donor support are not recorded in the GIFMIS expenditure module.

1.51 The MoF and the CAGD have limited oversight of IGF and statutory funds. Several ministries and other public agencies have the legal authority to collect and spend IGF, however, there is no clear mechanism for reporting these revenues and expenditures in the GIFMIS. Similarly, transfers from statutory funds are not under the MoF's discretion and do not flow through the GIFMIS expenditure module, which makes them difficult to monitor.

1.52 Integrating all sources of budgetary funding and recording all expenditures in the GIFMIS would greatly enhance the government's capacity for strategic budget management. Integrating MMDA transfers, IGF, and statutory funds into the GIFMIS will improve expenditure monitoring and strengthen PFM controls. The MoF is planning to phase out the ACTIVATE system and create a budget for MMDAs in the GIFMIS, and the authorities are also piloting a plan to integrate some IGF expenditures into the GIFMIS. Expanding the coverage of the GIFMIS, adopting the new chart of accounts, and consolidating the single treasury account should strengthen budget execution and reduce the accumulation of arrears.

1.53 Improving the ability of the MoF and the line ministries to align actual expenditures with budget allocations would further strengthen budget management. Budgetary credibility hinges on minimizing the difference between budgeted and actual expenditures. Once all funding sources have been incorporated into the GIFMIS, the government should consider adopting the BOOST budget and expenditure tool (Box 1.1).

1.54 An enabling legal framework will be crucial to PFM reform efforts. Legislative changes will be required to strengthen fiscal responsibility and bolster the MoF's authority to enforce PFM discipline. Specific legal provisions will be necessary to establish program-based budgeting and financial management systems. Consistent implementation of fiscal rules and regulations will be vital to their success, and the government and its development partners must work to build and sustain a broad political consensus for reform.

1.55 In addition to its fiscal-consolidation efforts, the government has embarked on an ambitious structural-reform initiative designed to reinforce the achievements of the stabilization program. The World Bank and the IMF are supporting further measures to boost revenues and tighten expenditure controls. However, progress to date has been uneven, and the authorities will need to accelerate the implementation of key elements of the reform agenda.

BOX 1.1: THE BOOST BUDGET TOOL

BOOST is the product of a World Bank collaboration launched in 2010. It strives to make highly disaggregated budget data available to policymakers, researchers, development practitioners, and members of civil society in order to improve budgetary decision-making, facilitate analysis, enhance transparency, and promote accountability. BOOST focuses on: (i) supporting expenditure analysis; (ii) promoting the public dissemination of budget data; and (iii) improving PFM processes and systems.

BOOST is designed to be integrated with the GIFMIS. By analyzing the government's own public expenditure information through a consistent methodology, the program presents highly granular fiscal data in a clear and accessible format. Each BOOST dataset typically allows the approved, revised, and executed budgets to be cross-referenced across years and disaggregated by government level, administrative unit, subnational authority, and functional classification.

To ensure sustainability, accuracy, and government ownership of BOOST, a five step delivery model has been developed. Four of the five phases of the schematic description of the BOOST process illustrated below focus on engaging country authorities to secure their support and ownership of the initiative, obtaining access to the existing detailed budget data and constructing the database, applying BOOST analytical techniques to answer salient policy questions, and assisting governments with training to ensure they can sustain the maintenance of a BOOST database and analytical application.

Source: http://wbi.worldbank.org/boost/

1.56 The completion of the reform process and its long-term sustainability are both subject to significant uncertainty. Since the early 2000s, Ghana has experienced multiple periods of extensive PFM reform planning that ultimately yielded only modest results. Political commitment proved to be a binding constraint on the success of these efforts, as early enthusiasm gave way to competing priorities and bureaucratic inertia.[31] The political cycle led to turnover in the senior management of key ministries and public agencies, and election-driven expenditure pressures generated a recurring pattern of rapid fiscal expansion followed by consolidation and the tightening of expenditure controls. Past elections have also repeatedly distracted administrative effort and political attention away from the reform program.

CONCLUSIONS AND RECOMMENDATIONS

1.57 The revised income tax law that became effective in 2016 represents a significant improvement over the previous legislation. The government's plan to create a business-information system to improve tax compliance and broaden the tax base is also highly encouraging. Nevertheless, the authorities will also need to thoroughly review and evaluate the country's tax-incentive regime, which imposes a heavy cost in terms of foregone revenue.

1.58 Effectively managing the country's oil revenue will continue to present a major fiscal-policy challenge, the importance of which will increase in tandem with the rising

[31] OECD, 2012.

share of oil in total public revenue. Sound budget management will require more accurate revenue forecasts that limit the risk of overestimation, as excessively optimistic oil-revenue projections can cause budgetary shortfalls that contribute to the accumulation of arrears and further compromise budgetary credibility. Over the longer term, the government will need to formulate a detailed plan to manage the fiscal impact of the projected decline in oil revenues expected after 2025.

1.59 More effective public investment management could enhance the impact of capital spending, enabling the government to accelerate growth even without a substantial increase in the investment budget. Improving the quality of the investment portfolio will require more rigorous and transparent arrangements for project appraisal, selection, and approval. Each project's rationale should be carefully weighted, alternatives should be evaluated, and all projects should be subject to both cost-benefit and risk analyses. The projected surge in oil revenues underscores the importance of investing efficiently in strategic sectors to support sustainable poverty reduction and promote shared prosperity. The government is currently implementing a public investment management reform program with support from the World Bank, but given Ghana's large infrastructure and development needs, additional policy actions may be necessary to improve the investment climate and encourage greater private sector participation in public investment projects.

1.60 To maintain fiscal stability, the government must continue to implement its consolidation program while building its debt-management capacity. The completion of the planned fiscal consolidation will be essential to the sustainability of the country's debt dynamics. Tight expenditure controls will limit the accumulation of new debt, while improving macroeconomic conditions will reduce financing costs. Proactive management of the existing debt stock will be necessary to maintain prudent risk levels. While the authorities have made progress in establishing buffers for certain debt obligations, the government will need to strengthen its institutional capacity in order to prepare and implement an effective medium-term debt strategy. The successful completion of the World Bank technical assistance project launched in November 2016 will build the government's capacity for strategic debt management, facilitate the preparation of annual borrowing plan, improve treasury management and forecasting, enhance debt reporting and transparency, and strengthen operational risk management. Further capacity building will be necessary to ensure that all debt issued by MMDAs and SOEs is closely monitored to contain the risk of contingent liabilities.

1.61 The government launched a far-reaching PFM reform strategy in August 2015, which includes implementing the second phase of the GIFMIS with support from the World Bank.[32] Expanding the coverage of the GIFMIS will allow for tighter budgetary control, more effective cash and debt management, and more timely and accurate expenditure reporting. The World Bank is also supporting efforts to strengthen budgetary planning, improve the budget framework, and enhance fiscal risk management and reporting. The single treasury account currently covers 90 percent of the government's accounts at the central bank and at commercial banks, and further reforms will be necessary to make it fully comprehensive.

[32] In April 2015, the World Bank's Board of Directors approved a US$45 million project designed to improve Ghana's budget management and strengthen credibility of the national budget; to support the design, development, implementation and coverage of the Government's public financial management (PFM) systems and control; and to enhance external audit capacity and legislative oversight over budget management.

1.62 The authorities are attempting to limit the accumulation of arrears by implementing a commitment-control mechanism and a pay-to-procure system across the public administration. The pay-to-procure system was established in June 2015 with support from the World Bank. When fully implemented, it is expected to cover payments from all ministries and public agencies, statutory funds, IGF, and donor-funded projects.

1.63 Recent legislative reforms represent a significant improvement in the legal framework for PFM, but important deficiencies remain. The new legislation is designed to enhance fiscal reporting and improve transparency, streamline the budget preparation process, strengthen commitment controls, bolster the authority of audit committees, and introduce explicit debt- and cash-management regulations. However, while these reforms introduce fiscal responsibility principles, they omit important technical aspects of a well-functioning PFM system. Further legal reforms should mandate that the fiscal strategy and rules be approved by Parliament, and that they be published in a timely and accessible manner.[33]

1.64 Sustaining the fiscal consolidation over the medium term will require concerted efforts on both the revenue and expenditure sides of the budget. While efficiency improvements can ease budget constraints, expanding the fiscal envelope and broadening the tax base will become increasingly critical as the government strives to mitigate the budgetary impact of volatile oil revenues. In this context, Chapter 2 explores options for streamlining Ghana's generous system of tax exemptions and incentives, which not only imposes a steep cost in terms of foregone revenue but also distorts price signals, with negative implications for economic competitiveness. On the expenditure side, personnel spending continues to consume a large share of budgetary resources. Chapter 3 examines strategies for tightening control over the wage bill and rebalance spending in favor of capital investment to support long-term growth and facilitate the structural transformation of the Ghanaian economy.

1.65 To accelerate growth and support sustainable development, the government will need to maintain tight expenditure control, complete the implementation of key structural reforms, and sustainably expand the available fiscal space for capital investment and social spending. Increased investment in the health and education sectors will build the capacity of the national workforce, thereby bolstering economy-wide competitiveness and facilitating diversification beyond the extractive industries. In this context, Chapter 4 examines sectoral expenditure priorities and evaluates strategies for bolstering the effectiveness of public education and health spending. Finally, policymakers must continue to devote attention and resources to the agricultural sector, even as the rise of the oil industry and the growth of non-tradable services temporarily draw labor and capital away from agricultural production. Agricultural spending is structurally pro-poor, and continued investment in both the food and cash-crop subsectors will have a positive impact not only on poverty and fiscal equity, but also on macroeconomic stability and employment dynamics, as a thriving rural economy will be better equipped to absorb labor and capital after the country's oil reserves are depleted.

[33] IMF, 2016b.

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CHAPTER 2 REFORMING TAX EXPENDITURES TO BOOST DOMESTIC REVENUE MOBILIZATION [34]

Ghana provides a wide range of tax exemptions and incentives, collectively referred to as "tax expenditures,"[35] designed to encourage private investment and reduce the tax burden on certain economic sectors and income groups. Although they are not fully recorded in the budget and less visible than more traditional forms of public spending, tax expenditures can impose a steep cost in terms of foregone revenue. Moreover, as their purpose is to realign incentives in favor of certain groups of firms and taxpayers, tax expenditures inevitably create economic distortions, and they frequently give rise to vested interests that will seek to protect them regardless of their social or economic value.

Ghana's tightening fiscal envelope presents policymakers with a critical opportunity to assess the cost-effectiveness of the country's tax expenditures and evaluate potential alternatives. Data from Ghana's MoF indicate that the cost of tax expenditures reached 5.2 percent of GDP in 2013. VAT exemptions and preferential VAT treatment alone amounted to 4.2 percent of GDP, with customs exemptions making up another 0.9 percent. However, this is itself an underestimate as it does not include exemptions under the personal income tax as well as preferential tax treatments granted in the extractive sector. While statistical issues complicate comparisons between years, similar data for 2014 suggest that tax expenditures remained broadly stable at 5.0 percent of GDP. In the context of Ghana's ongoing fiscal consolidation, reforming tax expenditures could enable the authorities to boost domestic revenue generation and enhance the efficiency of fiscal policy without compromising the government's expenditure priorities.

Tax expenditures that advance key social and economic objectives should be reformed to enhance their effectiveness, while those that serve no clear policy purpose should be eliminated. In reviewing expenditures designed to alleviate the tax burden on lower-income households, the government should begin by evaluating the impact of VAT exemptions against zero-rating, as the latter typically reduces consumer prices more than the former. When assessing tax expenditures designed to incentivize forms of consumption that generate positive externalities, policymakers should estimate the price elasticity of that consumption in order to realign price incentives efficiently. Tax expenditures targeting consumer goods that produce no positive social or economic spillovers should be identified and eliminated.

Trade-related tax expenditures should be consolidated into a holistic export-promotion strategy that includes a narrow range of tax incentives, but which focuses on measures to promote domestic competition and foster regional integration. Tax expenditures can boost the export-competitiveness of certain sectors, but they can also artificially sustain industries that are structurally uncompetitive. Moreover, tax expenditures frequently accrue to industries and sectors that would be viable without them. Customs exemptions on manufacturing inputs and capital goods may be retained if they contribute to a clear sectoral development strategy, but exemptions on most consumer goods should be phased out. Tax exemptions granted via special permits should also be eliminated. All remaining exemptions should be applied to classes of goods and services, not to firms.

Policymakers should evaluate the impact of tax holidays and location-based incentives, such as "free zones," as both policy types are inherently inefficient and prone to abuse. The government should investigate the behavior of businesses that receive tax holidays and those located in special economic zones and evaluate policy options to reduce distortions and prevent tax avoidance. Overall, business tax expenditures should be routinely evaluated to determine which firms and sectors are benefitting from preferential tax treatment and to assess the extent to which supporting these industries is consistent with Ghana's strategic development goals.

[34] The analysis presented in this chapter is based on James and Oppong (2016).

[35] Exemptions result in revenue foregone which is a kind of 'expenditure' but as a result of the tax system. Hence, the revenue foregone is a 'tax expenditure'. The instruments used as well as the foregone revenue are both referred to here as 'tax expenditures' interchangeably.

INTRODUCTION

2.1 Ghana's tax regime includes a system of exemptions and incentives designed to achieve specific social and economic objectives. Some of these "tax expenditures" are intended to promote investment in particular industries, sectors, or geographic regions, while others aim to reduce the tax burden on lower-income households. Tax expenditures function by distorting economic incentives, and they impose both direct and indirect fiscal costs. Consequently, measuring the effectiveness of tax expenditures requires comparing the extent to which they advance their stated policy objectives against the revenue losses they entail and the economic inefficiency they create.

2.2 There are many different types of tax expenditures used internationally, each with its own unique fiscal and economic implications. Some are deductions from corporate or personal income tax liability, some are special rates applied to direct or indirect taxes, some fully exempt certain individuals or firms from taxation, and some defer tax liability on specific assets and transactions, such as accelerated-depreciation deferrals on investments. The five most common tax expenditures are: (i) exemptions, under which income is excluded from the tax base; (ii) allowances, which are amounts deducted from gross taxable income; (iii) credits, which are amounts deducted from tax liability; (iv) rate relief, under which a reduced rate is applied to a given class of taxpayers or economic activities; and (v) tax deferrals, under which taxpayers can delay payment. All types of tax expenditures reduce the present value of income subject to taxation, thereby shifting resources from the government to beneficiary groups or incentivizing certain types of economic activity.

2.3 While they often impose considerable fiscal costs, tax expenditures are rarely subject to the same level of scrutiny as direct expenditures. Many tax expenditures are ostensibly designed to improve the progressivity of fiscal policy, yet in practice they tend to systematically favor taxpayers in higher marginal rate brackets. Tax expenditures can erode the tax base, distort the allocation of productive factors, create opportunities for corruption, and encourage rent-seeking.[36] In the interest of transparency, several countries now publish tax-expenditure reports along with their regular budgets. These reports are standard practice for countries in the Organisation for Economic Co-operation and Development (OECD) and are becoming increasingly common in developing countries. At present, nearly 54 countries publish tax-expenditure estimates, typically on an annual or biennial basis.[37] Ghana has recently become a member of the OECD Development Centre, and regular tax-expenditure monitoring will be crucial to achieving the government's objectives for transparency and accountability.

2.4 Accurately calculating tax expenditures is a data-intensive process, and many countries lack the institutional capacity to produce regular estimates. Annex 2.1 describes different methodologies for calculating tax expenditures, all of which require extensive financial information on taxpayers. The analysis presented in this chapter relies on the "foregone-revenue

[36] Zee, Stotsky and Ley, 2001.

[37] These are Argentina, Australia, Brazil, Burundi, Canada, Chile, Colombia, Costa Rica, Denmark, Dominica, El Salvador, Finland, France, Gabon, Germany, Ghana, Grenada, Guatemala, India, Jamaica, Kenya, Indonesia, Italy, Japan, Kazakhstan, Kenya, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Peru, Papua New Guinea, Philippines, Portugal, Russia, Rwanda, Senegal, Serbia, Slovakia, South Africa, South Korea, Spain, St. Kitts, St. Lucia, Sweden, Tanzania, Trinidad and Tobago, Tunisia, Turkey, Uganda, the United Kingdom, the United States and Zambia. Malaysia's tax expenditures are not made public, and only initial estimates for Cambodia's tax expenditures are available. See: Burton and Sadiq (2013).

method," which focuses on the fiscal costs incurred by the government. While this methodology does not account for the ways in which policy changes can alter taxpayer behavior, its data requirements are most consistent with the tax information available in Ghana.

2.5 Because tax expenditures reflect deviations from the standard tax regime, the first step in analyzing tax expenditures is to define the standard regime. Maintaining consistency and comparability over time requires that the standard regime encompass all tax provisions and all taxpayers. Defining the standard regime is not only necessary to identify and catalogue tax expenditures, it also allows policymakers to assess the efficiency and equity of the underlying tax structure and evaluate its appropriateness vis-à-vis the government's policy goals.

GHANA'S STANDARD TAX REGIME

2.6 For the purposes of this report, the Internal Revenue Act of 2000, the VAT Act of 2013, and the Customs Act of 2013 establish the basis for Ghana's standard tax regime, and each includes a number of important tax expenditures. These laws have subsequently been changed with the relevant law currently under operation being the Income Tax Act, 2015 and the Customs Act. Of 2015; and they define the personal income taxes applied to both residents and nonresidents, the corporate income tax, the gift tax, and a set of customs duties. They specify rates and terms for capital allowances, carrying forward losses, and zero-rating VAT on exports. The Income Tax Act establishes a 25 percent tax rate on firm profits, but it also offers numerous tax incentives to specific industries, sectors, and economic activities (Table 2.1). The Customs Act also includes exemptions for diplomatic and international agencies, as well as member countries of the Economic Community of West African States (ECOWAS), and it applies special rates to specific economic sectors (see Annex 2.3). Other legislations, including the 1995 Free Zones Act, the 2006 Mines and Minerals Act, the 1983 Ghana National Petroleum Corporation Act, and the 2016 Exploration and Production Act, provide special tax treatment in limited cases.

2.7 Customs incentives are provided through lower tariff rates and exemptions defined in domestic legislation and international treaties. ECOWAS agreements and other bilateral and multilateral arrangements exempt a range of imports. In addition, domestic laws provide exemptions for specific sectors, such as mining and petroleum, manufacturing, and livestock production, and for firms located in designated free zones.

TABLE 2.1: TAX INCENTIVES PROVIDED TO FIRMS UNDER THE INTERNAL REVENUE ACT 2000

Income from Activity	Tax Incentive
Cocoa farming	Indefinite tax holiday
Farming tree crops	10-year tax holiday
Livestock (other than cattle), fish farming, and cash-crop production	5-year tax holiday
Cattle farming	10-year tax holiday
Agro-processing	Indefinite tax holiday for firms located in the Northern, Upper East, and Upper West Regions; 5-year tax holiday followed by a reduced rate of 20 percent for five years for firms located in Accra/Tema or 10 percent for firms located in other regional capitals
Real estate and construction activities of firms associated with the development of low-cost housing	5-year tax holiday
Firms located in specified "free zones"	Indefinite tax holiday for firms located outside regional capitals and in the Northern, Upper East and Upper West regions; 10-year tax holiday followed by a rate of 4 percent for agro-processors in Accra/Tema and regional capitals and for garment and textile manufacturers, or 5 percent for other manufacturers located outside regional capitals (this provision was subsequently changed in 2013).
Venture Capital Financing Company	10-year tax holiday
Rural Banks	10-year tax holiday
Waste Processing and Recycling	7-year tax holiday
Companies listed on the Ghana Stock Exchange	22 percent tax rate for the first three years after the initial public offer
Manufacturing companies located outside of Accra/Tema	75% of the regular rate of Income Tax for firms located in regional capitals and 50% of the regular rate of Income Tax for firms located elsewhere
Hotels	20 percent tax rate
Income derived from loans to farming enterprises and leasing companies by a financial institution	20 percent tax rate
Income of exports for Companies engaged in nontraditional exports	8 percent tax rate

TABLE 2.2: VAT EXEMPTIONS ON IMPORTS AND EXPORTS

Unprocessed domestically produced agricultural goods and food products
Live animals bred and raised in Ghana
Agricultural inputs
Fishing equipment and intermediate goods used to produce fishing equipment
Water, excluding bottled water
Household electricity
Textbooks, newspapers, and other informational materials
Educational services
Laboratory and library equipment
Medical services and medical supplies
Pharmaceuticals listed under Chapter 30 of the Harmonized Standard Code
Domestic transportation
Machinery and parts for agriculture, fishing, mining, manufacturing, railways, upstream petroleum production, and dredging
Crude oil and hydrocarbon products
Certain forms of residential real estate, agricultural land, and public works
Financial and insurance services
Goods designed exclusively for the disabled
Postal services
Salt
Mosquito nets

ESTIMATING TAX EXPENDITURES IN GHANA

DATA AND METHODOLOGY

2.8 The estimates for customs, VAT, and income tax revenue presented below are based on data reported by the Ghana Revenue Authority (GRA). However, data quality varies across tax categories. While the granularity of the customs data allows for a detailed analysis of tax expenditures by product and incentive type,[38] information constraints represent an important caveat to the VAT and income-tax calculations. Firm-level VAT data from 2013 include sales revenue, purchases of domestic and imported inputs, and lists of exempted and zero-rated goods and services. A country's "supply and use" tables are the basis for estimating foregone VAT revenue from domestic value addition. Since an updated table is not available for Ghana, the 2004 table is re-estimated for 2013. However, this implicitly assumes that the structure of the Ghanaian economy

[38] Customs data include exemptions as recorded by the "trade net" system. Separate files were provided for each exemption category, with some gaps in the data for earlier years. The data include line-by-line details on imports and importers, including harmonized system codes and product descriptions, cost, insurance, and freight values, and both collected and exempted taxes.

remained unchanged between 2004 and 2013, which is highly unlikely given the rise of the oil sector during this period (Table 2.3).

2.9 Data constraints also affect the calculation of income tax exemptions. The analysis is based on the data for total sales, chargeable income, tax liability, and actual taxes paid. However, these data are subject to errors, omissions, and the discretion of enumerators. In the absence of an automated system for collecting tax-return data, the information had to be compiled manually by examining the tax records of the GRA's Large Taxpayer Office and Medium Taxpayer Office.[39]

TAX-EXPENDITURE ESTIMATES

2.10 Ghana's total tax expenditures are estimated to have reached GH¢ 5 billion in 2013, or 5.2 percent of GDP. Ghana's tax expenditures are especially large relative to tax revenue, which amounted to about 20 percent of GDP in 2013. Were they accounted in the same way as other forms of public spending, tax expenditures would have been the second largest item in the 2013 budget after the public-sector wage bill.[40] However, Ghana's tax expenditures as a share of GDP are close to the average for the 28 countries for which comparable data are available. Among countries in SSA, Ghana's tax-expenditure regime is most similar to those of Gabon and Guinea (Figure 2.1). In 2013, the overwhelming majority of tax expenditures were related to domestic VAT, which accounted for over 75 percent of total foregone revenue (Table 2.3).

TABLE 2.3: ESTIMATED TAX EXPENDITURES IN GHANA, 2013

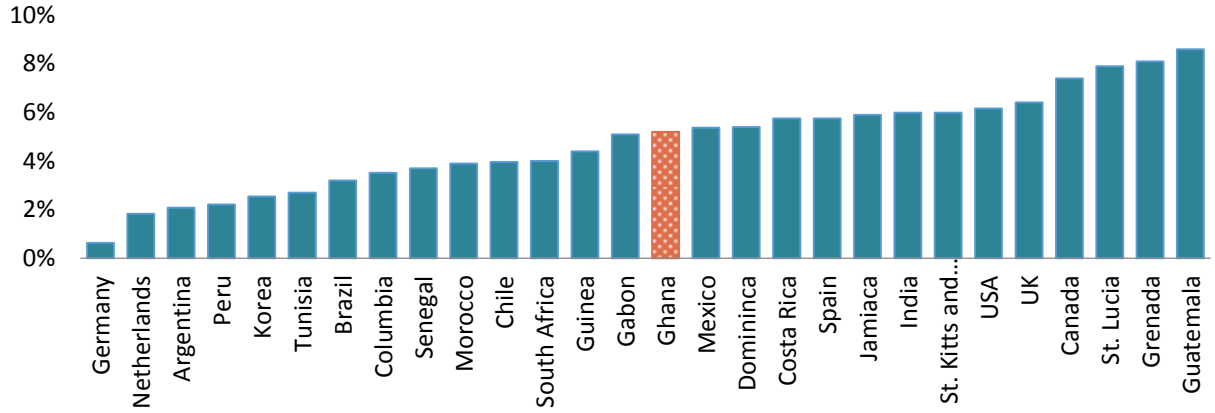
	GH¢ Millions	% of GDP	% of Total
Customs Duties	797.4	0.9%	16.3%
VAT			
on Imports	321.5	0.3%	6.6%
on Domestic Value Addition	3,665.8	3.9%	75.1%
Income Tax	93.8	0.1%	1.9%
Total	5,044.4	5.2%	100%

Source: World Bank staff calculations

[39] Some taxpayers may have been excluded from the analysis. For example, the available information on tax expenditure estimates for free-zone developers may be incomplete, as tax expenditure data based on tax returns are not collected electronically.

[40] Due to differences in methodology and possible data errors, the estimates in this analysis differ from those produced by the only other attempt to estimate tax expenditures in Ghana (see Annex 2.2).

FIGURE 2.1: TAX EXPENDITURES BY COUNTRY (% OF GDP)



Source: World Bank Staff calculations.

2.11 While international comparisons can help put the cost of Ghana's tax expenditures into context, differences in statistical coverage and methodological assumptions at the country level may affect the comparability of tax-expenditure estimates. While a comprehensive estimate should include all taxes—personal and business income taxes, trade-related taxes, sales taxes, and VAT, etc.—most countries suffer from data limitations that prevent a thorough accounting of tax expenditures. Moreover, tax-expenditure estimates hinge on the method used to define the "standard" tax regime against which tax expenditures are measured. For example, some countries use a share of carried-forward losses to set the benchmark, while others regard all carried-forward as tax expenditures. Some countries use the World Trade Organization's bound rate—the highest import duty allowable under World Trade Organization agreements—as the benchmark and consider any rate below that to be a tax expenditure, but most only define specific import-duty exemptions as tax expenditures.

VAT EXPENDITURES

2.12 In 2013, VAT expenditures cost the government 4.2 percent of GDP in foregone revenue. VAT exemptions, zero-rating, and related incentives are common worldwide and most often apply to inputs for the education, healthcare, transportation, media, and agricultural sectors (Table 2.4)[41] VAT exemptions for financial services and real estate are sometimes classified as measures designed to streamline tax administration, rather than as tax expenditures, due to the complexity of calculating value addition in these sectors.

2.13 VAT expenditures effectively reduce the sale price of goods and services, and in some cases they eliminate the administrative burden of VAT compliance. However, tax exemptions and zero-rating can increase administrative costs for firms that deal in both exempt and non-exempt items. Moreover, VAT exemptions that only apply to certain levels of the value chain can weaken tax reporting, as VAT-exempt firms are also exempt from the corresponding reporting requirements. Incomplete price information for the entire value chain can greatly complicate VAT enforcement. Ghana's limited use of zero-rating is consistent with international good practices for

[41] In OECD countries, inputs related to cultural activities, healthcare, and charitable contributions most often benefit from exemptions. In Africa, VAT exemptions more often apply to the agriculture, education, transportation, and mining sectors. However, the health sector is treated similarly in Africa and the OECD.

VAT design, as it reduces price distortions and minimizes the pressure that refund requests can impose on the revenue administration.

TABLE 2.4: VAT EXEMPTIONS AND ZERO-RATING IN GHANA, AFRICA & THE OECD

	Prevalence of VAT Exemptions (% of Countries)		VAT Exemptions (Yes/No)	Prevalence of VAT Zero-Rating (% of Countries)		VAT Zero-Rating (Yes/No)
	Africa	**OECD**	**Ghana**	**Africa**	**OECD**	**Ghana**
Agricultural Inputs	50%	9%	Yes	32%	15%	No
Agricultural Produce	71%	6%	Yes*	50%	27%	No
Transportation	68%	24%	Yes	39%	30%	Yes
Real Estate	71%	100%	No	7%	3%	No
Education	93%	12%	Yes	18%	0%	No
Health/Pharma	79%	94%	Yes	29%	27%	No
Capital Goods	11%	0%	No	4%	9%	No
Fuel	7%	0%	Yes	0%	3%	No
Cultural	64%	97%	Yes	4%	27%	No
Finance (Excluding Insurance)	82%	100%	Yes	7%	6%	No
Mining and Petroleum**	36%	0%	Yes	11%	0%	No
Charitable	7%	97%	No	4%	6%	No
Construction	7%	12%	No	0%	6%	No
Tourism	18%	6%	No	4%	9%	No

*: In the raw state; **: zero rated if exported
Source: PWC (2014), OECD (2012) and James (2014)

2.14 VAT zero-rating is much less common in Ghana than it is in other African countries. It is also less common than in the OECD, where more than 54 percent of member states zero-rated certain goods in 2015. Only exports and international transportation services qualify for zero-rating in Ghana, which means that international transportation is treated as consumption abroad and is not subject to VAT. Supplies to the free zones are also zero rated as such supplies are treated as exports. Ghana's health sector receives similar tax treatment as health sectors in other African and OECD countries. However, education exemptions and zero-rating are far more common elsewhere in Africa than they are in Ghana.

2.15 The use of VAT exemptions, as opposed to VAT zero-rating, is a reflection of the difficulty in implementing zero rating in Ghana. VAT exemptions apply to transactions between retailers and consumers, and producers are not able to claim tax credits for the inputs used to produce VAT-exempt goods and services. By contrast, zero-rated products are still technically subject to VAT, but at a rate of zero percent. As a result, not only are consumers exempt from VAT liability, but producers are also able to claim credits for inputs used in the production of zero-rated

goods and services.[42] As a result, zero-rating lowers the retail prices of goods and services more than VAT exemptions. However, zero rating is difficult to implement as it implies that several producers would be in a refund position and the tax administration would be burdened in implementing such a large-scale refund scheme.

2.16 Some products, such as mosquito nets, receive VAT exemptions because they generate social benefits, but zero-rating would be a more appropriate means of encouraging their sale and use. Insecticide-treated bed nets are exempt from VAT in Ghana. VAT exemptions are intended to lower the price of bed nets, thereby increasing their use and decreasing the prevalence of insect-borne diseases like malaria.[43] In Nigeria, zero-rating the insecticides used to treat bed nets increased sales by an estimated 9-27 percent.[44] As with other goods, exempting bed nets from VAT results in higher retail prices than zero-rating them, as producers remain liable for VAT on insecticides and other inputs, and these costs are passed on to consumers.[45] As opposed to the argument in the previous paragraph, sickness is a negative externality on society as a whole and it is appropriate that not only the poor but also the rich benefit from the use of mosquito nets and hence lower tax burden may be appropriate in such a case.

2.17 Goods and services that are disproportionately consumed by lower-income households may be exempt from VAT to alleviate the tax burden on the poor, but these exemptions must be carefully targeted. Ghana exempts agricultural produce from VAT because food represents a large share of the consumption of poor households. However, not all VAT exemptions on agricultural produce are necessarily progressive or pro-poor, as households at different income levels consume different types of food. In South Africa, poor households were found to spend far more of their income on local staple vegetables, such as potatoes, tomatoes, and spinach, than they did on specialty produce, such as broccoli and mushrooms.[46] The government responded by zero-rating VAT for staple vegetables only, which benefitted poor families more than their wealthier counterparts. Despite this targeting improvement, the revised system remained subject to significant leakages, as wealthy households also consumed a large amount of VAT-exempt staple foods. Such exemptions should not apply to imported agriculture products just as in the case of domestic production.

BOX 2.1: A NOTE ON THE METHODOLOGY FOR CALCULATING VAT EXPENDITURES

The most commonly used method for calculating VAT expenditures relies on a given country's "supply and use" tables, which record the inputs supplied to each sector of the economy and the products each sector produces. These tables provide all the information necessary to estimate the potential VAT base and determine the revenue loss incurred through VAT exemptions and zero-rating. Unfortunately, Ghana's most recent supply and use tables date from 2004. While those tables have been scaled to reflect GDP growth between 2004 and 2013, changes in the sectoral composition of the economy could not be accounted for, and the resulting estimates should be regarded with caution.

Source: Hutton (2010)

[43] Alilio *et al.*, 2007.
[44] Simon *et al.*, 2002.
[45] Africa Fighting Malaria, 2007.
[46] *Ibid.*

2.18 A specific subset of VAT expenditures applies to imported inputs rather than domestic sales. Ghana's customs service collects data on import exemptions and the firms that receive them. VAT expenditures on imports reached an estimated GH¢ 659 million in 2013, or 0.7 percent of GDP (Table 2.5). Almost half of this amount—GH¢ 321.5 million—went to final consumers or to businesses that either were not registered for VAT or that did not file tax returns, and thus the government was unable to recapture the exempted VAT revenue through subsequent domestic sales. This amount therefore represents the total foregone revenue due to import VAT exemptions, since the remaining GH¢ 337.6 million was ultimately recovered through VAT applied to the domestic value chain.

2.19 The fiscal cost of VAT expenditures on domestic sales is difficult to estimate, as tax forms do not capture the necessary data. A thorough analysis would also require information on exempt purchases as well as exempt sales, and on whether each sale was made to a final consumer or an intermediate firm (Box 2.1). This information is necessary because, as is the case with imports, exempted VAT revenue on domestic sales may be recovered at higher levels of the value chain.

TABLE 2.5: TAX-EXPENDITURE TREATMENT FOR IMPORT VAT EXEMPTIONS (GH¢ MILLIONS)

	Import VAT	Import National Health Insurance Levy	Total	Share
Government agencies, exempt individuals and organizations	120.2	16.2	136.3	20.7%
Special permits pending Parliamentary approval	103.6	20.1	123.7	18.8%
Mining concessions	93.4	18.6	112.0	17.0%
Manufacturing concessions	61.6	12.1	73.7	11.2%
Parliament-approved exemptions (agreements, priority projects, bi-lateral agreements	61.1	12.2	73.4	11.1%
General tariff exemptions	50.6	9.7	60.3	9.1%
The Ghana National Petroleum Company	39.1	7.6	46.6	7.1%
The Ghana Investment Promotion Centre	16.4	3.3	19.6	3.0%
ECOWAS	11.2	2.2	13.4	2.0%
Tax expenditures on import VAT	557.1	102.0	659.1	100.0%
A. Unrecoverable VAT exemptions received by final consumers, businesses in exempt sectors and taxable businesses not registered for VAT	275.0	46.5	321.5	48.8%
B. Recoverable VAT exemptions received by taxable businesses registered for VAT	282.1	55.5	337.6	51.2%

Source: World Bank staff calculations based on Ghana Statistical Service (GSS) data

2.20 Data limitations notwithstanding, Ghana's VAT expenditures on domestic sales appear to be extremely high, reaching an estimated 3.9 percent of GDP in 2013. Total unrecoverable expenditures on final sales, exempt sectors, or businesses not registered for VAT amounted to GH¢ 321.5 million, or 20 percent of government revenue in 2013. Moreover, VAT

expenditures likely increased in 2014 when the VAT rate was raised from 12.5 to 15 percent (Table 2.6).

TABLE 2.6: TAX EXPENDITURES ON DOMESTIC VAT (GH¢ MILLIONS)

Industry or Sector	Tax Expenditure TE= A+B+C+D+E	Final consumption of exempt goods by registered firms (A)	Consumption of exempt goods from registered firms by unregistered firms (B)	Additional input tax credit for purchasers (C)	Input tax disallowance (D)	Cascading (E)
Cocoa and Other Crops	1012.7	930.5	74.7	74.7	-61.6	-5.6
Agro-Processing	936.5	655.9	0.0	337.7	-54.3	-2.8
Transportation and Logistics	779.9	1290.2	6.6	18.8	-513.0	-22.8
Education	344.2	355.4	0.0	10.1	-21.0	-0.3
Health	223.6	205.5	0.0	42.6	-23.5	-0.9
Water	198.1	200.2	0.0	20.6	-22.2	-0.6
Forestry	116.3	144.6	4.6	3.8	-35.5	-1.1
Tourism	109.8	1.7	108.0	0.5	-0.4	0.0
Electricity	99.0	61.4	0.0	282.3	-215.9	-28.8
Livestock	60.4	57.1	8.2	8.2	-11.8	-1.2
Manufacturing	59.0	93.9	0.0	24.4	-53.9	-5.5
Trade	20.9	29.4	3.0	6.0	-15.3	-2.1
Fishing	15.3	16.1	5.0	0.6	-5.9	-0.4
Mining	11.9	16.2	0.0	0.7	-4.9	-0.2
Services	0.6	0.8	0.5	0.5	-1.0	-0.1
Government	0.0	0.0	0.0	0.0	0.0	0.0
Information Technology	0.0	0.0	0.0	0.0	0.0	0.0
Finance	-18.1	45.3	0.0	42.6	-94.0	-12.0
Construction and Real Estate	-304.2	111.5	0.7	2.0	-372.2	-46.2
Total (GH¢)	3665.8	4215.8	211.2	875.9	-1506.6	-130.5
Total (% of GDP	**3.9**	**4.5**	**0.2**	**0.9**	**-1.6**	**-0.1**

2.21 Exemptions for cocoa and other crops comprise the largest VAT expenditures on domestic value addition, followed by exemptions for agro-processing and transportation. The water and healthcare sectors also benefit from significant exemptions. However, the manufacturing sector receives limited exemptions, as most apply to intermediate inputs rather than finished products, and foregone revenues are recouped later in the domestic value chain. Similar patterns are observed in the finance and construction sectors.

2.22 Ghana's VAT expenditures impose a heavy fiscal cost, and in the context of the country's current fiscal-consolidation effort, policymakers should consider eliminating VAT expenditures entirely. Applying VAT evenly to all goods and services would expand the tax base, and a portion of the additional revenue could be used to compensate poor households for any increase in their net tax burden. Moreover, ending VAT expenditures would eliminate important fiscal-policy leakages. For example, rice is currently VAT exempt, as it represents a significant share of the consumption of poor households. Yet wealthy households also consume rice, and they too benefit from the VAT exemption. Removing the exemption and replacing it with targeted cash transfers or other forms of pro-poor spending would enhance the efficiency of fiscal policy while protecting the welfare of low-income households. Ending VAT expenditures on private education and health services would have an especially strong progressive impact, as these services are overwhelmingly consumed by wealthier households, while the poor tend to rely on government schools and hospitals.

TRADE-RELATED TAX EXPENDITURES

2.23 Tax exemptions established under the Customs Code cost the government approximately GH¢ 800 million, or 0.9 percent of GDP, in 2013. Exemptions for manufacturing-related imports comprised the largest share, amounting to a full 0.2 percent of GDP (Table 2.7). Special permits pending parliamentary approval[47] represented the second-largest share at 0.15 percent of GDP.

TABLE 2.7: CUSTOMS EXEMPTIONS, 2013 (GH¢ MILLIONS)

Category	Import Duty	ECOWAS Levy	Export Development Levy	Other Fees and Levies	Total	% Total
Manufacturing	187.9	0.0	0.0	6.0	193.9	24%
Special permits pending Parliamentary approval	107.2	5.8	5.8	18.1	137.0	17%
Mining	49.5	0.0	0.0	0.7	50.2	6%
Special permits approved by Parliament	59.9	3.5	3.5	6.9	73.6	9%
Public Electricity and water utilities	43.8	2.0	2.1	4.9	52.9	7%
ECOWAS trade	92.0	1.4	0.0	3.6	96.9	12%
The Ghana National Petroleum Corporation	31.3	1.8	1.8	1.8	36.7	5%
Diplomatic missions	29.3	1.3	1.3	7.9	39.7	5%
Agriculture and livestock inputs	23.3	0.5	0.6	3.7	28.1	4%
Ghana Investment Promotion Centre	17.1	0.3	0.3	1.3	18.9	2%
Jute bags	12.5	0.3	0.3	4.5	17.6	2%
Other government agencies, privileged persons and organizations	19.0	1.8	1.8	6.6	29.2	4%
Other general tariff exemptions	20.6	0.2	0.2	1.4	22.3	3%
Total	**693.3**	**18.9**	**17.6**	**67.2**	**797.0**	**100%**

Source: World Bank staff calculations

[47] "Special permits" refer to exemptions that are not included in the customs law and must be individually approved by Parliament. These are divided into two categories, "pending" and "approved."

2.24 Trade-related tax expenditures have increased considerably since 2010. While data constraints are significant,[48] import-duty exemptions under the special permits and manufacturing categories appear to have risen dramatically (Table 2.8). Meanwhile, mining sector exemptions have remained relatively stable. GRA data indicate that customs exemptions (including import VAT exemptions) have increased significantly since 2013.[49]

TABLE 2.8: IMPORT DUTY EXEMPTIONS, 2010-2013 (GH¢ MILLIONS)

	2010	2011	2012	2013
Manufacturing	107.9	134.3	208.5*	187.9
Special permits pending Parliamentary approval	5	10.1	68.8*	107.2
Government agencies, privileged persons and organizations	59.7	57.8	105.5*	92.1
ECOWAS trade	36.6	48.5	89.1	92
Exemptions by Parliament	70.7	33.7	60.7	59.9
General exemptions	47.2**	42.8**	64.4**	56.4
Mining	36	47.5	65.3	49.5
The Ghana National Petroleum Corporation	52.2	32.5	42.4	31.3
The Ghana Investment Promotion Centre	16.8	26.7	18.2	17.1
Total	**432.1**	**433.9**	**722.9**	**693.4**

Source: World Bank staff calculations.
Note: *Estimated based on ratios for 2011 and 2013. **Estimated based on ratios in 2013

2.25 Between 2010 and 2013, Ghana's manufacturing sector received an average of 28 percent of all import-duty exemptions, representing a total of GH¢ 10 million in foregone revenue. Some of these exemptions are controversial and should be reviewed. For instance, Ghana continues to exempt personal automobiles, which are a finished consumer good, not an input. The rationale for this exemption is unclear, as it does not appear to serve any identifiable social or economic policy objective.

2.26 Trade-related tax expenditures are often part of a larger export-promotion strategy, and while they have proven effective in some countries, in others they have either had little impact or have given rise to perverse incentives. South Africa's Motor Industry Development Programme—which reduced import tariffs on auto parts, generating a significant increase in auto exports—is widely cited as a successful example of export-oriented tax incentives.[50] Similarly, Lesotho's application of a 15 percent corporate income tax rate to its export-oriented manufacturing sector is credited with creating tens of thousands of jobs. However, Tanzania's export incentives have created far fewer jobs, while Bolivia's use of tax credits for exporters gave rise to the phenomenon of "tourist cows," in which cattle were moved back and forth across the border in order to generate export receipts.[51] In 2000, India removed export incentives for all firms except those located in export-processing zones, and while this had little effect on sales or investment

[48] The 2012 data had significant gaps in most categories, and exemptions were estimated based on observed ratios from 2011 and 2013. This makes it difficult to compare 2012 exemptions with those of other years.
[49] Per the classification system used by Ghana's customs service, exemptions for the first eight months of 2015 reached GH¢ 1.35 billion, compared to a full-year total of GH¢ 1.2 billion in 2014 and GH¢ 1.46 billion in 2013.
[50] Madani and Mas-Guix, 2011.
[51] Africa Tax Spotlight, 2012; IMF, 2015.

behavior, a significant change in profit reporting strongly suggested that profits were being diverted to firms in export-processing zones to take advantage of their favorable tax treatment. Overall, the international experience shows that trade-related tax expenditures are most likely to succeed when they are part of a wider strategy that includes promoting competition in the domestic market and encouraging regional coordination.[52] Tax incentives tend to be most effective in countries where export industries are not dominated by a few large firms and where companies can easily operate across regional borders.[53]

2.27 The authorities should review and rationalize the exemptions regime for imports. While exemptions on final consumption items should be removed, those applied to manufacturing inputs and capital goods may be retained if they serve a clear policy purpose. Meanwhile, the special permits should be phased out, and exemptions should only be applied to entire classes of goods and services as defined in the Harmonized Standard Code. This would reduce political discretion over exemptions and minimize opportunities for abuse.

CORPORATE INCOME TAX EXPENDITURES

2.28 Corporate income tax expenditures appear to have amounted to GH¢ 93 million in 2013, or 0.1 percent of GDP, but this figure may be significantly underestimated. This estimate was based on income tax data collected from 516 companies and may not cover all relevant firms (see Annex 2.5). Beneficiaries of income tax expenditures include hotels (137), free-zone developers (104)[54], rural banks (87), cocoa-related agricultural firms, tree-crop farmers and livestock producers (64), and manufacturing companies located outside Accra and Tema (32). Free-zone developers received the largest share of income tax expenditures (GH¢ 42.3 million), followed by manufacturing companies located outside Accra and Tema (GH¢ 26.6 million) and rural banks (GH¢ 11.7 million).

TABLE 2.9: INCOME TAX EXPENDITURES IN GHANA, 2008-2013 (GH¢)

	2008	2009	2010	2011	2012	2013
Agro-Processors*	-	-	-	41,047	222,806	508,336
Companies Listed on the Ghana Stock Exchange	2,358,528	2,135,589	1,939,650	6,506,747	5,103,563	5,866,520
Exporters	419,689	255,828	490,108	479,950	439,986	609,495
Farmers*	-	6,534	6,752	720,172	3,909,142	3,943,998
Financial Institutions					1,444,653	442,362
Free-Zone Developers	5,940,149	24,592,301	28,584,758	28,775,372	35,322,115	42,333,818
Hospitality Industry	258,736	210,767	231,431	166,048	359,826	862,221

[52] James, 2007.
[53] World Bank Group, 2014.
[54] Enterprises within the free zone enclave.

Recipients of Location-Based Manufacturing Incentives	351,126	1,148,520	1,151,990	1,841,232	29,611,201	26,570,549
Mining Firms	5,551,968	4,282,666	3,752,011	42,629,765	-	-
Mining Service Providers	475,688	762,940	489,877	63,234,480		
Real Estate Firms	2,890	909,354	695,983	70,753	676,959	138,874
Rural Banks	211,816	389,407	427,823	487,381	46,041,954	11,701,015
Venture Capital Firms	410,542	1,261,902	425,461	8,964,450	2,374,077	779,779
Waste Recyclers	11,926	-	4,688	5,859	3,626	3,188
Total	**15,993,056**	**35,955,806**	**38,200,532**	**153,923,256**	**125,509,908**	**93,760,153**
% of GDP	**0.05**	**0.10**	**0.08**	**0.26**	**0.17**	**0.10**

Note: * Denotes activities for 2008-2011 estimated based on the 2012 ratio
Source: World Bank staff calculations

2.29 A trend analysis indicates that income tax expenditures peaked in 2011, then declined significantly through 2013 following the passage of new legislation. Data limitations notwithstanding, the reduction in income tax expenditures appears to have been caused in part by the removal of generous capital allowances for mining companies combined with an increase in the corporate income tax rate from 25 to 35 percent. However, due to data constraints and inconsistencies, these estimates should be treated with caution. Furthermore, it is not clear if fiscal stabilization clauses, which limit big tax changes for the mining and petroleum industries, would become applicable in specific agreements between a mining company and the government. For example, several firms that received positive tax expenditures in 2011 and 2012 did not report any tax-expenditure estimates for 2013. Moreover, in 2013, the GRA changed the methodology for calculating tax expenditures related to capital allowances (Table 2.9).

2.30 The analysis also reveals compliance problems among firms located in free zones, especially those that are still within their tax-holiday period. Many of these firms failed to file timely and complete returns, which may indicate a deliberate effort to obscure the amount of foregone revenue resulting from tax exemptions. However, analyzing the extent and causes of noncompliance is beyond the scope of this analysis. In the absence of complete data, tax expenditures are estimated by using the ratios from the previous year.

2.31 Although tax holidays have been shown to increase FDI, there is evidence that they do not boost total investment, but instead discourage long-term ventures in favor of a "race-to the bottom" among investors seeking short-term returns. Data from 40 countries in Latin America, the Caribbean, and Africa between 1985 and 2004 reveal no correlation between changes in the length of tax holidays and economic growth rates, which may imply that FDI fully displaces domestic investment.[55] Tax holidays also tend to favor short-term projects, as recipient firms

[55] IMF, 2015.

attempt to rapidly increase profits while keeping expenses low. This may delay or discourage the growth of industries with long-term capital needs.[56] Furthermore, the comparative data, especially from Africa, show downward pressure on tax rates as countries compete to offer the most favorable tax regime.[57] For these reasons many countries, including most members of the OECD have reduced or eliminated tax holidays. For instance, Mozambique replaced many of its tax holidays in 2002 with targeted incentives, such as investment tax credits, which are less costly and easier to monitor.[58]

2.32 The international experience with location-based tax incentives in Africa suggests that they frequently fail to generate a net increase in investment. Location-based incentives, including free zones and special economic zones, account for more than half of Ghana's corporate income tax expenditures. While the success of free zones in Singapore, Hong Kong, Korea, and China dramatically increased their global popularity,[59] there is little evidence that these policies have yielded similar returns in Africa.[60] Between 2004 and 2007, all free zones in Sub-Saharan Africa generated a combined 1 million jobs and just US$8.6 million in exports. In some countries, free zones proved totally ineffective. Senegal's free zones, for example, have failed to increase employment despite their substantial fiscal cost.[61]

2.33 There are two leading explanations for the inability of African free zones to match the success of those in East Asia. The first is the nascent state of the industrial sectors in most African countries. The second is flaws in the legal and institutional arrangements governing free zones.[62] These explanations are nonexclusive and may in fact be mutually reinforcing. Previous analysis by the World Bank has identified seven key weaknesses in African free zones: (i) an outdated or incomplete legal, regulatory, and institutional framework; (ii) a poor business environment; (iii) a lack of strategic planning and demand-driven policy design; (iv) infrastructure constraints; (v) inadequate free-zone management experience; (vi) policy inconsistencies; and (vii) unresolved resettlement issues.[63]

2.34 Free zones and special economic zones are also inherently vulnerable to misuse. Investors can take advantage of preferential tax treatment by establishing nominal offices in free zones or low-tax regions without moving their productive assets. Transfer pricing can occur within the domestic economy without being detected by the tax authorities, and affiliated businesses can shift their profits to whichever affiliate pays the lowest rate. Moreover, even if firms do relocate their operations to a free zone or low-tax region, they may simply be reallocating capital and employment within the domestic economy, and investors may choose to locate their businesses in free zones or low-tax regions even if these investments would have been viable outside of them. In either case, the location-based incentive would incur a net tax-revenue loss without attracting any additional investment. Indeed, free zones for exporters in Costa Rica, El Salvador, and the Dominican

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[56] *Ibid.*
[57] *Ibid.*
[58] USAID/RCSA, 2004.
[59] Between 1987 and 2007 the number of countries that had established at least one special economic zone rose by 182 percent, while the total number of such zones increased by almost 1,900 percent, from 176 to 3,500. China's free zones are estimated to have boosted FDI and economic growth by an average of 7 and 12 percent per year on average, respectively. However, similar effects have not been replicated in Africa.
[60] IMF, 2015.
[61] ActionAid, 2015.
[62] Zeng D.Z., 2015.
[63] *Ibid.*

Republic have been found to favor highly profitable projects that would likely have been implemented without tax incentives. Moreover, many projects located in free zones have been restructured over time to extend their tax benefits well beyond the timeframe policymakers intended. Finally, free zones have enabled global tax avoidance through transfer pricing between firms located inside and outside the zones.[64]

2.35 Similarly, granting preferential tax incentives to certain economic sectors can distort the allocation of productive factors and create opportunities for firms to exploit tax advantages without generating a net increase in investment or job creation. Sector-based tax incentives represent over 40 percent of Ghana's corporate income tax expenditures, and these policies are subject to several important drawbacks. Providing tax incentives to low-productivity industries and sectors can diminish the competitiveness of firms in related industries and sectors and reduce overall economic productivity.[65] Conversely, providing incentives to highly productive industries and sectors may incur substantial fiscal costs with little or no economic benefit. In addition, preferential tax incentives impose a large administrative burden on both the private sector and the tax authority, and they can multiply opportunities for tax avoidance. For example, VAT exemptions on agricultural inputs often prove difficult to administer, as many agricultural inputs can also be used in other economic activities.[66] Policymakers can address this by exempting only a narrow list of specific inputs, such as fertilizer, or by creating strict registration requirements for importers, but while these measures can greatly increase compliance and verification costs, they do not ensure that preferential incentives will prove effective.[67] For instance, a recent study in Tanzania showed that agricultural tax incentives did little to benefit the sector.[68] Furthermore, as with location-based incentives, a company involved in several sectors can move profits from one subsidiary to another to secure the best tax rate, and due to the complexity of the accounting involved, the resulting net public revenue loss would be difficult to measure or even identify.[69]

RECENT POLICY DEVELOPMENTS

2.36 As part of Ghana's ongoing fiscal consolidation program, the government has taken steps to reduce tax expenditures. The MoF has intensified its oversight in an effort to limit the use of special permits that exempt imports from customs duties and VAT. The Cabinet also amended the process for approving exemptions to include compulsory clearance by the MoF. Yet despite these positive steps, the government likely approved additional exemptions for election-related imports ahead of the general election in December 2016.

2.37 The Ghana Investment Promotion Centre is legally authorized to negotiate specific tax incentives with the approval of the MoF and the Office of the President. In the past, investors who introduced new technologies or productive systems were granted special tax incentives. However, these were negotiated without the involvement of the MoF, and as a result, their terms did not necessarily reflect the government's fiscal priorities. The center is now required

[64] IMF, 2015.
[65] USAID/RCSA, 2004.
[66] Minh, 2003.
[67] *Ibid.*
[68] USAID/RCSA, 2004.
[69] *Ibid.*

to obtain the approval of both the MoF and the Office of the President before granting any new tax incentives.

2.38 The government has also revised the system for administering import VAT exemptions in an effort to improve its transparency and integrity. Instead of filing a VAT-relief purchase order, importers are now required to pay the full tax at the port of entry before applying for a refund. While this reform has strengthened revenue collection and helped curb ineligible exemptions, the new system may impose a burden on small businesses with limited capital, especially those that had factored ex-ante exemptions into their business plans. Similarly, any significant delay in the refund process could create cash-flow problems among importers and potentially encourage informality.

CONCLUSIONS AND RECOMMENDATIONS

2.39 The international experience has shown that tax expenditures typically have a limited impact on investment and are often a source of serious fiscal and political-economic risks. Income tax expenditures, such as tax holidays, tend to attract low-margin, highly mobile forms of capital at the expense of longer-term investment. Tax expenditures targeted at low-productivity sectors can erode economy-wide productivity, while expenditures targeted to highly productive sectors are often superfluous. Because all types of tax expenditure are especially ineffective in attracting investment in the extractive industries, Ghana has discontinued its tax incentives for the mining sector (Table 2.10). It is also possible that the fiscal impact of exemptions on the mining sector have been understated because of stability clauses, which would favor capping stability clauses to a maximum of 5 years. However, the government continues to provide tax expenditures to other profitable sectors, such as banking and finance (even if limited to rural banks). These policies are clearly inefficient and should be phased out.

TABLE 2.10: TAX EXPENDITURES AND INVESTMENT INCENTIVES[70]

Investment Type	Drivers of Investment	Response to Tax Expenditures
FDI in extractive industries	Location of natural resources; political stability; complementary infrastructure	**Low**. FDI in extractive industries is driven primarily by nontax factors.
FDI in domestic consumer markets	Domestic market characteristics; household purchasing power; consumer preferences; the regulatory environment	**Low**. While tax incentives can encourage new market entrants, these incentives distort competition and reduce economic efficiency.
FDI in strategic assets	Brand characteristics and market positioning; human capital; technology; logistics capacity	**Low**. FDI is driven by the location of the strategic asset. However, lower capital-gains taxes can reduce the costs of transferring assets.
Efficiency-seeking FDI	Capital and labor costs; labor-market characteristics; public infrastructure quality; relocation costs	**High**. Intense competition among export-oriented firms creates a strong incentive to relocate production to a low-cost environment. However, in the absence of an underlying comparative advantage, efficiency-seeking FDI will remain vulnerable to more attractive tax

[70] James, 2014.

		expenditures offered by comparable countries.

2.40 Tax expenditures are especially ineffective in a poor investment climate, and efforts to improve the business environment are almost always a superior alternative to tax expenditures.[71] Ghana ranked 108 out of 190 countries in the World Bank's latest *Doing Business* report 2017, and it performed especially poorly on the dimension of trading across borders (ranked 154). Addressing weaknesses in the business environment could attract greater investment without generating the economic distortions or imposing the high fiscal costs associated with tax expenditures.

2.41 A 2013 OECD report on tax policy in Ghana provided six recommendations for enhancing the efficiency of the tax-expenditure regime, all of which remain highly relevant.[72] The OECD recommendations include: (i) evaluating the effectiveness of individual tax expenditures against their stated objectives; (ii) eliminating the most wasteful tax expenditures; (iii) establishing an electronic recordkeeping system for tax revenues; (iv) creating an electronic system for sharing information between government agencies that administer tax exemptions; (v) formalizing the process for estimating and reporting the revenue loss attributable to tax expenditures; and (vi) building the institutional capacity for thorough and accurate tax-policy analysis. The OECD report also highlighted the importance of mandating MoF approval for all exemptions, and it recommended that the procedure for granting, processing, and monitoring tax expenditures be codified in the Financial Administration Act and associated regulations.

2.42 Systematic improvements in data collection would strengthen the analytical basis for reforming tax expenditures. Accurate cost estimates are essential to effective oversight. A dedicated tax-expenditure team should be established within the MoF and charged with estimating all foregone revenues arising from tax exemptions and incentives. The authorities should ensure that tax expenditures are properly recorded on income-tax returns, and that mandatory tax filing is enforced even among firms that have no tax liability. As in all areas of tax administration, electronic data collection is preferable to manual recordkeeping.

2.43 Tax expenditures for all taxes should be routinely estimated and published as part of the annual budget process. Currently, only revenue foregone on customs exemptions are estimated and part of the budget. Creating a baseline for these estimates will require updating Ghana's supply and use tables, which date from 2004, and closing significant gaps in the data on income-tax expenditures for mining firms and free-zone developers. The new Public Financial Management Act of 2016 obligates the government to estimate the tax expenditures for all taxes as part of the budget. The government will need to build its capacity to analyze tax expenditures according to a consistent methodology rooted in international best practices.

2.44 Even without a comprehensive analysis, certain tax expenditures are plainly inefficient and should be eliminated. The government should curb the use of regressive tax expenditures, including the import-duty exemption on consumption items, such as personal vehicles. Other expenditures, including VAT exemptions, can be more effectively targeted to lower-income households or to sectors that generate positive social or economic externalities. However, providing VAT exemptions at specific levels of the value chain can distort economic incentives and create

[71] Van Parys and James, 2010.
[72] OECD, 2013.

opportunities for tax evasion. These risks must be weighed carefully against the potential benefits of VAT exemptions. If their primary objective is to increase the purchasing power of lower-income households, policymakers should consider cash transfers as a less-distortive alternative to VAT exemptions.

2.45 Ghana's system of location-based tax incentives is structurally inefficient and prone to leakages. The government should replace its existing free zones and special economic zones with a combination of private investment allowances and targeted public investment in infrastructure and human capital. Policymakers should continue striving to improve the business climate, which could boost investment and enhance competitiveness at a far lower fiscal cost than location-based incentives.

2.46 The government should replace the case-by-case system for customs-duty exemptions with a standard set of exemptions by product. This would reduce the administrative burden involved in granting and monitoring duty exemptions, and it would limit opportunities for rent seeking. Goods that are clearly intended for final consumption should not receive duty exemptions. Instead, exemptions should be reserved for goods that generate positive externalities, such as medical supplies, or that improve the productive capacity of the local economy, such as machinery, equipment, and capital goods that are not available locally. Dual-use items, such as commercial vehicles and building materials, should be subject to a single revenue-neutral tariff.

2.47 Finally, the government should explore alternative strategies for achieving the policy objectives of the tax-expenditure regime. Regulatory reform, public sector capacity-building, and other measures designed to improve the business climate are likely to prove far more effective in attracting investment and spurring the growth of new economic sectors. The government should also consider offering subsidies and other nontax incentives to industries and sectors that produce positive social or economic spillover effects.

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ANNEX 2.1: CALCULATING TAX EXPENDITURES

Three methods are commonly used to calculate tax expenditures:

- The foregone-revenue method estimates the fiscal loss incurred by the government as a result of tax expenditures. This is a static analysis that does not account for changes in taxpayer behavior caused by changes in tax policy.

- The revenue-gain method is similar, but it includes the dynamic effects of changes in tax policy. Lowering the tax rate on a certain good alters the price signals faced by consumers, while exempting some forms of economic activity shifts the incentives of firms and investors. The revenue-gain method attempts to estimate how the behavioral changes induced by tax expenditures affect the government's revenue position. However, accurately estimating the impact of these changes requires especially extensive and reliable data.

- The outlay-equivalent method calculates tax expenditure in terms of the amount of direct spending necessary to generate the same fiscal benefit to taxpayers. This would differ from forgone revenue in cases where direct spending is itself taxable.

TABLE 2.11: STEPS FOR CALCULATING TAX EXPENDITURES

Tax expenditure type	Calculation
Tax exemption (e.g. tax holiday)	Gross income of companies that qualify for tax holiday * effective tax rate *T*
Investment Allowances (%)	Investment that qualifies for allowance * Allowance * *T*
Investment Tax Credit (%)	Investment that qualifies for credit * Credit
Reduced tax rate R	Gross income of companies that qualify for the reduced tax rate**(T–R)*
Accelerated depreciation	Deductions for the current year – income inclusion from previous deferrals for the current year
Import tax exemptions	Value of imports qualifying for the import tax exemption * import tax

Source: World Bank Staff

ANNEX 2.2: TAX EXPENDITURE ESTIMATES IN THE OECD 2013 REPORT

There are notable differences between the estimates of tax expenditures shown in the OECD report and this report. Except in the case of Customs data, these differences are due to differences in methodology and possible data errors.

TABLE 2.12: COMPARISON OF REPORTED TAX EXPENDITURES BY SOURCE

	Tax Expenditure Committee	OECD (2013)	World Bank (2011)	Possible Reasons for Divergence
Direct Taxes	0.16%	4.23%	0.1%	Data issues and changes in methodology by the Tax Committee between 013 and 2015
Indirect Taxes	1.07%	1.07%	4.2%	OCED report uses GRA refund data to estimate Tax Expenditure while The World Bank report uses Supply & Use tables and Import data
Customs	1.38%	0.83%	0.9%	Import VAT was removed from the customs Data to measure the tax expenditure in this report. However, it is not clear if this was done in the OECD report as Ghana Customs typically bunches them together

Source: OECD, 2013 and World Bank staff calculations

The huge difference in the estimates for direct taxes requires some explanation. When compared to the data prepared by the OECD in their 2013 report, it is clear that tax expenditures under direct taxes are much higher than the estimates that was provided by the Tax Expenditures Committee in preparing in this report. It appears that the data for estimating the tax expenditures for companies listed on the Ghana Stock Exchange was erroneous. These companies benefited from a reduction in the corporate income tax rate of 25% (regular rate) to a listed corporate income tax rate of 22%. Hence, if the tax expenditure under this category is GH¢2.5 billion, the equivalent income of these companies should be about GH¢83 billion (3 percentage point decrease applied on an income of GH¢83 billion results in a tax expenditure of GH¢2.5 billion). Out of the 41 companies listed on the Ghana Stock Exchange, none are large enough to report such profits[73]. For example, one of the biggest of these companies (in terms of market capitalization) is Tullow Oil which in 2011 generated total sales of US$1.9 billion (GH¢3.2 billion) and global profits of US$1 billion (GH¢2 billion).[74] This indicates that the data used for the estimation is inaccurate.

In the case of indirect taxes, the OECD report uses data provided on refunds on VAT relief for estimating the tax expenditure. However, VAT tax expenditure may arise outside the VAT relief process. For example, if any exemption is provided automatically on imports, the VAT relief may underestimate the tax expenditure. Further, if some of the supplies of the enterprise is exported then a VAT relief does not constitute a tax expenditure. Lastly, a VAT relief may apply to a particular supply but some of the revenue lost could be recovered in subsequent sales down the VAT chain and hence the tax expenditure using VAT reliefs may be an overestimate. It is for this reason that this report uses a Supply and Use table to capture the interaction between the sectors which has implications for tax expenditure under VAT.

[73] Ghana Stock Exchange. "Profile of listed companies". Accessed at http://www.gse.com.gh/index1.php?linkid=46
[74] Tullow Oil plc. "2011 full year results" (14 March 2012). Accessed at http://www.tullowoil.com/Media/docs/default-source/3_investors/2011-tullow-full-year-results-report.pdf?sfvrsn=2

ANNEX 2.3: CUSTOMS EXEMPTIONS (2014 AND 2015)

The customs exemptions (including VAT) is likely to have increased significantly in 2015. By employing a different classification as used by GRA Customs for reporting (Table 2.13) customs exemptions for the first eight month increased to GH¢1.35billion compared to a full year total of GH¢ 1.2 billion in 2014 and GH1.46 billion in 2013. Table 12 cannot be compared to Table 11 because the categories do not match and the data in Table 11 was not based on actual import data prepared by the Customs Department. Table 11 was derived firm level data collected form GRA Customs.

TABLE 2.13: CUSTOMS: EXEMPTIONS (INCLUDING RECOVERED VAT), 2014-AUGUST 2015

Regime/custom procedure	Revenue exempted in 2014	% of GDP	Revenue exempted in 2015	% of GDP
Ghana National Petroleum Corporation	127.6	0.11%	441.5	0.33%
Government agencies, privileged persons and organizations	271.8	0.24%	260.2	0.19%
Ghana Investment Promotion Centre	64.2	0.06%	58.3	0.04%
Other exemptions	151.6	0.13%	163.9	0.12%
ECOWAS exemptions	101.2	0.09%	72.6	0.05%
Parliamentary exemptions	214.2	0.19%	173.2	0.13%
Special permits	285.4	0.25%	184.2	0.14%
Total	**1,216.0**	**1.07%**	**1,353.9**	**1.01%**

Source: Ghana Customs Authority

ANNEX 2.4: SUMMARY OF THE PRINCIPAL TAXES IN GHANA

TABLE 2.14: SUMMARY OF THE PRINCIPAL TAXES IN GHANA

Type of Tax	Rates	Remarks
A. Income Taxes		
A1. Corporate tax	25%	Different Rates apply as a result of tax incentives
A2. Personal Income Tax	Progressive rates 0%, 5%, 10%, 17.5% and 25%. The 5% rate is applicable at GH¢1,582 (or as adjusted) and the maximum rate applies for Chargeable Incomes exceeding GH¢31,680 or as adjusted.	In the case of employees, the tax (PAYE) is withheld by the employer and it is the final tax paid if the employees do not have income other than from employment.
A3. Vehicle Income Tax (VIT)	Tax collected from operators of commercial vehicles at fixed rates depending on type of vehicle.	In lieu of Income Tax, tax is paid by buying stickers on a quarterly basis.
A4. Tax Stamp (Income Tax on informal businesses)	Tax collected from small businesses at a fixed rate depending on the type of business, size and turnover.	In lieu of Income Tax. Tax is paid by buying stickers on a quarterly basis.
A5. Withholding Tax on dividend	8% (general rate)	This is a final tax. Separate rates apply under tax treaties

		with other countries.
A6. Withholding Tax on Interest	8% (general rate)	This is a final tax for non-residents but not in the case of residents. Separate rates apply under tax treaties with other countries.
A7. Withholding Tax on Income of Non-Residents/Branch Tax	10%	
A8. Social Security Taxes	13% for employers, 5.5% for employees	
A9. Carry Forward of Losses	No Carry forward of losses are allowed except in the case of farming, mining, agro-processing, tourism, ICT and manufacturing exporters where it is 5 years	Indefinite carry forward applied in upstream oil and gas industry
A10. Tax on Capital Gains	15%	Capital Gain arising from the sale of Agricultural land and certain trading stock and depreciable assets are exempted.
B. Value Added Tax	15%	
C. National Health Insurance Levy	2.5% of the VAT base	
D. Taxes on Import		
D1. Customs Duty	0% to 20% of CIF	VAT at 17.5% is charged on imports which is credited against VAT paid on sale
D2. Processing Fee	1% of CIF	CIF – Cost, Insurance and Freight
D3. Inspection Fee	1% of CIF	
D4. Network charge	0.45% of FOB	FOB – Freight on Board
D5 .EDIF Levy	0.5% of CIF	
D6. ECOWAS levy	0.5% of CIF	
D7. Excise Duty	10% to 17.65% of ex-factory price	Applied to beer, spirits and tobacco products
E Property Tax	Various rates depending on area and by use (residential/ commercial). In Accra the rates vary between 0.5% to 3% of the value of the property	
F. Stamp Duty and Transfer Duty	Levied at different flat rates and percentage of consideration for a wide range of instruments and documents. 0.5% on transfer of property	
G. Other Taxes		
H. Mineral Royalty	5%	

I. Gift Tax	5%	
J. Rental tax	15% of gross amount earned in rent	This is a final tax
K. Communications Service Tax	6% on the amount paid	Paid by users of Electronic Communication Services

Source: GRA and PWC and KPMG Tax Guides

ANNEX 2.5: TAX EXPENDITURES IN 2013 UNDER THE INCOME TAX ACT

TABLE 2.15: TAX EXPENDITURES IN 2013 UNDER THE INCOME TAX ACT

Activity	Tax Incentive	Number of Companies for which data was available in 2013	Tax Expenditure in 2013 (GH¢)
Cocoa farming	Indefinite Tax Holiday	64	3,943,998
Farming tree Crops	10 year Tax Holiday		
Livestock (other than cattle), fish farming and cash crops	10 year Tax Holiday		
Cattle farming	5 year Tax Holiday		
Agro-processing	Indefinite Tax Holiday if located in the Northern, Upper East and Upper West Regions. 5 year Tax Holiday followed by lower rate for five years - 20% rate if located in Accra/Tema; 10% in other regional capitals.	22	508,336
Real Estate – construction for sale or letting out of low-cost affordable residential premises	5 year Tax Holiday	17	138,874
Free Zone developers and enterprises	The general incentive is a 10 year Tax Holiday followed a rate not higher than 8% after that. This rate could is 0% for companies located outside regional capitals and in the Northern, Upper East and Upper West regions. In other cases, a 10 year Tax Holiday followed 4% rate for Agro processing companies in Tema and in regional capitals; 4% for Garment and textile manufacturing companies; 5% for manufacturing companies outside regional capitals.	104	42,333,818
Venture Capital Financing Company	10 year Tax Holiday	5	779,779
Rural Banks	10 year Tax Holiday followed by 8% rate	87	11,701,015
Waste Processing and Recycling	7 year Tax Holiday	6	3,188
Companies listed on the Ghana Stock Exchange	22% rate for first three years (regular rate 25%)	18	5,866,520
Manufacturing companies other than Accra/Tema	18.75% in regional capitals and 12.5% elsewhere	32	26,570,549
Hotels	20%	137	862,221
Financial institutions – income derived from loans to farming enterprises and leasing enterprises	20%	11	442,362
Companies engaged in Non-traditional exports	8%	13	609,495
Total for 2013			93,760,153

Source: MoF Tax Expenditure Committee

ANNEX 2.6: TAX EXPENDITURES ON VAT ON DOMESTIC VALUE ADDITION

TABLE 2.16: TAX EXPENDITURES ON VAT ON DOMESTIC VALUE ADDITION

Sector	Tax expenditure (in GH¢ Million)	Tax expenditure (% of GDP)	Assumption of output by registered businesses
Crops and Cocoa	1012.7	1.084	50%
Agro-Processing	936.5	1.003	100%
Transport & Logistics	779.9	0.835	86%
Education	344.2	0.368	100%
Health	223.6	0.239	100%
Water	198.1	0.212	100%
Forestry and Logging	116.3	0.124	53%
Tourism	109.8	0.118	88%
Electricity	99.0	0.106	100%
Livestock	60.4	0.065	50%
Manufacturing	59.0	0.063	100%
Trade	20.9	0.022	90%
Fishing	15.3	0.016	10%
Mining	11.9	0.013	100%
Services	0.6	0.001	88%
Government	0.0	0.000	100%
ICT	0.0	0.000	100%
Finance	-18.1	-0.019	100%
Construction and Real-Estate	-304.2	-0.326	90%
Grand Total	**3665.8**	**3.9**	

Source: World Bank staff calculations

CHAPTER 3 MANAGING THE PUBLIC SECTOR WAGE BILL TO MAINTAIN FISCAL STABILITY

Ghana's public sector wage bill has grown rapidly since 2010 and is now the largest component of public spending. The wage bill rose from 6.9 percent of GDP in 2009 to 11.4 percent in 2012, then fell slightly to 7.9 percent in 2015. Systemic weaknesses in the collective bargaining process for public employees, rising allowances in the education and health sectors, and an expanding number of high-level staff all contributed to the growth of the wage bill, and a substantial increase in the average wage rate accompanied the introduction of the SSSS in 2011. The government adopted measures to contain and reduce the wage bill as part of the fiscal consolidation program launched in 2014, but to date these efforts have yielded only mixed results.

The government can reduce the wage bill by limiting the growth of average wage rates while maintaining the current hiring freeze and allowing attrition to decrease the size of the public-sector workforce. Addressing payroll irregularities, curbing the use of allowances, and eliminating cash payments could improve the efficiency of wage-bill management and accelerate the decline of personnel spending as a share of total public expenditures. Better wage modeling and a functional review of service-delivery arrangements could help policymakers identify further areas for fiscal savings. Additional efforts to stimulate private-employment growth and narrow the public-sector wage premium could ease public employment pressures over the medium-to-long term. Expanding the range of employment opportunities outside the public sector will become increasingly crucial as the share of workers with tertiary education continues to rise.

BACKGROUND

3.1 **Ghana's public sector wage bill has increased substantially since 2010, and it now plays a major role in the country's fiscal performance.**[75] A combination of nominal wage growth and rising public employment levels put the wage bill on an unsustainable upward trajectory. Public sector wages surpassed capital spending in 2010 to become the government's single largest expenditure item, accounting for about 8 percent of GDP and more than half of total tax revenue (Table 3.1). The wage bill is also a major source of expenditure overruns.

[75] Unless otherwise stated, "the wage bill" refers to public sector wages, salaries, and allowances, including deferred wage payments recorded in the budget. In this context, the public sector includes the central government as defined in the 1992 Constitution, and the public sector workforce comprises workers in all branches of the public administration, including noncommercial public enterprises. As a result, the wage data used in this analysis are slightly more comprehensive than those included in the budget.

TABLE 3.1: THE PUBLIC SECTOR WAGE BILL AND WORKFORCE, 2008-2016

	2004-2009 Average	2010	2011	2012	2013	2014	2015	2016*
Wage Bill								
% of Total Government Revenue	20.6	38.5	42.1	59.9	54.2	46.1	42.2	37.1
% of GDP	4.9	6.7	8	11.4	9.3	8.4	7.9	7.2
Wages & Salaries		6.9	7.6	8.9	8.9	8.3	7.6	7.2
Allowances		0.5	0.9	1.8	1.6	1.6	1.4	1.6
Deferred wages		0.0	0.6	2.5	0.9	0.5	0.6	0.3
Public Sector Employment								
Total (000s)	358	419	450	480	656	640	654	641
Ministries & Departments	358	419	450	480	510	497	520	507
Subverted Agencies					146	143	134	134
% of Labor Force		5.4	5.6	5.8	5.9	5.6	5.7	
% of Population	1.5	1.8	1.9	1.9	2.6	2.4	2.4	

Note: Data are from October 2016
Source: Ghana Ministry of Finance

3.2 **A large and widening wage gap between the public and private sectors raise the economy-wide reservation wage for educated workers and encourages them to wait for job openings in the public sector rather than pursue opportunities in the private sector.** Public sector wage growth outpaced growth in almost all other sectors between 2006 and 2013. Data from the 2005/06 and 2012/13 Ghana Living Standards Surveys (GLSS)[76] show that public sector workers consistently earned higher average wages than those in any other employment category, and the public sector wage premium increased sharply between the two surveys. In 2006, the median wage in the public sector was 25 percent higher than the median wage in the private sector, but by 2013 the median public sector wage was a full 125 percent higher (Table 3.2).

Table 3.2: Differences in Hourly Wages by Sector (GH¢)

	2005/06		2012/13	
Sector	Mean	Median	Mean	Median
Public	0.5	0.5	4.0	3.6
Private	0.4	0.4	2.3	1.6
Agriculture	0.2	0.2	1.3	1.0
Other	0.3	0.2	2.0	1.4

Source: Calculations based on GLSS5 and GLSS6.

3.3 **The rapid growth of the wage bill reflects long-term trends in public employment dynamics and public sector wage rates.** The wage bill rose from 3.9 percent of GDP in 2000 to

[76] Ghana Statistical Service (GSS). 2006 and 2013. 'Ghana Living Standards Survey'. The 2005/06 GLSS sampled 39,001 respondents between the ages of 15 and 65, and the 2012/13 GLSS sampled 19,974.

4.7 percent in 2004, 6.6 percent in 2008, and 11.4 percent in 2012.[77] As the size of the public sector workforce grew from 371,000 in 2000 to 487,000 in 2008, the wage bill expanded from less than a third of public revenue to well over half. By 2015, the size of the public sector workforce had reached an estimated 519,000. Its growth was driven largely, albeit not exclusively, by the public education and health sectors. By 2011, Ghana's public sector workforce was large by regional standards. However, rising wages in the education and health sectors intensified pressure on the wage bill (Table 3.3). Meanwhile, individual remuneration and allowances increased across the public administration, particularly in agencies financed from the Consolidated Fund. Individual remuneration in these agencies grew seventeen-fold, and allowances, which more than doubled, now exceed the median salaries of workers in other branches of the public sector.

TABLE 3.3: HOURLY WAGES ACROSS DIFFERENT BRANCHES OF THE PUBLIC SECTOR (GH¢)

	2005/06		2012/13	
	Mean	Median	Mean	Median
Education	0.6	0.6	4.8	4.4
Health	0.5	0.5	3.9	3.5
Public Administration and Defense	0.5	0.5	3.7	3.5
Other	0.5	0.4	3.0	2.5

Source: Calculations based on GLSS5 and GLSS6.

3.4 **The implementation of the SSSS was intended to restore equity in the pay structure, reduce distortions and disparities, and harmonize wage negotiations.** However, these goals have been only partially achieved, while the wage bill has ballooned to unsustainable levels. Since the introduction of the SSSS, wage dispersion increased both between the public and private sectors and within different branches of the public sector (Table 3.4). The largest wage variations are observed in the public administration and health sectors, while the education sector displays the smallest wage variations.

TABLE 3.4: WAGE DISPERSION WITHIN DIFFERENT BRANCHES OF THE PUBLIC SECTOR (GH¢)

	2005/06			2012/2013		
	Standard deviation	Variance	Coefficient of Variation	Standard deviation	Variance	Coefficient of Variation
Education	0.3	0.1	0.5	2.8	7.6	0.6
Health	0.3	0.1	0.6	2.8	7.8	0.7
Public Administration and Defense	0.2	0.0	0.4	2.5	6.3	0.7
Other	0.3	0.1	0.6	2.3	5.4	0.8

Source: Calculations based on GLSS5 and GLSS6

THE IMPLEMENTATION OF THE SSSS

3.5 **The wage bill increased rapidly in the wake of the 2011 public payroll reforms, which included the introduction of the SSSS.** In a 2015 report, the IMF noted that wages and salaries

[77] Joint Review of Public Expenditure and Financial Management, October 2011.

doubled as a share of GDP between 2000 and 2014, and concluded that, "the wage bill has been a major source of expenditure pressure in Ghana. The introduction of the SSSS in 2010 led to a substantial increase in employees' compensation as almost all public servants' salaries were increased for several years in a row, while delays in moving staff to the new salary structure resulted in large arrears as well."[78]

3.6 **The SSSS is a graduated salary scale encompassing all public sector workers.** The new system was designed to address the widening disparity between staff in different branches of the public service by establishing a uniform pay structure under which comparable positions would receive similar compensation. Reducing wage diffusion was also intended to simplify payroll management, harmonize salary negotiations, and help policymakers contain the growth of the wage bill. Finally, the SSSS included a performance component meant to link salary increases to the effective execution of professional responsibilities.[79] In cases where performance cannot be measured objectively and consistently, staff may move up the scale based on seniority or other factors.[80]

3.7 **The SSSS was intended to consolidate and rationalize the numerous ad hoc personnel management measures adopted by successive governments.** Years of piecemeal reforms and narrowly conceived policies had resulted in an increasingly complex and inconsistent public payroll structure that distorted incentives, created conflicts of interest, and contributed to the unconstrained growth of the wage bill, leading to a widespread perception that the elected government was not fully in control of the public administration.[81]

3.8 **According to the government's original strategy, the SSSS was to be implemented through five annual phases between 2010 and 2014.** However, the implementation process remained incomplete as of end-2016. Of its initial objectives, only the goal of harmonizing and rationalizing category 2 and 3 allowances has been fully achieved (Box 3.1). All other SSSS components are at various stages of implementation. These include (i) designing the SSSS and negotiating its pay structure; (ii) moving all public sector workers into the SSSS; (iii) conducting periodic labor market surveys to identify skills gaps in the public sector; (iv) determining market premiums and other incentives to attract workers with the necessary skills; (v) monetizing category 4 allowances; and (vi) linking pay to productivity.[82]

BOX 3.1: CATEGORIES OF ALLOWANCES BEFORE THE SSSS

Category 1: Allowances related to normal job responsibilities. These include risk allowances and other allowances associated with the execution of professional duties. These allowances were abolished as part of the implementation of the SSSS.

Category 2: Benefits and allowances arising from special circumstances. These include acting allowances for staff who are temporarily filling vacant positions, grants for staff who are being transferred between locations, reimbursements for equipment purchases, and overtime compensation. These benefits and allowances were standardized under the SSSS.

[78] IMF, 2015: p.5.
[79] Republic of Ghana, 2009.
[80] Armstrong and Brown, 2001; Armstrong and Murlis, 2005; Armstrong, 2009.
[81] *Modern Ghana*, 2007.
[82] Republic of Ghana, 2009.

Category 3: Allowances and benefits related to staff welfare. These include medical and funeral grants, allowances for the purchase of basic necessities during periods of personal or family hardship, and compensation for books and other professional development materials. These allowances were to be standardized under the SSSS, but this process remains incomplete.

Category 4: Allowances and benefits associated with top management positions. These include allowances for accommodations, utilities, vehicles and fuel, and personal assistants and domestic help. These allowances were to be abolished as part of the implementation of the SSSS and monetized as personnel emoluments for eligible staff. These measures were intended to facilitate budget management and curb the wasteful use of allowances, but they have yet to be fully implemented.

All benefits, allowances, and other terms of service are negotiated separately between the Fair Wages and Salaries Commission (FWSC) and labor representatives for each of the approved service classifications.

Source: Fair Wages and Salaries Commission, 2016

3.9 **During the four years following the introduction of the SSSS, base pay increased by 71 percent, rising from GH¢ 1,108.08 in 2010 to GH¢ 1,898.55 in 2014**, **but due to high inflation rates during the period base pay increased by only 12 percent in real terms.** A 19 percent real increase between 2010 and 2012 was followed by a 6 percent decline between 2012 and 2014 (Table 3.5). This decline accelerated in 2015 due to inflation and the depreciation of the Ghanaian cedi against the US dollar, a trend that continued through 2016.[83]

TABLE 3.5: WAGE DYNAMICS UNDER THE SSSS, 2010-14

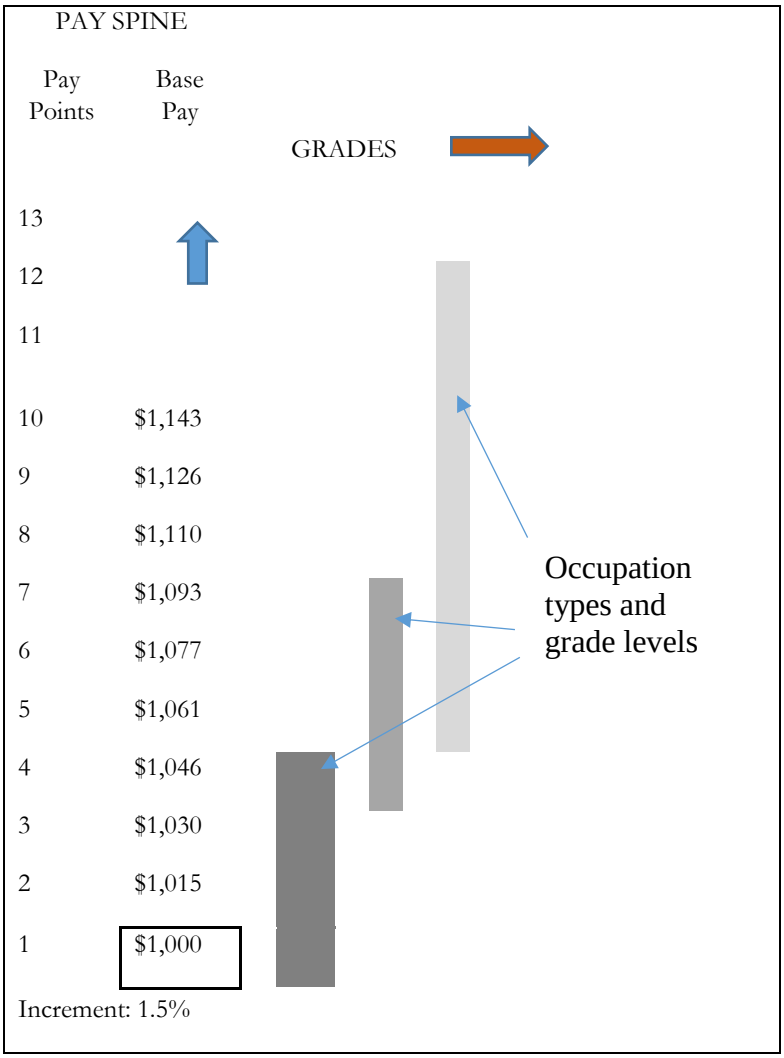
Year	Base Pay (GH¢)	Increase (%)	Inflation (Average)	Real Wages Index
2010	1,108			3.29
2011	1,330	20	8.7	3.63
2012	1,569	18	8.5	3.92
2013	1,726	10	11.7	3.87
2014	1,896	10	15.7	3.68
2015	1,950	13	15.4	

Source: Baah, 2015.

3.10 **The SSSS was designed to consolidate a highly fragmented public sector pay structure.** Prior to 2006, the public sector included 18 different compensation regimes, each with its own collective bargaining arrangements, which resulted in a highly unequal distribution of wages. Importantly, the bargaining power of different branches of the public service not only influenced the wages of sector-specific employees, such as teachers or nurses, but also those of general service and administrative staff. For example, because the health sector had negotiated an especially generous compensation package, vehicle drivers in the health sector were paid substantially more than drivers in other sectors. Under the SSSS, these 18 compensation regimes would be consolidated into a single pay scale, and all public employees would be classified according to a uniform system of occupational grades, with each grade's compensation determined by its position on the pay scale (Figure 3.1).

[83] *Trading Economics*, 2016; Bloomberg, 2014; GhanaWeb, 2016a.

FIGURE 3.1: DIAGRAM OF A MODEL SSSS SYSTEM



3.11 **However, the original goals of the SSSS were compromised by revisions to its design and by its incomplete implementation.** In a conventional SSSS, all jobs are classified into occupational grades using a standard job-evaluation methodology. Each grade is matched to a pay range on a single scale (or "spine") at a level comparable to what is offered by the private sector. That range is fixed in percentage terms. Collective bargaining focuses on determining the lowest point of the pay range, and whenever it changes, the rest of the range is adjusted accordingly. The SSSS design adopted by the Ghanaian government differed from this model in several important respects. Rather than establishing a single spine that was independent of occupational grades, the government adopted a combined pay/grade grid structure very similar to the one that had been in place prior to 1997.[84] Instead of occupational grades, all public employees are now classified according to a grid, which allows for overlaps between lower and upper levels. When annual increments take employees past a "crossover" point, they can move up multiple steps to maintain pay progression, resulting in minor anomalies.

[84] The earlier system was known as the Ghana Universal Salary Structure, or GUSS.

3.12 **While the SSSS has reduced disparities in compensation, it has failed to equalize pay across different branches of the public service or maintain parity with the private sector.** Consolidating collective bargaining was a major achievement: as all government employees are now covered by a single wage-negotiation process, no single group can obtain significantly better terms than their peers. However, without a system of occupational grades linked to specific pay ranges, it is difficult to determine whether compensation is equal across the public service or comparable to that offered by the private labor market. The continued payment of substantial allowances exacerbates this problem. Furthermore, a poorly executed evaluation process has resulted in a standardized set of job titles that obscures important differences in rank, and titles such as assistant director, director, and chief director do not consistently reflect specific levels of administrative authority.

3.13 **The pay grid that underpins Ghana's SSSS does not provide adequate information to ensure equal pay for equal work.** The pay grid does not accurately reflect organizational needs or clearly distinguish between different occupations (Table 3.6). When a position is included in the SSSS, it is assigned to a starting point on the grid. However, the position is not bound to a specified pay range or subject to limits on incremental pay raises. As a result, there is no mechanism to ensure that workers with the same type of jobs receive similar levels of compensation.

TABLE 3.6 GHANA'S SINGLE-SPINE SALARY STRUCTURE (GH¢ PER YEAR)

Level	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13	Step 14	Step 15
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L25	42,642.23	43,367.15	44,104.39	**44,854.16**	45,616.68	46,392.17	47,180.83								
L24	37,262.52	37,895.99	38,540.22	**39,195.40**	39,861.72	40,539.37	41,228.54	41,929.43							
L23	32,561.52	33,115.06	33,678.02	**34,250.55**	34,832.80	35,424.96	36,027.19	36,639.65							
L22	28,453.59	28,937.30	29,429.23	**29,929.53**	30,438.33	30,955.78	31,482.03	32,017.22							
L21	24,863.91	25,286.59	25,716.47	**26,153.65**	26,598.26	27,050.43	27,510.29	27,977.96							
L20	21,363.91	21,727.10	22,096.46	22,472.10	**22,854.13**	23,242.65	23,637.77	24,039.61	24,448.29						
L19	18,049.75	18,356.60	18,668.66	18,986.03	**19,308.79**	19,637.04	19,970.87	20,310.38	20,655.65						
L18	16,590.77	16,872.81	17,159.65	17,451.36	**17,748.04**	18,049.75	18,356.60	18,668.66	19,896.03						
L17	15,249.72	15,508.96	15,772.61	16,040.75	**16,313.44**	16,590.77	16,872.81	17,159.65	17,451.36						
L16	13,552.36	13,782.76	14,017.06	14,255.35	14,497.69	**14,744.15**	14,994.80	15,249.72	15,508.96	15,772.61	16,040.75				
L15	12,043.94	12,248.68	12,456.91	12,668.68	12,884.04	**13,103.07**	13,325.83	13,552.36	13,782.76	14,017.06	14,255.35				
L14	10,703.40	10,885.36	11,070.41	11,258.61	11,450.00	**11,644.65**	11,842.61	12,043.94	12,248.68	12,456.91	12,668.68				
L13	9,512.07	9,673.78	9,838.23	10,005.48	10,175.57	**10,348.56**	10,524.48	10,703.40	10,885.36	11,070.41	11,258.61				
L12	8,453.34	8,597.05	8,743.20	8,891.83	9,042.99	**9,196.72**	9,353.07	9,512.07	9,673.78	9,838.23	10,005.48				
L11	7,512.45	7,640.16	7770.05	7,902.14	8,036.47	**8,173.09**	8,312.04	8,453.34	8,597.05	8,743.20	8,891.83				
L10	6,676.29	6,789.78	6,905.21	7,022.60	7,141.98	**7,263.40**	7,386.88	7,512.45	7,640.16	7,770.05	7,902.14				
L9	5,933.19	6,034.06	6,136.64	6,240.96	6,347.05	**6,454.95**	6,564.69	6,676.29	6,789.78	6,905.21	7,022.60				
L8	5,272.81	5,632.44	5,453.60	5,546.32	5,640.60	**5,736.49**	5,834.01	5,933.19	6,034.06	6,136.64	6,240.96				
L7	4,685.92	4,765.58	4,846.60	4,928.99	5,012.78	**5,098.00**	5,184.67	5,272.81	5,362.44	5,453.60	5,546.32				
L6	4,164.36	4,235.16	4,307.15	4,380.37	4,454.84	**4,530.57**	4,607.59	4,685.92	4,765.58	4,846.60	4,928.99				
L5	3,578.16	3,638.99	3,700.85	3,763.77	3,827.75	3,892.82	3,959.00	**4,026.30**	4,094.75	4,164.36	4,235.16	4,307.15	4,380.37	4,454.84	4,530.57
L4	3,074.48	3,126.74	3,179.90	3,233.96	3,288.93	3,344.84	3,401.71	**3,459.54**	3,518.35	3,578.16	3,638.99	3,700.85	3,763.77	3,827.75	3,892.82
L3	2,641.69	2,686.60	2,735.28	2,778.72	2,825.96	2,874.00	2,922.86	**2,972.55**	3,023.08	3,074.48	3,126.74	3,179.90	3,233.96	3,288.93	3,344.84
L2	2,269.83	2,308.42	2,347.66	2,387.57	2,428.16	2,469.44	2,511.42	**2,554.12**	2,597.54	2,641.69	2,686.60	2,732.28	2,778.72	2,825.96	2,874.00
L1	1,950.32	1,938.47	2,017.19	2,051.49	2,086.36	2,121.83	2,157.90	**2,194.58**	2,231.89	2,269.83	2,308.42	2,347.66	2,387.57	2,428.16	2,469.44

Unshaded =	Low
Bold =	L/H
Shaded =	High

Note: This table reflects the pay structure effective as of January 1, 2015

3.14 **Relatively high public sector wage levels, especially for low-skilled workers, contribute to inflationary pressures and distort labor-market incentives.** Excessively generous compensation in the public sector can increase reservation wages economy-wide, compelling private firms to boost their own wages or face a shortage of appropriately skilled workers. In Ghana, public sector workers at senior levels appear to be remunerated at levels comparable to those of the private sector, but compensation for less-skilled workers appears to be significantly higher (Table 3.7). This observation is supported by evidence of "queueing" for public sector employment, including by workers with tertiary education, who already face limited opportunities in Ghana's small formal sector. There are also reports that teachers have been willing to work without remuneration for two years or more while their files are being processed and added to the public payroll, underscoring the desirability of public sector employment.[85]

TABLE 3.7: PUBLIC AND PRIVATE SECTOR WAGE RATES IN GHANA

	Average pay per month		Median pay per month		Ratio Of means	Ratio Of medians	Number of workers (thousands)		Wage bill (GH¢ billions)	
	Public sector	Formal private sector	Public sector	Formal private sector			Public sector	Formal private sector	Public sector	Formal private sector
Managers	1258	1117	900	900	1.1	1	32	25	0.5	0.3
Professionals	879	1068	700	750	0.8	0.9	34	55	0.4	0.7
Health	939	769	800	900	1.2	0.9	38	5	0.4	0.1
Education	1280	385	700	200	3.3	3.5	187	53	2.9	0.2
Technical	721	612	650	400	1.2	1.6	61	39	0.5	0.3
Clerical	1031	471	450	250	2.2	1.6	95	187	1.2	1.1
Unskilled	868	514	375	300	1.7	1.3	78	205	0.8	1.3
Total	1057	577	609	577	1.8	1.1	525	570	6.7	3.9

Source: Ghana Statistical Service, Ghana Living Standards Survey 6

3.15 **The SSSS compensation structure does not reflect rates in the private sector.** Without systematic and rigorous pay surveys, public sector compensation cannot be benchmarked against the private sector. Moreover, such surveys would not be reliable in the absence of occupational pay grades based on clearly defined professional responsibilities. Under a model system, lower-level staff should be compensated at rates close to those prevailing in the private sector. This helps ensure an adequate supply of qualified civil servants while minimizing the distortive effect of public sector wages on labor market incentives. However, high-level public employees should be paid somewhat less than their private sector counterparts to reflect the greater job security, better training opportunities, guaranteed pensions, and other non-monetary benefits of public sector employment.

[85] This information is based on interviews with officials at the Ghana Education Service.

THE COVERAGE OF THE SSSS

3.16 **The SSSS was intended to cover all of the public service institutions listed in Article 190 of the 1992 Constitution that are paid from the Consolidated Fund.**[86] It was also designed to include public non-commercial corporations and all public services established by the Constitution or the Parliament.[87] In an effort to address one of the problems that hampered the implementation of the previous public sector compensation regime, the Ghana Universal Salary Structure, participation in the SSSS was mandated for all eligible public service institutions. However, some of these institutions have yet to adopt the SSSS, including the FWSC, the Ghana Audit Service, the Parliamentary Service, the Judicial Service, the GRA, and the Bureau of National Investigations.

3.17 **Some of the remaining institutions may eventually adopt the SSSS, while others will maintain their own salary structures due to their unique circumstances.** For example, the FWSC was established in 2007, one year after the job evaluation surveys and initial processes for the SSSS were conducted. It is not expected to adopt the SSSS, as its oversight role in the public payroll system could create conflicts of interest if its own staff were to be graded and placed on the grid. Similarly, the Bureau of National Investigations has not been incorporated into the SSSS due to its role in investigating public corruption, which requires a significant degree of administrative independence.[88] Other exceptions include the Audit Service,[89] the Judicial Service, and the Parliamentary Service, as their salaries and conditions of service are dictated by the Constitution or other legislation. In addition, the GRA's governing legislation[90] stipulates that it shall retain no more than 3 percent of its annual net revenue, which is inconsistent with its adoption of the SSSS. Finally, 37 public corporations[91] have not been migrated to the SSSS largely because of their specific organizational structures and own-source revenue capacity.

3.18 **These institutions have refused to adopt the SSSS on the grounds that their legal instruments are not aligned with the new system.** However, this contention is at odds with Section 32 of FWSC Act 737, which repealed all prior arrangements for the setting of salaries and conditions of service, and Section 29, which makes the FWSC solely responsible for all issues related to the administration of the public sector payroll. Expand the coverage of the SSSS to encompass these institutions will require harmonizing their governing legislation with the provisions of the FWSC Act.

3.19 **The salaries and allowances of Article 71 office-holders are not determined by the SSSS.** Article 71 office-holders are high-level public servants who receive pensions equal to their entire salaries, and their pensions currently represent an estimated 12-15 percent of the government's total

[86] These include the Civil Service, the Judicial Service, the Audit Service, the Education Service, the Prisons Service, the Parliamentary Service, the Health Service, the Statistical Service, the National Fire Service, the Customs, Excise and Preventive Service, the Internal Revenue Service, the Immigration Service, the Legal Service and the Local Government Service.
[87] Republic of Ghana, 1992 and 2009.
[88] Ghana Broadcasting Corporation, 2016.
[89] Though it is financed from the Consolidated Fund, the Audit Service has appealled its inclusion in the SSSS to the courts, arguing that the system would compromise the independence of the Auditor General as established in the 1992 Constitution.
[90] Ghana Revenue Authority Act, Act 791 of 2009
[91] However, the State Enterprises Commission, which oversees public corporations, has adopted the SSSS.

pension liabilities.[92] These generous pension payments are designed to discourage influence peddling by reducing the incentive for former government officials to seek employment in the private sector. However, the process for determining the salaries—and pensions—of Article 71 office holders is opaque and subject to an inherent conflict of interest.

3.20 **The president appoints a committee to determine the salaries and allowances of Article 71 office-holders, but these salaries are never made public.** This committee also recommends salaries and allowances for top officials in the executive branch, whose compensation is approved by Parliament. Career officials, such as judges or the Auditor-General, retire on their salaries, whereas elected officials, such as members of parliament and ministers, receive lump-sum gratuity payments at the end of their terms in office. These salaries and lump-sum payments are never published, and the reciprocal process for determining them creates a clear incentive for collusion.

THE GROWTH OF THE WAGE BILL

3.21 **A combination of expanding public sector employment and rising salaries has driven the growth of Ghana's wage bill.** The medium-term expenditure framework should allow policymakers to incorporate hiring strategies into expenditure planning, as any increase in public employment should be effectively approved or denied during the budget process. In practice, however, public agencies often fail to incorporate their hiring strategies into the medium-term expenditure framework, and budget allocations are determined without adequate consideration for anticipated changes in employment or compensation. Weak establishment controls compound deficiencies in budget planning, as new posts are often created without the requisite approvals.

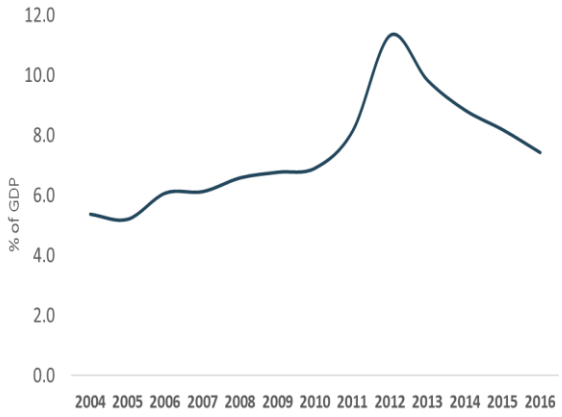
3.22 **Wage rates for most of the Ghanaian public sector are determined through collective bargaining with unions and professional associations, though the SSSS has now consolidated this process.** In the past, if negotiations were still underway when the annual budget was being prepared, a contingency vote would often be necessary to cover the anticipated increase in the wage bill. Another option would be to pass a supplementary appropriations bill after the fiscal year had begun, which would be subject to legislative debate. The SSSS can enable a single round of wage negotiations to be conducted before the budget is prepared, allowing policymakers to better incorporate salary increases into budget planning. In 2016, wage negotiations were concluded ahead of the budget-preparation process. Planned wage increases were included in the draft budget, which took effect in January 2017.

3.23 **The annual budget did not immediately reflect the fiscal impact of the SSSS.** Public employees were gradually shifted to the new structure, and those who were transferred to it after January 2010 received deferred wage payments. The considerable amount of time required to add new recruits to the payroll—several years in some cases—greatly increased the amount of deferred wages, especially in the educations sector.

[92] Article 71 office-holders include the President, the Vice President, the Chairman and Members of the Council of State; Ministers and their Deputies; the Speaker and Deputy Speakers of Parliament, Members of Parliament; the Chief Justice and other Justices of the Superior Court of Judicature; the Chairman and Deputy Chairmen of the Electoral Commission; the Auditor General; Commissioner for Human Rights and Administrative Justice and his deputies; District Assemblies Common Fund Administrator; the Chairman, Vice-Chairman and the other members of the National Council for Tertiary Education, Public Services Commission, National Media Commission, Lands Commission and National Commission for Civic Education.

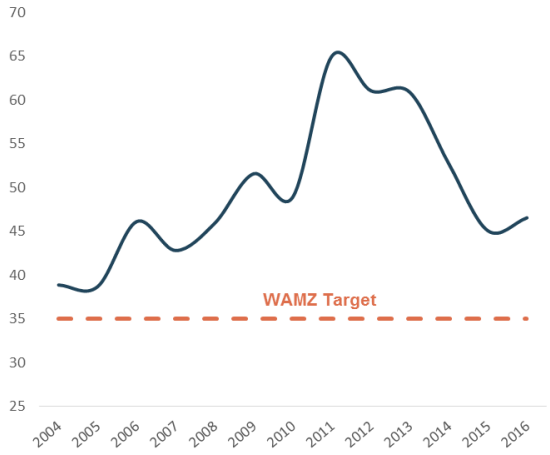
3.24 **The amount of deferred payments has varied over time, reaching a peak of 2.6 percent of GDP in 2012.** The spike in deferred wages pushed the wage bill's total fiscal cost to 11.4 percent of GDP (Figure 3.2) and over 60 percent of tax revenue (Figure 3.3). The wage bill has since declined as deferred wages have been cleared. Between 2009, prior to the introduction of the SSSS, and 2014, when the majority of the public sector workers had been migrated to the new system, spending on public sector wages increased by about 2 percentage points of GDP. The wage bill peaked in 2013 at 62 percent of tax revenue and 30 percent of total government spending, before declining to 53 percent of tax revenue and 29.6 percent of spending in 2014. The wage bill is projected to fall below 40 percent of tax revenue by 2017.

FIGURE 3.2: THE WAGE BILL AS A SHARE OF GDP, 2004-2016



Source: Ghana Ministry of Finance; IMF and World Bank

FIGURE 3.3: THE WAGE BILL AS A SHARE OF TAX REVENUE, 2004-2016 (%)

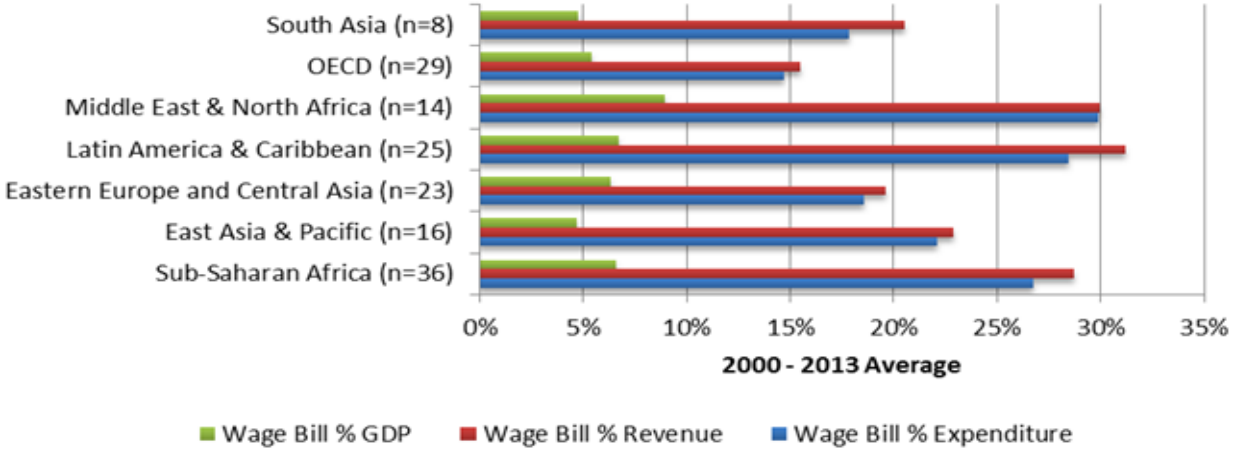


Source: Ghana Ministry of Finance; IMF and World Bank

3.25 **Ghana's wage bill relative to its budget and the size of the public sector workforce relative to the population are both somewhat large by the standards of comparable countries.** The wage bill is exceptionally high as a share of tax revenues, but only moderately high as a share of expenditures or GDP (Figure 3.4). Ghana's wage bill amounted to 61 percent of tax revenue in 2012, and fell to 44.2 percent in 2015, still well above the SSA average of 28 percent and the West African Monetary Zone convergence criterion of 35 percent. The wage bill ranges from about 20-25 percent of government spending in advanced economies and emerging markets to almost 30 percent in low-income countries.[93] In 2016, Ghana's total public sector wage bill, including deferred wages, represented about 26 percent of government spending and equaled 7.2 percent of GDP, within the 5-10 percent range for most emerging markets and low-income countries.

[93] Formi and Novta, 2014.

FIGURE 3.4: THE WAGE BILL AS A SHARE OF GDP, REVENUES AND EXPENDITURES WORLDWIDE



Source: World Bank and IMF Wage Bill Database

3.26 **Public sector employment growth has outpaced population growth, but the number of public sector workers per capita remains in line with global comparators.** Between 2009 and 2014, public sector employment in Ghana grew by about 23 percent, while the total population grew by about 13 percent. Nevertheless, public sector workers continued to represent less than 2 percent of the population compared to an average of 7-8 percent in OECD countries and about 5 percent in emerging markets and low-income countries (Table 3.8).[94] However, Ghana's entire formal sector only employs about 12 percent of the active labor force, and the public sector represents about half of all formal employment.[95] As a result, public sector wages and employment terms have enormous influence in the formal labor market.

[94] *Ibid.*
[95] Guelfi, 2015.

TABLE 3.8: THE WAGE BILL, PUBLIC SECTOR EMPLOYMENT AND THE TOTAL POPULATION, RELATIVE SIZES AND GROWTH RATES, 2009 AND 2015

	2009	2014	2009-2014 (% change)	2015
Wage bill (GH¢ millions)	2,447.9	9,497.3	288%	13,015.24
-Education	1,181.0	4,988.8	322%	5,530.65
-Health	398.9	1,503.8	277%	2,031.55
-Other	868.0	3,004.7	246%	5,453.04
Public sector employment (thousands)	403	497	23%	520
-Education	254	302	19%	306
-Health	72	90	25%	108
-Other	78	106	35%	105
Population (thousands)	23,107.91	26,216.11	13%	27,670.17

Note: Public employment figures are based on the automated payroll
Source: Ghana Ministry of Finance

3.27 **Public employment grew fastest in health, education, and other social services, as the government strove to achieve the Millennium Development Goals.** Following the implementation of the SSSS in 2010, 94,000 public employees were added to the payroll, with the largest increase (35 percent) recorded in the social sectors. This includes a 25 percent increase in employment by the Ghana Health Service, reflecting an additional 18,000 workers, and a 19 percent increase by the Ghana Education Service, reflecting 48,000 new workers, most of whom were teachers. While the growth of public employment contributed to the rising wage bill, Ghana's performance on the Millennium Development Goals was mixed, and it continues to lag behind other middle-income countries in terms of the number of teachers and physicians per capita.[96]

3.28 **While public employment has increased rapidly, rising wage rates have been the single largest contributor to the growth of the wage bill.** Public sector wages doubled between 2009 and 2014, driven by large annual pay raises and a one-time cost incurred by the transition to the SSSS. Despite the government's effort to curb the growth of the wage bill, negotiations between 2009 and 2014 yielded a 20 percent real increase in the average public sector wage rate. In 2014, the government agreed to a 10 percent cost of living allowance instead of a general salary increase and froze pension payments at their 2014 level. Meanwhile, the one-time cost of shifting to the SSSS reflected an effort to equalize the distribution of wages across sectors by raising them to the level of the health sector. The FWSC, which oversaw the transition, estimated that the average government salary increased by 28 percent as a result of the SSSS.

3.29 **Rising allowances compounded the increase in wage rates.** Public employees on the SSSS receive allowances in addition to their base pay. Between 2009 and 2014, these allowances rose dramatically, both in nominal terms and as a share of total compensation (Table 3.9). Not all allowances are paid through the same payment system as salaries—some are paid in cash, and cash payments may not be properly accounted. Despite the government's attempts to contain the growth

[96] Republic of Ghana/United Nations Development Programme, 2015.

of the wage bill in the context of its ongoing IMF Extended Credit Facility program, rising allowances in the last quarter of 2015 caused an overrun in the nominal wage bill equal to 0.2 percentage points of GDP, even as salaries declined in real terms.[97]

TABLE 3.9: PUBLIC SECTOR COMPENSATION, 2009-2014 (GH¢)

	2009	2010	2011	2012	2013	2014	% change
Salaries	1,885.5	2,063.3	3,163.6	5,266.2	5,468.9	5,604.1	197.2
Allowances	47.9	233.6	554.5	1,350.2	1,485.2	1,769.9	3,597.0
Allowances/Salaries (%)	2.5	11.3	17.5	25.6	27.2	31.6	

Source: World Bank staff calculation based on data form the Ghana Controller and Accountant General's Department

3.30 **Payroll irregularities have exacerbated the growth of the wage bill.** Improper salary and pension payments amounted to approximately GH¢ 1.2 million in 2012 (Table 3.10).[98] Irregularities were observed in twelve government agencies, with the Ministry of Education (MoE) and Ghana Education Service registering the largest amount (GH¢ 344,851), followed by the MoF (GH¢ 311,027), and the Ministry of Health (MoH) and Ghana Health Service (GH¢ 115,347). Many of these irregularities were caused by a failure to remove former staff from the payroll, and the commercial banks that received these unearned salaries as direct deposits were often unwilling to cooperate with the authorities in identifying those accounts and returning the improper payments.

TABLE 3.10: PAYROLL IRREGULARITIES, 2012

Ministries, Departments, and Other Public Agencies	Payroll Irregularities	
	GH¢	US$
Ministry of Finance	311,027.38	-
Ministry of Food & Agriculture	115,347.89	-
Ministry of Education (Ghana Education Service)	344,851.86	-
Ministry of Foreign Affairs	-	1.033.22
Ministry of Interior	43,948.08	-
Ministry of Roads and Highways	56,121.43	-
Ministry of Local Govt. & Rural Development	24,643.35	-
Ministry of Lands, Forestry & Mining	3,779.85	-
Ministry of Justice and Attorney General	10,772.01	-
Ministry of Youth and Sports	42,549.98	-
Judicial Service	98,686.61	-
Office of Government Machinery & Other Agencies	34,156.62	-
TOTAL	1,156,017.56	1,033.22

Source: Report of the Auditor-General on the Public Accounts of Ghana, December, 2012

3.31 **There are indications that "ghost workers" inflated the payroll.** Ghost workers are names recorded in the payroll system that do not correspond to an active employee. Ghost workers may be

[97] IMF, 2016.

[98] These figures come from the Report of the Auditor-General on the Public Accounts of Ghana for December 2012, which was under discussion by the Public Accounts Committee of Parliament in 2016.

real individuals who collect unearned salaries or fictional identities created to defraud the payroll system. While it is unclear how widespread the problem of ghost workers is, the phenomenon seems to have been especially prevalent in the Ghana Education Service, which accounts for about two-thirds of the total government payroll. The government has already removed over 3,000 teachers from the payroll who were not at their assigned posts.[99]

REFORMS UNDERTAKEN SINCE 2014

3.32 **Ghana has committed to curbing wage-bill overruns as part of its IMF-supported stabilization program, and the government has launched a number of measures designed to reduce the size of the wage bill and mitigate the risks it poses to macroeconomic stability.** In November 2014, the government appointed a Cabinet Inter-Ministerial Committee to monitor payroll reforms. In March 2015, this committee adopted a seven-point plan for resolving payroll irregularities, which included: (i) the removal from the payroll of public employees without listed bank accounts; (ii) the suspension and verification of salary payments to employees without social security numbers; (iii) the implementation of a biometric validation exercise for all employees on the automated payroll system; (iv) the establishment of the electronic wage payment system to enable monthly staff verification by all department heads before payments are made; (v) a payroll security assessment conducted through an audit of the payroll databases; (vi) the migration of subvented[100]entities onto the automated payroll databases;[101] and (vii) a large-scale public payroll management audit designed to identify the officials responsible for irregularities and inform any legal action the government may pursue.

3.33 **The authorities are also implementing several new electronic payroll-management platforms and integrating the payroll with other PFM systems.**[102] Key measures include the establishment of the Electronic Salary Payment Voucher System, the E-Payslip System, the E-zwich Payment System,[103] and the Human Resource Management Information System for public sector employees,[104] as well as the automation of payroll input forms by the Controller and Accountant General's Department. The government is also upgrading its Oracle database to reduce configuration errors, enhance its default settings, and address a fundamental misalignment of the database tiers. If successfully implemented, these improvements could reduce payroll-processing

[99] Myjoyonline, 2016.

[100] In Ghana, the term "subvented" refers to organizations that are publicly financed but not part of the central government, such as national universities.

[101] As of September 2015, these agencies had a total staff of 176,575, 40 percent of which were National Service Personnel, while 22 percent were employed by the country's eight public universities, all of whom will be migrated to the automated payroll system. The remaining one-third are employees of subvented agencies that will have their internal payroll mechanisms strengthened, and will not be migrated to the automated payroll system.

[102] The Controller and Accountant General's Department merged the Integrated Personnel and Payroll Database into the Ghana Integrated Financial Management Information System in June 2014, and it is now being aligned with the Human Resource Management Information System. However, the functionality of the Integrated Personnel and Payroll Database is limited by slow processing speeds and a lack of storage capacity.

[103] The E-zwich is a biometric smartcard system that was intended to come online at end-May 2016. The Controller and Accountant General's Department issued a letter in April stating that all salaried workers were required to register for E-zwich cards or their salaries would be suspended. However, the implementation of the E-zwich platform was suspended amid concerns by public employee unions regarding its readiness for nationwide rollout. See: GhanaWeb, 2016b.

[104] The government expects to complete the implementation of the Human Resource Management Information System by December 2016, after which an independent evaluation will assess whether the proper security controls are in place and the guidelines are being followed.

runtimes from 4-5 days to about two hours, the global standard for a payroll of 500,000. However, storage capacity remains very limited, and provisions for disaster recovery are inadequate.

3.34 **The Ministry of Finance's 2014 Economic Policy and Budget Statement specified a set of payroll controls designed to complement the work of the Cabinet Inter-Ministerial Committee.** These included measures to contain annual wage increases, limit the establishment of new positions (except in key areas such as education and health care), conduct a human resource audit and personnel headcount, and strengthen the government's oversight of public employment and compensation by modernizing the Human Resource Management Information System (see Annex I). These initiatives are part of a broader public service reform strategy unveiled in early 2016.[105]

3.35 **As a result of the government's efforts, the wage bill fell from 8.3 percent of GDP in 2014 to 7.5 percent in 2015, slightly below the target of 7.7 percent.** As a share of public revenue, the wage bill peaked at 62 percent in 2012 before falling to 44.2 percent in 2015. As of April 2016, the public sector employed an estimated 519,000 active workers, with another 80,000 on pensions. Subvented agencies employed an additional 134,000 workers. Despite the pressures ahead of elections, Ghana managed to reduce the wage bill further to 7.2 percent of GDP in 2016.[106]

THE POLITICAL ECONOMY OF PUBLIC SECTOR PAY REFORM

3.36 **Effective wage-bill reforms must reflect the complex political economy of the Ghanaian public sector.** The persistent upward pressure on public sector wages is due in part to Ghana's relative political liberalism, which has allowed for the formation of a strong labor movement capable of mounting strikes and pursuing other forms of collective action. Meanwhile, the complexity and administrative fragmentation of the pay-setting process limits the government's ability to coordinate negotiations. In addition to Ghana's numerous public sector unions and professional associations, a full 17 government institutions are either directly or indirectly involved in establishing compensation rates and terms.[107] The FWSC Act of 2007 (Act 737) stipulates that although in principle the FWSC supersedes all the other pay-setting arrangements, "institutions such as the Office of the President, the Ministry of Finance and Economic Planning,[108] the Public Services Commission and the Ministry of Employment and Social Welfare that have been involved in reviewing salaries and allowances of Public Service institutions over the years should support and cooperate with the FWSC in the delivery of its mandate." The large number of institutions involved in setting wages is a major obstacle to payroll reform in Ghana, as the involvement of many diverse agencies with differing interests and perspectives intensifies the difficulty of coordinating policy actions across the public sector.

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[105] Government of Ghana, 2016.

[106] National Development Planning Commission, 2016; IMF, 2016. Under the 3-year program, the government may recruit new health and education staff only if it is able to generate sufficient a revenue increase to cover their salaries.

[107] These include the Office of the President, the Ministry of Finance, the Ministry of Employment and Labour Relations, the Public Services Commission, the FWSC, the Public Sector Reform Secretariat, the Office of the Head of the Civil Service, the Controller and Accountant General's Department, the National Labour Commission, the Ghana Statistical Service, the Management Development Productivity Institute, the Compensation Committee, the Technical Committee, the Public Services Joint Standing Negotiating Committee, the National Tripartite Committee, the Presidential Committee on Emolument for Article 71 Office Holders, and Parliament.

[108] The Economic Planning functions of the Ministry of Finance have since been shifted to the National Development Planning Commission by executive fiat.

3.37 **The fragmentation of pay-setting authority across public institutions greatly expands opportunities for patronage**.[109] While the SSSS was designed to consolidate wage negotiations under the oversight of the FWSC, influence over wages and benefits remains subject to capture by private interests. Recent efforts to purge ghost workers from the payroll are a positive step, but permanent improvements in monitoring and accountability will be necessary to curb the abuse of pay-setting authority.

3.38 **Moreover, Ghana's relatively strong democratic institutions allow for a more organized public sector workforce capable of bringing substantial pressure to bear on policymakers.** The return to constitutional rule in 1992 has empowered a range of stakeholders, including public sector unions, and integrated them into inclusive decision-making processes.[110] Twenty-eight labor unions and professional associations comprise the Public Services Joint Standing Negotiating Committee, which represents public sector workers in salary negotiations. The strength of Ghana's labor unions reflects the country's relative freedom of association and respect for political advocacy, but it also results in continuous upward pressure on public sector wages.

3.39 **The close elections of recent years have increased the political leverage of public sector unions.** In a context of tight electoral contests, labor representatives who can credibly wield the electoral power of their constituents are in a strong position to negotiate for higher wages. Ghana's public sector unions have also proven adept at using political power to resist efforts to strengthen performance oversight and enforce sanctions for illegal strikes.

3.40 **Finally, structural deficiencies in the legislative framework for pay-setting generate conflicts of interest.** For example, the President appoints the committee that determines the salaries of Article 71 officeholders, which include members of Parliament, while Parliament is empowered to determine the salary of the president and other top-level executives. This arrangement creates a clear incentive for collusion. Indeed, the entire system for determining the salaries and benefits of Article 71 officeholders is deeply problematic and inherently vulnerable to abuse.

CONCLUSION AND RECOMMENDATIONS

3.41 **Reducing the public sector wage bill is among the most difficult austerity measures to implement, as it directly affects the interests of powerful groups.** Public sector employment is a major source of income for educated workers in urban areas, and it can be leveraged to garner support from important political constituencies.[111] Public sector jobs can also serve as a vital social-insurance mechanism, particularly in economies vulnerable to shocks, as public employees constitute a large share of the non-agricultural workforce in most developing countries.[112] As a result, governments often attempt to protect spending on public sector wages even in the face of tight fiscal constraints.[113] In this challenging context, policymakers can successfully keep the wage bill in check by focusing their efforts on key strategic objectives, including those outlined below.

[109] Booth *et al.*, 2005.
[110] Lenhardt *et al.*, 2015.
[111] Nooruddin and Vreeland, 2010.
[112] Rodrik, 2000.
[113] Mahdavi, 2004.

Integrating Wage Bill Controls into Macro-Fiscal Management

3.42 **To meet its regional convergence and multilateral commitments, Ghana's government will need to continue tightening its control over public sector wages and benefits.** As part of its stabilization program, the government has pledged to reduce the size of the wage bill relative to both GDP and tax revenue. Ghana's wage bill amounted to 44.2 percent of tax revenue in 2015, and though it is trending downward it remains well above the ECOWAS convergence criterion of 35 percent. However, the government did not set a target percentage in its IMF-supported National Public Sector Reform Strategy for 2017-27, which offered few specifics on how the authorities plan to further reduce the wage bill.

3.43 **In the medium term, the ongoing expansion of the health and education sectors will continue to put upward pressure on the wage bill, and increasing revenues will be as important as reducing expenditures.** The World Bank is currently supporting the development of a data warehouse and improved business intelligence systems to enhance the GRA's collection efficiency. Additional technological upgrades could further strengthen tax administration and boost domestic revenue mobilization.

Containing the Growth of Staff Levels

3.44 **The authorities should maintain the hiring freeze in all sectors except health and education.** New staff should be recruited only to fill vacancies for budgeted positions. Establishing a pre-payroll system would help to ensure that new hires are promptly added to the payroll so that arrears do not accumulate. The new Human Resources Management Information System should be augmented with a web-based pre-payroll system that operates in real time. Such a system would not only accelerate the integration of new staff into the payroll, but can also regulate how many employees may be recruited in each sector.

3.45 **Further efforts to eliminate payroll irregularities would reduce costs incurred through inefficiency and fraud**. The government has been purging ghost workers, duplicate post-holders and employees over the retirement age, as well as eliminating vacant posts and addressing other payroll irregularities. Continuing these efforts is expected to yield additional fiscal savings.

3.46 **Undertaking functional reviews of service delivery could reveal additional ways to reduce staff.** It is unlikely that the selective hiring freeze and payroll reforms will be sufficient to achieve the government's wage-bill objectives. Functional reviews of service delivery conducted by independent teams could identify new areas for cost savings and develop strategies to enhance service quality with a limited number of staff. These teams could report to an inter-ministerial group convened exclusively for this purpose.

Limiting Future Pay Increases

3.47 **Over the medium term, the authorities should continue to exercise tight control over annual wage increases.** Enabling further employment growth in key sectors, such as health and education, without compromising the sustainability of the wage bill will require keeping average pay at or near its current level for at least the next three years. Statistical simulations indicate that the

government will need to limit real wage increases to no more than 4 percent per year in order to accommodate the anticipated 8,000 new employees entering the education and health sectors.[114]

3.48 **Ending the use of "market premium" payments would slow the growth of the wage bill.** In principle, market premium payments are allowances paid to staff with difficult-to-find skills. In practice, however, it is unclear whether these payments are justified by either the skills of individual staff members or the wages offered by the private sector. Moreover, public sector unions are currently attempting to expand their use, which could undermine payroll controls. Suspending these payments would yield an immediate savings pending a wider review of wage competitiveness.

Maintaining Wage Parity with the Private Sector

3.49 **The government should take steps to ensure that public sector wage rates remain aligned with those of the private sector.** Commissioning independent reviews of wage levels in the local economy may be technically challenging, but these reviews can establish the analytical foundation for maintaining wage parity with the private sector.[115] Data on private sector wage rates can also be used to anchor wage negotiations with public sector unions.

3.50 **Review allowances and nonwage benefits with a view to reducing their size relative to salaries.** OECD countries are striving to bring the base pay for civil servants close to 100 percent of their total remuneration, with allowances used only in exceptional circumstances. Minimizing the use of allowances and nonwage benefits can help strengthen expenditure oversight and control. In Ghana, the authorities should begin by ending the practice of paying cash allowances to staff who attend meetings outside the office. As with other nonwage benefits in Ghana's public sector, these allowances are inadequately monitored and serve no clear administrative purpose.

3.51 **Over the longer term, the government should replace the SSSS pay grid with a set of occupation-specific pay grades.** Developing a competitive pay policy for each occupational group in the public service based on data from the independent reviews can help mitigate the impact of public sector wages on the private labor market. This is especially critical in Ghana, where the small formal private sector is highly sensitive to public sector price signals.

Improving Transparency and Strengthening Oversight

3.52 **The total compensation paid to Article 71 officeholders—including all wages, allowances, and benefits—should be made publicly available.** Full disclosure of the compensation offered to top government officials is consistent with international best practices. Similar to the process used in other Commonwealth countries, an independent review commission should be established to analyze the compensation paid to Article 71 officeholders.

3.53 **The authorities should expand the use of modern performance-evaluation techniques across the public sector.** Performance monitoring is crucial to the effectiveness of the public administration and should serve as the basis for wage increases and promotions. At present, the lack of a systematic performance evaluation process results in pay inequalities within the public sector and distorts remuneration levels between the public and private sectors.

[114] IMF, 2015.
[115] Barma and Orac, 2014.

STIMULATING PRIVATE SECTOR DEVELOPMENT

3.54 **Creating opportunities for formal wage employment outside of the public sector should be a high priority for the Government**. The public sector wage premium and limited growth of private sector jobs make the public sector the primary source of wage employment and ultimately lead to over-staffing and the "queueing" phenomenon described above. Hence, there is an urgent need to stimulate development of the formal private sector to ease the pressure on public sector job creation. This is particularly important in the light of the large numbers of tertiary education graduates expected in the coming years from the various educational institutions currently in operation (Annex 3.2).

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ANNEX 3.1: SHORT-TO-MEDIUM TERM MEASURES TO ADDRESS THE SUSTAINABILITY OF THE PAY POLICY IN THE 2014 BUDGET STATEMENT AND ECONOMIC POLICY

Institutional Arrangements: The MoF has established a Compensation of Employees Unit under the Budget Division to deal with all compensation issues including those relating to wages and salaries, allowances, pensions, social security, and gratuities. In addition, the Ministry has constituted a Compensation Committee with membership drawn from the MoF, the CAGD, the FWSC, and the Public Services Commission to advise on compensation issues.

Weaning off Subvented Agencies from Government Payroll:12 subvented agencies which have the capacity to be on their own with regards to payment of their personal emoluments have been identified to be weaned-off Government subvention. Measures and modalities will be established to assist the identified institutions to be weaned-off Government payroll. This exercise will continue in the medium term until all such institutions are weaned off.

Recruitment and Replacement: From 2014, the wages and salaries vote of MDAs and MMDAs in respect of recruitment and replacement of staff in public sector institutions, will be subjected to budget constraint. In this regard, the MoF will collaborate with the Public Services Commission and Office of the Head of Civil Service to ensure that due process, including seeking financial clearance before undertaking recruitment and replacement, are observed. Sanctions will be imposed on heads of institutions who do not follow the due process.

Market Premium: Government will implement the White Paper on Market Premium without further delay. To this effect, Government has directed the FWSC and the Ghana Statistical Service to undertake a Labour Market Survey to inform the determination of critical skills in short supply and their market premium, starting with the Health and Education sectors. From January 2014, the existing interim market premium paid to some workers will be abolished and replaced by market premium determined in consonance with the White Paper.

Public Service-Wide Performance Management System: Linking pay to productivity is one of the phases in the implementation of the SSPP. To this end, the FWSC in collaboration with the Public Services Commission and the Management Development and Productivity Institute will expedite action on the modalities for the introduction of the Public Service-Wide Performance Management System.

Categories 2 & 3 Allowances: Government has observed the existence of several allowances in the public service and the need to streamline and bring sanity into the administration of these allowances. As part of the implementation the Single Spine Pay Policy, the FWSC in collaboration with the Public Services Joint Standing Negotiation Committee (PSJSNC) is working on the harmonization and standardization of categories 2 and 3 allowances. To ensure that this phase of the SSPP is sustainable, the FWSC and the MoF will engage Organized Labour to ensure that the implementation of the categories 2 and 3 allowances is executed within budget constraints and is properly phased. Measures will also be implemented to ensure that existing allowances are not abused and are executed based on approved budget of MDAs.

Use of Internally Generated Funds: Some institutions use their Internally Generated Funds (IGFs) to honour unapproved payments such as payments of salary supplements contrary to what

the law on the use of IGF stipulates. These actions are illegal and any institution found indulging in this act will be sanctioned accordingly. To ensure efficient, effective, and lawful use of IGFs, the IGFs of MDAs will be administered using the warrant system through the GIFMIS as required by Regulation 165 of the FAR.

Book and Research Facility: Government recognizes the importance of research in teaching and learning in all higher institutions of education. In order to encourage more research work in tertiary institutions and to realize its full benefits, Government has decided to review the existing system of payment of the book and research allowance, and replace it with a Research Facility. The Ministry of Education through the National Council for Tertiary Education has set aside Ghana Health Service 15 million towards the establishment of a Research and Innovation Facility. The Ministry is to develop guidelines for the operationalization of the Facility, whiles engaging stakeholders on exploring other sources of making the Facility sustainable.

Human Resource Management Policy: The Public Services Commission has developed a comprehensive Human Resource Management Policy Framework and Manual. This is aimed at reviewing and remolding past and outmoded procedures and processes to conform standards in human resource management. This will also strengthen the overall capacity of the public service for effective service delivery. In line with government's policy determination to control the rising wage bill, the Public Services Commission has been mandated to build a human resource database of Government employees (HRMIS) to enable Government effectively control the entry and exit of workers in public sector institutions. This will, in part, allow Government to constantly review the staff ceilings and mandates of public institutions to identify overlap of functions and recommend appropriate right-sizing of MDAs and MMDAs, where necessary.

Payroll Upgrade: The CAGD is upgrading the payroll system to enhance efficiency by allowing more time for payroll update, improve performance by minimizing human intervention during payroll run, and reduce payroll processing time. The payroll upgrade is expected to be completed in December 2013. After completing the payroll upgrade, the IPPD will be integrated into GIFMIS to facilitate automatic accounting for payroll data as well as strengthen budgetary control on payment of salaries and wages. The integration of the Payroll and HRMIS systems will resolve many issues surrounding effective payroll administration, including recruitment, transfers, promotion, and termination of staff from the public services.

Payroll Audit: Government has commissioned the Internal Audit Agency to audit the 2011 and 2012 payroll of selected institutions with the support of the CAGD. This exercise will focus on Ghana Education Service and Ghana Health Service as the first phase. The review and the head count exercise will be extended nationwide.

Biometric Registration: The CAGD in collaboration with the National Identification Authority is to start the clean-up of the biometric data of Public Servants on Government Payroll and also validate the existence of active and retired officers as well as new entrants by November 2013.

Electronic Salary Payment Vouchers (ESPV). To facilitate the review and certification of salary payment vouchers, the CAGD is implementing an Electronic Salary Payment Voucher System (ESPVS) and plans are far advanced for its roll out. Heads of MDAs and MMDAs will henceforth, be required to certify on a monthly basis, staff on their nominal payroll before the MoF issues a

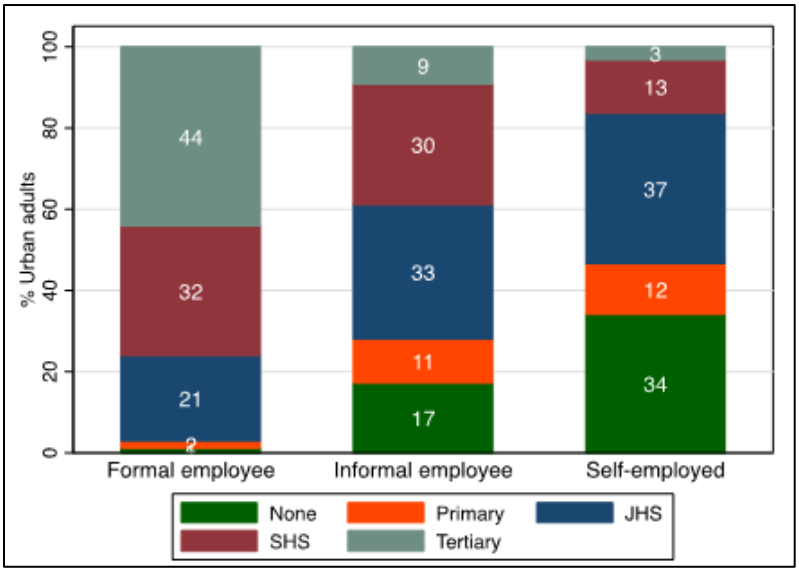
warrant for payment of their salaries. This will make Heads of Institutions responsible for managing their own wages and salaries budgets and reduce the phenomenon of "ghost names" on the payroll.

Electronic Pay Slips: To facilitate timely information on salaries paid to public sector employees, an Electronic Pay Slips System has been developed and deployed to MDAs to enable employees access their pay slips on mobile phones or computers with internet connectivity before they go to the bank.

Source: Republic of Ghana (2013) Budget Statement and Economic Policy of the Ghana of Ghana for 2014.

ANNEX 3.2

FIGURE 3.5: LEVEL OF EDUCATION BY EMPLOYMENT STATUS



Source: World Bank Skills Report (Authors' calculation based on the STEP survey)
Note: Excludes people currently attending school.

TABLE 3.11: ENROLMENT IN TERTIARY INSTITUTIONS (ESPR 2016)

Details	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Public Institutions						
Public Universities	107,058	115,452	109,278	128,326	138,416	147,180
Polytechnics	46,079	43,113	47,294	53,078	54,897	53,978
Colleges of Education (Public)	26,861	26,703	27,580	27,906	33,526	36,563
Specialized/Professional Institutions			14,951	7,715	11,735	10,786
Total Public Institutions	179,998	185,268	202,063	221,632	238,574	248,507

Private Institutions						
Total Private Institutions*		32,275	59,899	61,874	75,272	72,239
Total tertiary enrolment		217,543	261,962	283,506	313,846	320,746
*includes: private universities and private Colleges of Education						

CHAPTER 4 BUILDING HUMAN CAPITAL THROUGH INVESTMENT IN THE PUBLIC EDUCATION AND HEALTH SECTORS

Sustainable and inclusive long-term growth requires a healthy, educated labor force with the skills and flexibility necessary to meet the evolving demands of a dynamic economy. Robust investment in human capital, complemented by high-quality physical infrastructure and an efficient, sophisticated public administration, is essential to increase labor productivity. Recognizing the foundational role of human capital formation in economic growth and development, the Government of Ghana devotes a large share of its budget to the health and education sectors. Over the last five years, public spending on health and education have accounted for an average of 25 and 8 percent of the central government budget, respectively. While Ghana's education budget compares favorably with those of peer countries, its health spending is relatively modest.

Total public spending on health and education has steadily increased in nominal terms to address a growing demand for social services. A dramatic rise in public employment has facilitated the rapid expansion of education and health services, and the wage bill has driven the growth of public spending in both sectors. However, as the quantity of public education and health services has increased, the quality of those services has diminished.

This chapter analyzes public education and health spending by examining their sources and levels of funding, both public and private, as well as the allocation of budgetary resources within each sector, the evolution of service quality and changes in outcome indicators. The analysis reveals that, similar to trends observed in Ghana's other major sectors, both the sources of health and education financing and the responsibilities for executing sectoral programming are fragmented across a range of government agencies. This complicates efforts to monitor spending, evaluate progress against strategic objectives, and design appropriate policy changes or institutional reforms. Moreover, the bulk of the increase in health and education spending has gone to finance wages and benefits for a rising number of teachers and health personnel, while the budgets for other current expenditures and capital investment have grown only marginally or not at all.

The supply of education services has increased rapidly over the last decade. School enrollment rates have increased at all education levels, and most gender-parity indicators have improved. However, measures of reading and mathematics skills show little overall progress and reveal vast disparities between poorer and wealthier districts and between rural and urban areas.

The supply of health services has also grown dramatically, supported by a mix of government, faith-based and private facilities, an increasing number of public health workers, and a burgeoning domestic pharmaceutical market. However, progress in improving health indicators has been mixed: the share of births attended by a skilled healthcare worker has risen, but the use of modern contraceptives has only modestly increased, while immunization rates have marginally declined, and the proportion of children taking anti-malarial drugs has fallen. Moreover, as with education, health sector indicators show vast disparities between rural and urban areas and between poor and wealthy households. Going forward, ameliorating unequal health and education outcomes through broad-based improvements in service quality will pose a pivotal challenge for policymakers in both sectors.

INTRODUCTION

4.1 **The Government of Ghana devotes a large share of its budget to the education and health sectors.** Over the last five years, total public spending on education and health have represented an average of 23.7 and 8 percent of the central government budget, respectively. The level of public education spending is broadly in line with that of comparable countries and above the average for both lower-middle-income and SSA (Table 4.1).

4.2 **While education spending represents a large share of the budget, the share devoted to public health is low by international standards.** Ghana devotes a smaller portion of its budget to public health spending than the average for both lower-middle-income and SSA countries. On a per capita basis, Ghana's health spending is the 9th lowest globally and the 3rd lowest in SSA. At just 1.41 percent of GDP, Ghana's health spending is the 10th lowest globally and the lowest in SSA relative to the size of its economy.

TABLE 4.1: PUBLIC EDUCATION AND HEALTH SPENDING AS A SHARE OF GDP, 2014

	Education	Health
Ghana	4.62	1.41
Cote d'Ivoire	4.56	1.68
Kenya	4.88	3.50
Tanzania	3.73	2.59
Uganda	2.00	1.80
Zambia	1.06	2.76
South Africa	5.97	4.24
Senegal	5.19	2.42
Lower-Middle-Income Countries	3.06	1.64
Sub-Saharan Africa	3.20	2.31

Source: Ghana Controller and Accountant-General's Department; World Development Indicators.
Note: The figures for education spending reflect current expenditures only, while the figures for health spending include both current and capital expenditures, but not user fees or other forms of private, out-of-pocket spending.

4.3 **In an effort to expand service delivery, the government hired 150,000 new teachers and 18,000 new health workers between 2009 and 2015, and the wage bill now dominates both the health and education budgets.** In the education sector, the rapid growth of the wage bill has crowded out other forms of current spending and capital investment. The unsustainable trajectory of personnel costs has also contributed to the accumulation of arrears, as authorities have struggled to meet their payroll obligations. Meanwhile, the expansion of education services was accomplished at the expense of quality, and rising expenditures have not generated commensurate improvements in education and health outcomes. The government has recently tightened restrictions on public employment in an attempt to control the growth of the wage bill, but measures to enhance the effectiveness of existing personnel will be necessary to improve the efficiency of current spending.

THE EDUCATION SECTOR

FINANCING

4.4 **As part of Ghana's ongoing fiscal-consolidation effort, education spending has steadily declined as a share of the total government budget.** Education spending fell from nearly 30 percent of public revenue in 2012 to just over 20 percent in 2015 (Table 4.2). Nevertheless, the education budget remains above the 20 percent benchmark set by the Global Partnership for Education,[116] reflecting the government's commitment to achieving its objectives for the education sector. Over the last four decades, public spending on education has experienced cycles of growth and decline. In the most recent cycle, education spending rose to a peak of 6.4 percent of GDP in 2012, then fell to a low of 4.4 percent of GDP in 2015.

TABLE 4.2: EDUCATION FUNDING BY SOURCE, 2011-2015 (IN GH¢ MILLIONS UNLESS OTHERWISE SPECIFIED)

Funding Sources	2011	2012	2013	2014	2015
Government of Ghana	2,563.39	4,587.18	4,503.78	5,235.93	5,911.25
Government (% of GDP)	4.5	6.4	4.8	4.6	4.4
Government (% of Total Revenue)	21.93	29.43	24.59	22.63	20.14
Donor	127.26	114.31	268.87	321.8	362.48
IGF	354.29	630.67	718.27	799.54	1,468.39
GETFund	518.49	361.28	196.65	613.8	759.2
HIPC/MDRI	2.29	-	-	-	-
Annual Budget Funding Amount	-	10.57	9.11	10.67	195.27
Total Expenditure	3,566	5,704	5,697	6,982	8,697
Total Expenditure (% of GDP)	6.3	7.9	6.1	6.2	6.5

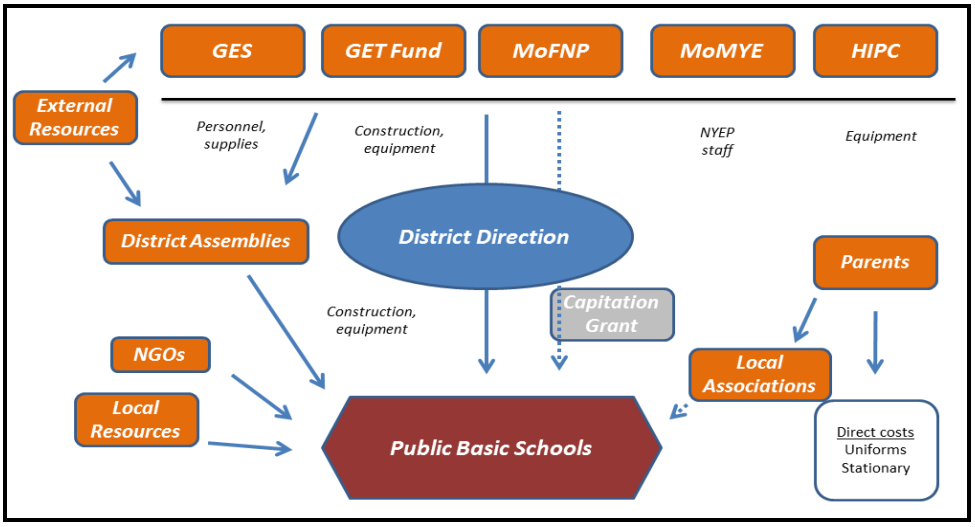
Source: Ministry of Education, 2016

4.5 **Ghana's education budget is financed by both domestic and external sources.** The national budget funds the majority of education spending, and its share has increased in recent years. However, donor financing and internally generated funds are also important, and in 2015 they accounted for 4.2 and 16.9 percent, respectively, of the overall education budget (Table 4.2). The government funds education though four public agencies: the CAGD, the District Assemblies Common Fund, the Ghana Education Trust Fund (GET Fund), and the Annual Budget Funding Amount. The CAGD accounts for around two-third of public education funding. The District Assemblies Common Fund and the GET Fund are statutory funds earmarked for education. However, GET Fund financing has fluctuated over the years, from almost 15 percent of total education funding in 2011 to 3 percent in 2014 and 8.7 percent in 2015. The Annual Budget

[116] The Education for All-Fast Track Initiative, now known as the Global Partnership for Education, established a recommended benchmark for domestic spending on education at 20 percent.

Funding Amount is an oil-revenue fund that finances education infrastructure, including the construction of primary and secondary schools and the upgrading of scientific resource centers.[117]

FIGURE 4.1:FLOW OF FUNDS FOR BASIC PUBLIC EDUCATION



Source: Darvas and Balwanz, 2011
Note: The Ministry of Finance and National Planning (MoFNP) is now known as the Ministry of Finance (MoF)

4.6 **Responsibility for education spending is highly fragmented.** The MoF establishes the overall budget and defines remuneration for teachers and other education staff. The GET Fund ostensibly finances infrastructure investment, though as noted above it no longer represents a significant share of the education budget. The Ghana Education Service manages recurrent expenditures and determines the appropriate number of primary and secondary teachers, while the National Council on Tertiary Education formulates the tertiary education budget. Finally, the Ministry of Education (MoE) is responsible for allocating donor funds and proposing the annual budget to the government.

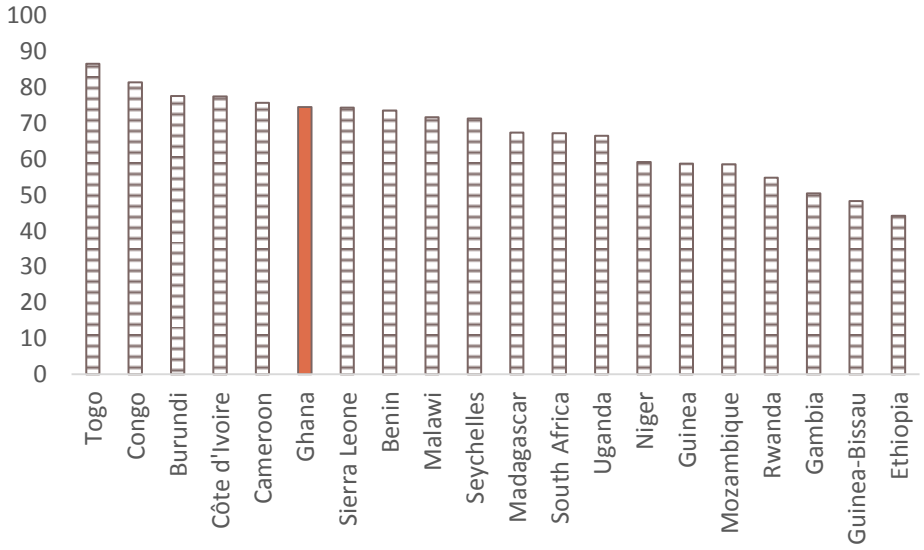
FIGURE 4.2: EDUCATION EXPENDITURES BY SOURCE AND TYPE, 2015 (GH¢ MILLIONS)

Source	Compensation	Goods & Services	Assets	Total	%
Government	5,905	6	-	5,911	68%
Donors		242	120	362	4.20%
IGF	11	1,367	90	1,468	16.90%
GET Fund	-	51.2	708.1	759.3	8.70%
The Annual Budget Funding Amount	-	144	51	195	2.20%
Total (%)	5,916 68.00%	1,812 20.80%	968 11.10%	8,696	

[117] MoF, 2015.

4.7 **Wages and benefits account for the vast majority of public education spending.** As discussed in detail in Chapter 3, personal emoluments increased by 21 percent between 2009 and 2015, largely due to the implementation of the SSSS. Wage commitments have grown continuously and do not appear to be constrained by MoF budget ceilings. Moreover, the rising wage bill regularly crowds out expenditures in other budgetary categories. In 2015, wages and benefits accounted for three-quarters of total education spending and almost all public education spending. While spending on the wage bill has declined marginally since 2014, it remains far above the SSA average (Figure 4.3).

FIGURE 4.3: THE WAGE BILL AS A SHARE OF TOTAL EDUCATION SPENDING, 2015 OR LATEST AVAILABLE YEAR



Source: UNESCO Institute for Statistics (UIS)

4.8 **The introduction of the SSSS has contributed to the over-execution of the personnel budget.** The overall budget-execution rate rose from 114.8 percent in 2014 to 119.6 percent in 2015, and personnel spending increased from 116.6 percent of allocated resources in 2014 to 120.3 percent in 2015. The over-execution of the personnel budget intensified despite the government's fiscal-consolidation efforts. The wage bill now completely dominates public education spending, and the execution rate for capital expenditures stood at a remarkable 0 percent in 2015.

FIGURE 4.4: EDUCATION BUDGET EXECUTION RATES BY CATEGORY, 2015 (IN GH¢)

Item	Budget Head	Ministry	Ghana Education Service	Tertiary	Total
Compensation	Allocation	434,650,952	3,548,577,516	926,505,697	4,909,734,165
	Expenditure	399,387,814	4,395,771,450	1,109,755,358	5,904,914,622
	% Execution	91.90%	123.90%	119.80%	120.30%
Goods and Services	Allocation	11,048,421	13,000,000	9,000,000	33,048,421
	Expenditure	5,703,782	293,794.19	335,910	6,333,486
	% Execution	51.60%	2.30%	3.70%	19.20%
Asset	Allocation	1,000,000	-	-	1,000,000
	Expenditure	-			-
	% Execution	0.00%			0.00%
Total	Allocation	446,699,373	3,561,577,516	935,505,697	4,943,782,586
	Expenditure	405,091,596	4,396,065,245	1,110,091,267	5,911,248,108
	% Execution	90.70%	123.40%	118.70%	119.60%

Source: Ministry of Education, 2016

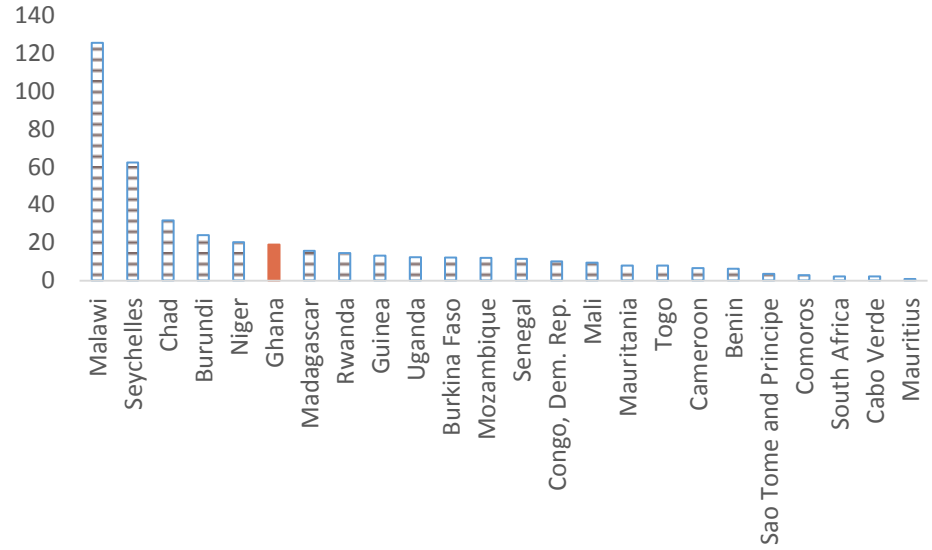
4.9 **Between 2014 and 2015, per-student spending increased significantly at the junior high school (JHS), senior high school (SHS) and tertiary education levels, while it decreased at the pre-primary, primary, and technical and vocational education and training (TVET) levels.** Tertiary spending experienced the largest increase while the largest decrease was in TVET spending. As a result, the ratio of per-student spending at the tertiary and primary levels nearly doubled from 10:1 in 2014 to 19:1 in 2015, one of the highest ratios in SSA. This trend has important policy implications, as it reflects an increasingly regressive distribution of education spending. As enrollment rates drop significantly at each education level, a very small share of students, most of whom come from wealthy households, are able to benefit from rising tertiary education spending. Shifting resources to primary, secondary, and TVET education would enhance the distributional equity of education spending, expand access to higher levels of education for primary students, and reduce systemic disparities that undermine service quality across the education sector.

TABLE 4.3: PUBLIC EDUCATION SPENDING PER STUDENT (GH¢)

Level	2009	2010	2011	2012	2013	2014	2015
Pre-Primary		60	84	347	288	386	339
Primary	192	224	390	413	440	446	392
JHS	277	336	367	837	819	850	1,364
SHS	704	603	761	1,372	1,685	1,980	2,312
TVET	885	1,030	2,481	3,351		7,569	5,707
Tertiary	2,620	2,763	3,144	4,992	-	4,460	7,439
Tertiary-to-Primary Ratio	13.6	12.3	8	12.1		10	19.0

Source: Ministry of Education, 2016

FIGURE 4.5: RATIO OF SPENDING PER STUDENT AT THE TERTIARY AND PRIMARY LEVELS, 2015 OR LATEST AVAILABLE YEAR



Source: UIS and Ministry of Education, 2016

SERVICE DELIVERY

4.10 **Enrollment has increased at the primary, JHS, and SHS levels, but decreased at the kindergarten level.** In Ghana, basic education comprises two years of kindergarten, six years of primary education, and three years of JHS. Gross and net enrollment rates[118] at the kindergarten level fell by 5 and 3 percent, respectively, between the 2014/15 and 2015/16 academic years. The decline in kindergarten enrollment may be due to inadequate facilities, especially in rural areas. This is significant, as delayed school enrollment can negatively affect the cognitive development of young children. Meanwhile, rising enrollment rates in public schools drove a 1 percent increase in the net primary enrollment rate, while private school enrollment rates remained stagnant from 2014/15 to 2015/16 at all basic education levels. As a result, the share of enrollment in private institutions fell from 7.9 percent in 2014/15 to 7.5 percent in 2015/16. Gross enrollment rates increased significantly at both the JHS and SHS levels, while net enrollment rose only slightly. Nevertheless, the gross enrollment rate is over 100 percent at the primary level and just 50 percent at the SHS level, underscoring the difficulty with which students rise through the educational system.

[118] The gross enrollment rate reflects the share of students enrolled regardless of age, while and the net enrollment rate reflects enrollment by students of the appropriate age.

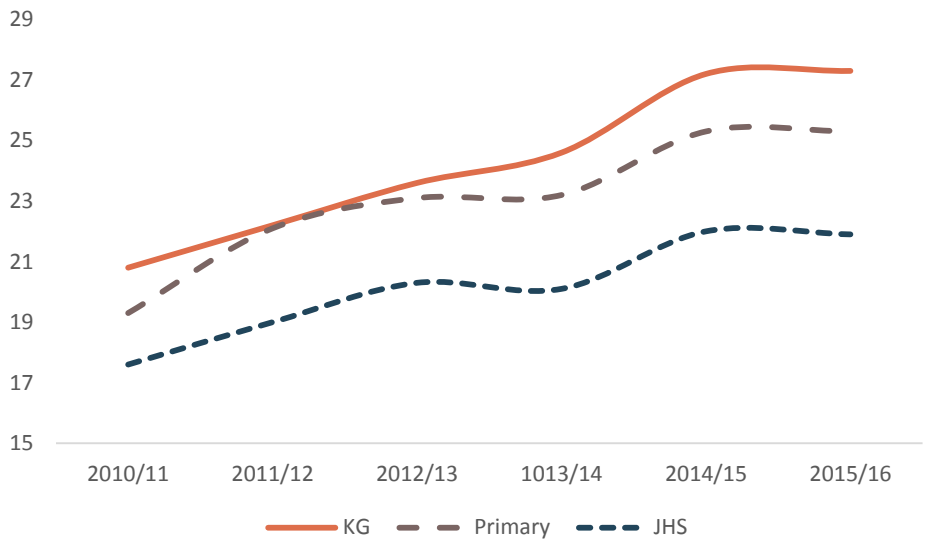
TABLE 4.4: GROSS AND NET ENROLLMENT RATES, 2016

	2014/15	2015/16
Kindergarten (Gross)	129%	124%
Kindergarten (Net)	83%	80%
Primary (Gross)	110%	111%
Primary (Net)	91%	92%
Junior High School (Gross)	85%	88%
Junior High School (Net)	49%	50%
Senior High School (Gross)[119]	46%	50%
Senior High School (Net)	23%	25%

Source: Ministry of Education, 2016

4.11 **The MoE is striving to expand access to SHS through targeted financial aid and the construction of new schools.** In September 2015, an initial disbursement of GH¢ 12,178,544 in financial aid was delivered to 320,488 day students across the country for the first term of the 2015/16 academic year.[120] By October 2019, the government is planning to award three-year SHS scholarships to 10,400 students, 60 percent of whom will be girls. The authorities also plan to fund the construction of 23 new high schools as part of the Secondary Education Improvement Project. Meanwhile, the Community Day Senior High School Project aims to build 200 new SHSs, 50 of which are already under construction. The government is considering converting 20 percent of these to TVET schools.

FIGURE 4.6: SHARE OF STUDENTS ENROLLED IN PRIVATE SCHOOLS



Source: Ministry of Education, 2016

[119] Gross enrollment in SHS does not include TVET.
[120] MoE, 2016.

4.12 **Additional education funding is provided to districts defined as "deprived" based on indicators of access, equity, and quality.**[121] Seventy-five of Ghana's 216 districts are classified as deprived. For the 2015/16 academic year, enrollment rates in deprived districts were above the national average at the kindergarten and primary levels, but below the average at the JHS level (Table 4.5). While deprived districts outperformed the national average in kindergarten and primary enrollment, they began from a much lower base. A recent impact evaluation indicated that deprived districts had improved their performance through better planning and monitoring, as well as more precisely targeted funding.[122]

TABLE 4.5: GER AND NER, NATIONAL AND DEPRIVED-DISTRICT AVERAGES, 2015 (%)

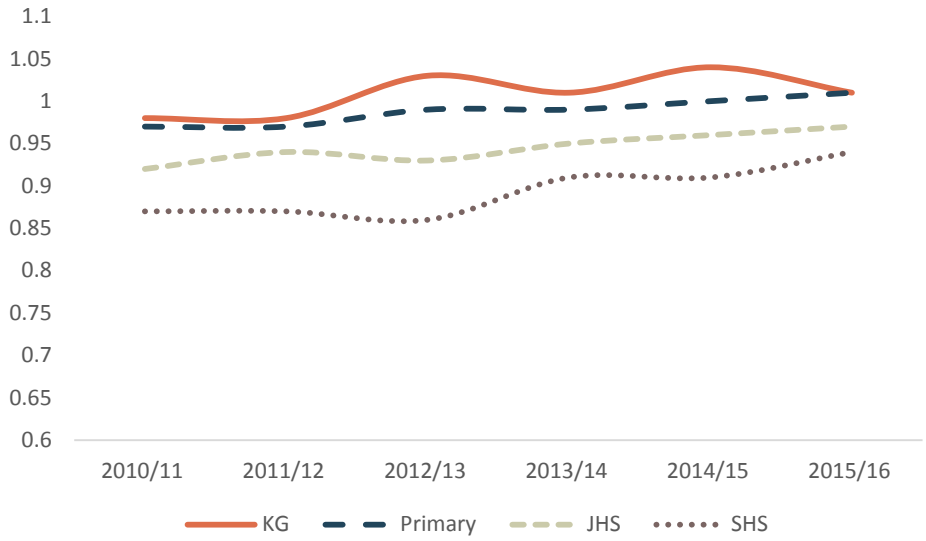
	National Average						Deprived Districts			
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2012/13	2013/14	2014/15	2015/16
Kindergarten (Gross)	98.4	99.4	113.8	123	128.8	123.8	111.6	134.6	148.8	138.8
Kindergarten (Net)	60.1	64.17	74.8	90.8	82.7	79.5	75.6	100.8	97.1	92.2
Primary (Gross)	96.4	96.5	105	107.3	110.4	111.3	98.8	103.9	112.2	111.4
Primary (Net)	77.8	81.7	84.1	89.3	91	91.5	81.1	88.5	93.5	93.7
JHS (Gross)	79.6	80.6	82.2	82	85.4	88	68.9	67.6	73.7	76.5
JHS (Net)	46.1	46.1	47.8	49.2	49	50.3	34.8	38.4	38.5	41.9

Source: Ministry of Education, 2016

4.13 **Since the 2012/13 school year, gender parity indicators have improved across all levels of the primary and secondary school system.** The most significant progress has been made at the lower grade levels, while modest gender disparities persist at the JHS and SHS levels. Ghana's relatively strong performance on gender parity indicators reflects the government's history of national enrollment drives, scholarships for female students and the deployment of district education officers specifically charged with improving educational outcomes among girls. In addition, Ghana's development partners, particularly the United Kingdom and the United Nations, have provided robust support for female education over the past decade. More girls than boys have enrolled in kindergarten each year since 2012/13, and a modest decline in the female-to-male enrollment ratio between 2014/15 and 2015/16 indicated a shift back toward parity. Gender parity indicators have improved at all primary and secondary levels since 2013/14, and the female-to-male enrollment ratio is now above 0.9:1 at every level.

[121] "Deprived districts" are defined as those with little educational infrastructure and a high poverty index. The classification is based on the gross primary enrollment rate, gender-parity indicators, the number of seats and core textbooks per student, the share of schools needing major repairs, test scores for both English and math, primary education spending per student, the primary student-teacher ratio, and the share of qualified primary school teachers. Most deprived districts are located in one of Ghana's three northern regions. The GPEG closed on August 31, 2016.
[122] See: GPEG (2016)

FIGURE 4.7: FEMALE-TO-MALE ENROLLMENT RATIOS BY EDUCATION LEVEL, 2010/11-2015/16



Source: Ministry of Education, 2016

4.14 **A key strategic objective of the draft Education Sector Plan 2020 is to increase the rate at which JHS graduates transition to higher education levels.** The government is attempting to expand opportunities for JHS graduates to access SHS, TVET, and professional training and apprenticeship programs. The target population of 15- to 17-year-olds was estimated at 1.76 million in 2015, of which about 800,000 are already enrolled in SHS, while another 42,500 are enrolled in TVET.[123] This leaves just over 900,000 young people whom the government aims to enroll in some form of secondary or technical education.

4.15 **Ghana's tertiary education system has expanded rapidly, and enrollment rates steadily increased between 2010/11 and 2014/15.** The tertiary education system includes public and private universities, technical colleges, and specialized professional institutions. Total tertiary enrollment increased from 218,000 in 2010/11 to 321,000 in 2014/15. Private institutions account for 23 percent of tertiary enrollment, and about 40 percent of tertiary students are female. In 2014/15, the share of female students ranged from 34 percent in polytechnics to 44 percent in teacher-training colleges.

4.16 **Ghana is implementing a policy designed to expand science, technology, engineering and mathematics (STEM) education.** The government continues to make progress toward its target rate of 60 percent enrollment in STEM versus 40 percent in humanities and arts. The share of STEM enrollment rose from 34.6 percent in 2009/10 to 41 percent in 2014/15.[124] In Ghana's polytechnics, STEM enrollment grew by 89 percent in just four years. The government is encouraging both secondary and tertiary institutions to expand opportunities for STEM enrollment.

[123] EMIS, 2015.
[124] Education Sector Performance Review, 2016.

TABLE 4.6: STEM ENROLLMENT AND TOTAL TERTIARY ENROLLMENT (%)

	2010/11	2011/12	2012/13	2013/14	2014/15
Total tertiary enrollment	217,543	261,962	283,506	313,846	320,746
STEM enrollment at the tertiary level	30.7	39.1	38.4	40.0	41
STEM enrollment in public universities	34	41.4	39.1	40.2	40
STEM enrollment in polytechnics	22.8	33.8	36.7	39.4	43

Source: Ministry of Education, 2016

4.17 **Ghana hosts three African Centers of Excellence, which offer training in agriculture, STEM, and water and sanitation.**[125] These institutions are designed to strengthen the capacity of partner universities to deliver quality training and pursue applied research in areas that address regional challenges. Ghana's three centers perform better than average on indicators such as the number of doctoral and master's graduates, the share of regional students enrolled, the female enrollment rate, the number of accredited programs, the number of external internships, the number of published articles, and the amount of own-source income generated.

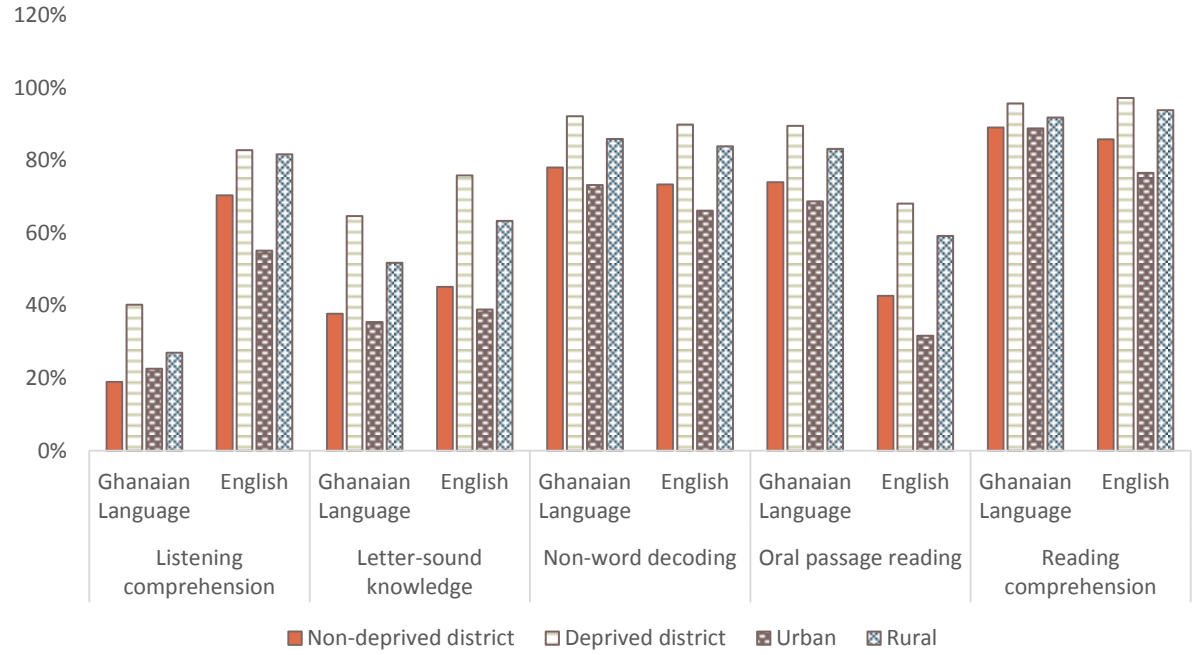
LEARNING OUTCOMES

4.18 **Students in primary school and JHS tend to perform poorly on standardized tests, especially in the country's poorer rural districts.** The 2013 Early Grade Reading Assessment (EGRA) assessed second graders' reading skills in a representative sample of over 800 public schools (with a random selection of ten students in each school) and indicated that most students in the lower grades were not learning to read in any language and that they lacked the pre-reading and early reading skills needed to build fluency and comprehension. The results of the Early Grade Mathematics Assessment (EGMA) revealed that teaching of mathematics focused on rote memorization rather than applied knowledge. In both cases, inadequate educational resources are largely responsible for students' poor testing performance.

4.19 **The unequal allocation of educational resources drives disparities in educational outcomes.** Students in non-deprived districts and urban centers performed far better on both the EGRA and EGMA than students in deprived districts and rural areas. Moreover, a much larger share of students in deprived districts and rural areas scored zero in all EGRA testing categories. The results of the Basic Education Certificate Examination confirm this pattern, as students in the Greater Accra region outperformed all other regions in mathematics, integrated science, and social studies. Students in the relatively wealthy Ashanti region had the second-highest scores, while scores were lowest among students in the impoverished Upper West and Upper East regions.[126]

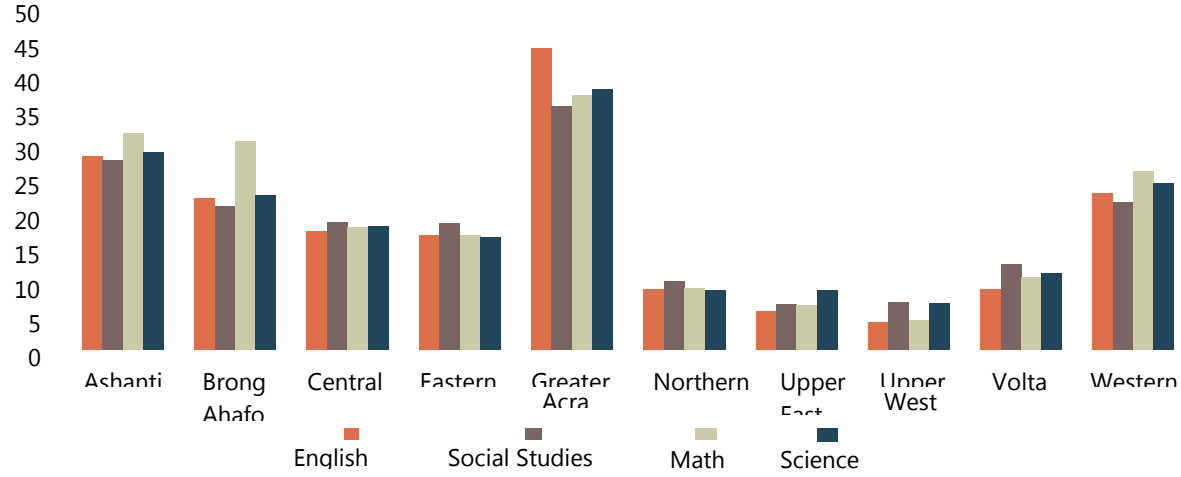
[125] These institutions receive financial support under a World Bank project.
[126] MoE, 2016.

FIGURE 4.8: PERCENTAGE OF STUDENTS SCORING ZERO ON THE EGRA, 2013



Source: EGRA 2013

FIGURE 4.9: SHARE OF STUDENTS WITH ABOVE-AVERAGE GRADES IN CORE BASIC EDUCATION CERTIFICATE EXAMINATION SUBJECTS BY REGION, 2014



Source: Ministry of Education, 2015

4.20 **The ratio of trained to untrained teachers has improved in recent years, but ensuring an adequate supply of qualified teachers remains a challenge.** As the education system has striven to provide services to an increasing number of students, the share of teachers trained at the country's education colleges and teaching universities has risen dramatically. Between 2010/11 and 2015/16, the share of trained teachers increased at all basic education levels. The biggest improvement occurred at the kindergarten level, where the share of trained teachers rose from 39 percent of all teachers in 2010/11 to 66 percent in 2015/16. At the primary level, the share of

trained teachers increased from 63 to 78 percent over the same period, while the share of trained JHS teachers rose from 78 to 90 percent.[127]

TABLE 4.7: NUMBER OF TRAINED AND UNTRAINED TEACHERS BY EDUCATION LEVEL

		2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2015/16 (%)
Kindergarten	Trained	12,260	14,198	17,070	20,118	22,934	24,869	66%
	Untrained	19,335	17,493	16,038	16,606	14,213	12,864	34%
	Total	31,595	31,691	33,108	36,724	37,147	37,733	100%
Primary	Trained	59,620	60,940	65,889	68,657	72,552	75,670	78%
	Untrained	35,307	31,033	29,016	29,082	24,163	21,411	22%
	Total	94,927	91,973	94,905	97,739	96,715	97,081	100%
JHS	Trained	51,126	55,179	60,906	65,225	67,841	70,930	90%
	Untrained	14,060	11,355	11,871	11,993	9,398	8,242	10%
	Total	65,186	66,534	72,777	77,218	77,239	79,172	100%

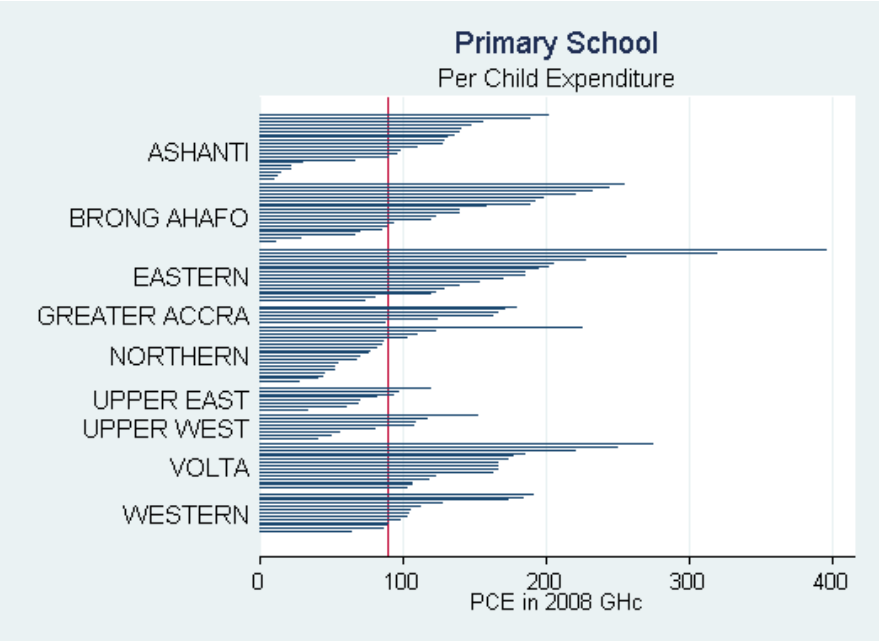
Source: Ministry of Education, 2016

4.21 **The government achieved this remarkable increase in the share of trained teachers through targeted training programs.** The government relaunched the Untrained Teachers Diploma in Basic Education program and spent GH¢ 19.5 million to sponsor the participation of 6,563 untrained teachers (2,430 women and 4,133 men) from 75 beneficiary districts. The program also received funding from the Global Partnership for Education to train teachers in remote areas of the country. Nevertheless, 34 percent of all kindergarten teachers are still untrained, as are 22 percent of all primary teachers and 10 percent of all JHS teachers. Closing these training gaps will be necessary to improve educational outcomes.

4.22 **There are huge disparities in the regional distribution and deployment of teachers.** In interviews, district directors of education in remote areas frequently cite the poverty of their communities as the main reason that trained teachers fail to report to their posts.[128] Even when controlling for the number and seniority of teachers and corresponding wage differentials, per-student spending in the country's poorer and more remote regions tends to be far below average, indicating that fewer teachers are actively deployed in these areas.

[127] MoE, 2016.
[128] Associates for Change, 2016.

FIGURE 4.10: PRIMARY EDUCATION SPENDING PER CHILD, BY REGION



Source: World Bank, 2011a

TABLE 4.8: TEXTBOOKS PER STUDENT, NATIONAL AND DEPRIVED DISTRICT AVERAGES,2010/11-2015/16

	National Average						Deprived Districts			
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2012/13	2013/14	2014/15	2015/16
Kindergarten	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2
Primary	1	0.9	1.2	2.2	2	1.7	1.1	2.1	1.9	1.6
JHS	0.9	1.1	0.9	2.2	2	1.7	0.9	2.1	1.8	1.6

4.23 **Teacher absenteeism remains pervasive, particularly in rural areas.** Inadequate supervision, poor teacher morale, and an adverse work environment contribute to high rates of teacher absenteeism, which peaked at an estimated 27 percent in 2012 before declining to a still-high 11 percent in 2014.[129] Teacher absenteeism, combined with the relatively short duration of the school year and low rates of time on task, can reduce teaching time by as much as 50 to 60 percent.

4.24 **The supply of textbooks and other educational materials has failed to keep pace with the growing number of students.** In kindergarten, the textbook-to-student ratio is 0.2:1, down from 0.4:1 in 2010/11. The ratio at the primary and JHS levels rose from about 1:1 to 2:1 between 2010/11 and 2014/15, then fell to 1.7:1 in 2015/16. Deprived districts have led the declining trend, and textbook-to-student ratios in deprived districts are below the national average at all education levels.

[129] World Bank, 2011b; Center for Democratic Development, 2012; National Inspectorate Board, 2014.

CONCLUSIONS AND POLICY OPTIONS

4.25 **The budget process for the education sector is not driven by strategic objectives, but by the overwhelming demands of the wage bill.** Despite the government's efforts to establish a performance-based budget, policymakers have been unable to improve the equity of education services, increase retention rates, or address social and geographical disparities due to the uncontrolled growth of personnel spending, which absorbs nearly all sectoral resources. While education funding in Ghana is ample by regional standards, it overwhelmingly finances wages and benefits at the expense of goods and services and capital investment. Moreover, the unbalanced distribution of the education budget undermines teaching quality and contributes to high rates of teacher absenteeism, which reduce the overall effectiveness of education spending. The wage bill leaves very little fiscal space for investments in scholarships, textbooks, teaching supplies, and educational facilities, all of which are necessary to improve education quality in Ghana.

4.26 **The authorities can expand the education sector's available fiscal space by enhancing budget management.** Consolidating budgetary responsibilities can improve strategic planning and promote expenditure efficiency, which are undermined by the sector's fragmented structure. Effective budget planning will require reliable statistics and modern information technology, and data collection should be accorded a high priority in the allocation of any new budgetary resources. Increased supervision can reduce teacher absenteeism, and adopting the measures for controlling personnel spending discussed in Chapter 3 would support more effective personnel management.

4.27 **The substantial disparities in educational outcomes between wealthier and poorer districts and between urban and rural areas reflect the skewed distribution of qualified teachers and educational resources**. Across all grade levels, schools in poor districts and rural areas have fewer qualified teachers and textbooks than their wealthier urban counterparts. This inequitable distribution of staff and resources undermines educational outcomes in disadvantaged areas, perpetuating cycles of poverty. At the sector level, the authorities could address regional disparities by launching teacher incentive programs and adopting stricter penalties for teachers who fail to report to their posts. At the district level, establishing better systems for monitoring school, teacher, and student performance—and directly linking observed indicators to system-wide targets—could greatly improve educational outcomes in poor and rural schools. Fiscal decentralization at the district level could give district education officers the discretion to hire teachers locally, terminate and replace ineffective teachers, and allocate their budgets more efficiently. While the decentralization process is ongoing, progress to date has been very slow.

4.28 **While the authorities have substantially expanded education access at the primary level, inadequate attention to education quality sharply limits students' ability to advance to the secondary and tertiary levels**. Without a comprehensive and integrated approach to skills development across all levels of the education system, primary students are often unable to successfully transition to JHS, JHS students have difficulty transitioning to SHS, and SHS students struggle to transition to tertiary institutions. Moreover, even the most capable students are often unable to access secondary and tertiary education due to an imbalance in supply across different levels of the education system. Going forward, improvements in primary education quality should be accompanied by the gradual expansion of access at the secondary and tertiary levels. In addition, strengthening the TVET system, creating new on-the-job training programs, and providing incentives to improve the effectiveness of the traditional apprenticeship system would broaden the available range of employment-focused educational opportunities. Education quality must be linked

more closely to assessments. To this end, there is a need to strengthen the National Council for Curriculum and Assessment (NACCA) and fund its activities. This would increase the likelihood that standardized tests at the pre-tertiary level are issued and evaluated regularly. It is also important that assessments are fully funded under the government budget.

4.29 **The new Government of Ghana that took office in January 2017 has embarked on a bold new policy to make upper secondary education free for all (Box 4.1).** While the goal of universal access to upper secondary education is commendable and well justified, this effort comes with significant fiscal implications and also raises a number of challenges for implementation and preserving the quality of education. An effective implementation will require more analysis about the structure of the upper-secondary education system -- including day versus boarding, how to ensure and improve quality, and allocation of teachers – to get to a universal and equitable system.

4.30 **Ghana's education system should strive to equip the country's growing labor force with the skills demanded by employers.** Ensuring that graduates possess appropriate workforce skills will require up-to-date analytical work on trends in the labor market. Further analysis will also be necessary to determine the current employment or educational enrollment status of the estimated 900,000 15- to 17-year-olds who are not in the formal secondary education system. Addressing the skills-development needs of this cohort represents a critical opportunity to enhance the productivity and employment prospects of young workers entering the labor market.

BOX 4.1: THE NEW POLICY ON UNIVERSAL ACCESS TO UPPER SECONDARY EDUCATION

In early 2017, the new government committed to providing upper secondary and technical SHS programs free of all charges (tuition in all Ghanaian public schools remains free). The proposed free SHS policy will cover costs currently borne by families, such as admission and examination registration fee, library and laboratory charges, textbooks and exercise books, teaching and learning materials, school uniforms (but not sandals), PTA, other administrative costs, as well as one meal for day students. According to the new SHS policy, the government will be expected to subsidize schools for lost revenues and may have to cover families' out-of-pocket expenditures as well. Board and meals for boarding students are already subsidized by the government.

The new SHS policy is intended to increase the demand for secondary and technical institutions towards the goal of universal access. Children from families who previously could not afford to pay for SHS will be more likely to pursue secondary education. Preliminary projections for 2017/2018 put general SHS enrollment at nearly 950,000 students, up from almost 870,000 in 2016/2017.

The goal of universal access to upper secondary education is commendable and well justified. There is evidence from Ghana and globally that upper secondary education has a significant impact on both students and, indirectly, on society and the economy—including improved employment and earnings, less early marriages and teenage pregnancies, and better child health. Thus, the impact is especially significant for girls. More of the poor could benefit from the new policy if the inequity in access to upper secondary education is also addressed, including through more equitable access to quality basic education.

Complementary investments to provide more schools, classrooms and teachers, especially of mathematics and science will be needed to ensure that the increased enrollment does not result in reduced quality. Core textbooks per student are less than one, and approximately 14 percent of public SHS classrooms require major repairs. The West Africa Secondary School Certificate Examination results indicate that quality has been declining since 2012 and demonstrate significant

regional disparities. The exam results also show that a small number of SHS schools supply over 90 percent of the higher education entrants and the rest of SHS schools produce between 60 to 90 percent of the examination fail rates. Since the high quality SHSs will likely remain selective, the bulk of the expansion would likely be channeled to the lower quality SHSs, which could lead to further increasing disparities between the elite institutions and the rest. In sum, without sufficient resources to support the new SHS policy, inequities could increase and returns to upper secondary education might decline (through both quality and supply effects).

The government has been providing targeted scholarships to needy students, especially girls. Students who receive scholarships have been able to improve their learning outcomes, access to tertiary education, and incomes and labor market outcomes, with the largest overall impact for girls (Duflo, Dupas, and Kremer 2017). The largest labor market impact was for those in vocational education. Moreover, offering scholarships motivated students in JHS to compete for a high school education. Providing free SHS without a targeting approach (such as scholarships to the needy) will mostly benefit students from the highest income families at least in the short term since enrollment is higher for this group. As the government moves toward full implementation of the free SHS policy, expanding targeted scholarships can help move incrementally to this goal by prioritizing the neediest first.

Effective implementation of the new policy could benefit from a deeper analysis of the structure of the system -- including day vs. boarding, how to ensure and improve quality, and the allocation of teachers – to get to a universal and equitable system.

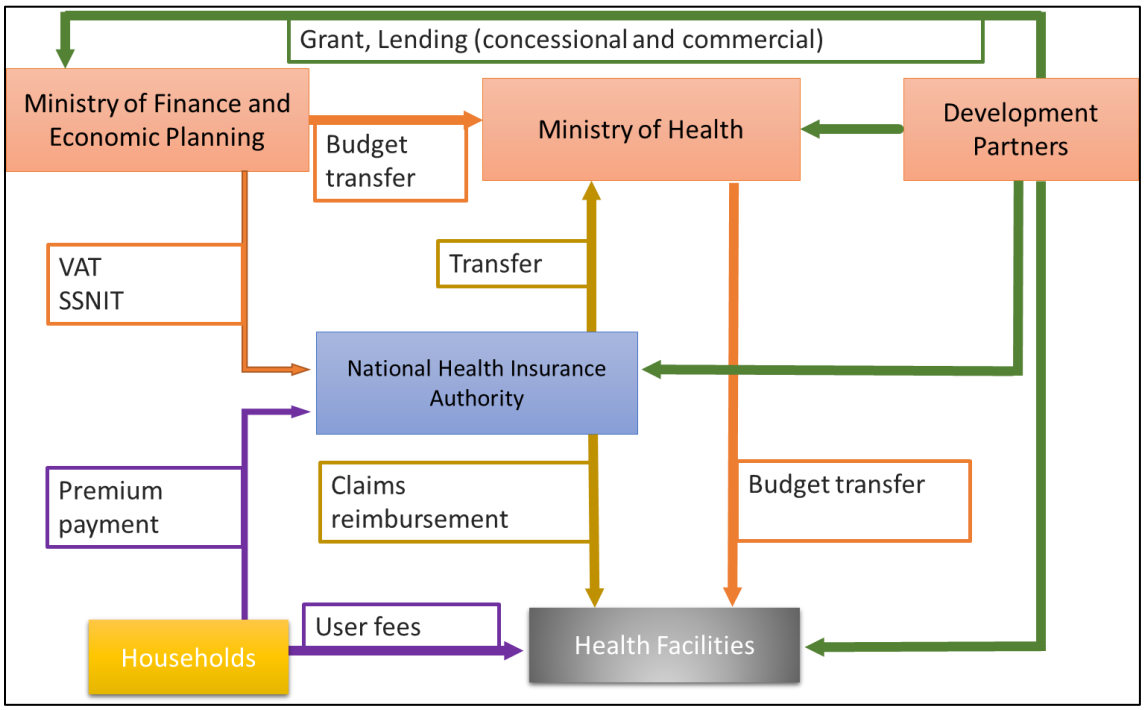
Source: http://www.ghananewsagency.org/education/free-shs-to-commence-september-2017-president-akufo-addo-113179; MOE Education Sector Performance Report 2016; Esther Duflo, Pascaline Dupas, and Michael Kremer, The Impact of Free Secondary Education: Experimental Evidence from Ghana February 9, 2017. http://economics.mit.edu/files/12682

THE HEALTH SECTOR

FINANCING

4.32 **Ghana's health sector is financed through a combination of budgetary expenditures, support from the country's development partners, and spending by Ghanaian households.** Government revenue flows to the MoH and health facilities through budgetary transfers, and a dedicated levy and deductions from the Social Security and National Insurance Trust (SSNIT) finance the NHIS, which is managed by the National Health Insurance Authority (NHIA) (Figure 4.11). Development partners provide grant support, technical assistance, and both concessional and commercial loans to the MoF, MoH, NHIA, and individual health facilities. Finally, households contribute to the health sector through premium payments to the NHIA and out-of-pocket payments at health facilities.

FIGURE 4.11. THE FLOW OF FUNDS IN GHANA'S HEALTH SECTOR

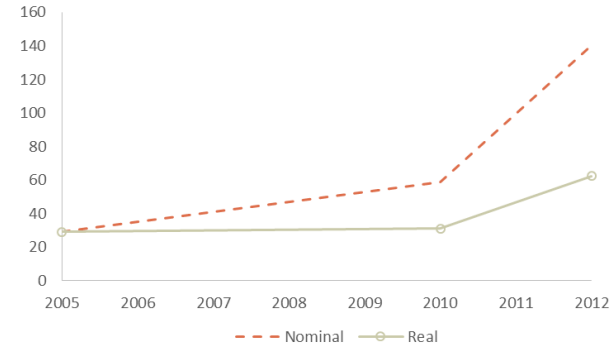


Sources: Authors' figure based on Karima *et al.* (2012).

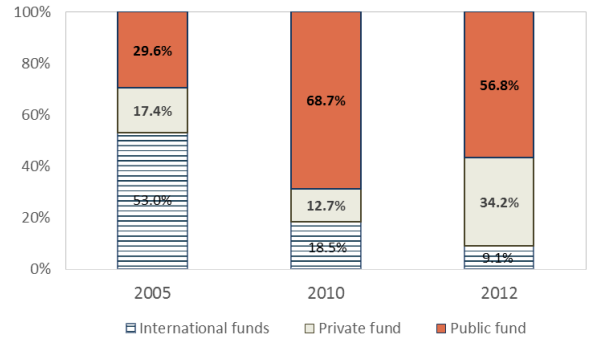
4.33 **Per capita health spending has increased over the past decade, and the mix of financing sources has moved away from donors and toward government and private funds.** Between 2005 and 2012, total per capita health spending rose from GH¢ 29 per year in 2005 to GH¢ 140 in 2012 (Figure 4.12a), as the health sector's financing sources shifted (Figure 4.12b). While in 2005 international support accounted for more than half of total health spending, the expansion of the NHIS boosted the government's share to two-thirds of total sectoral financing by 2010. From 2010 to 2012, the share of private funding—primarily out-of-pocket payments by households—almost tripled, while both government financing and external assistance decreased.

FIGURE 4.12. TOTAL HEALTH EXPENDITURES, 2005-2012

a. Total per capita health spending (GH¢)



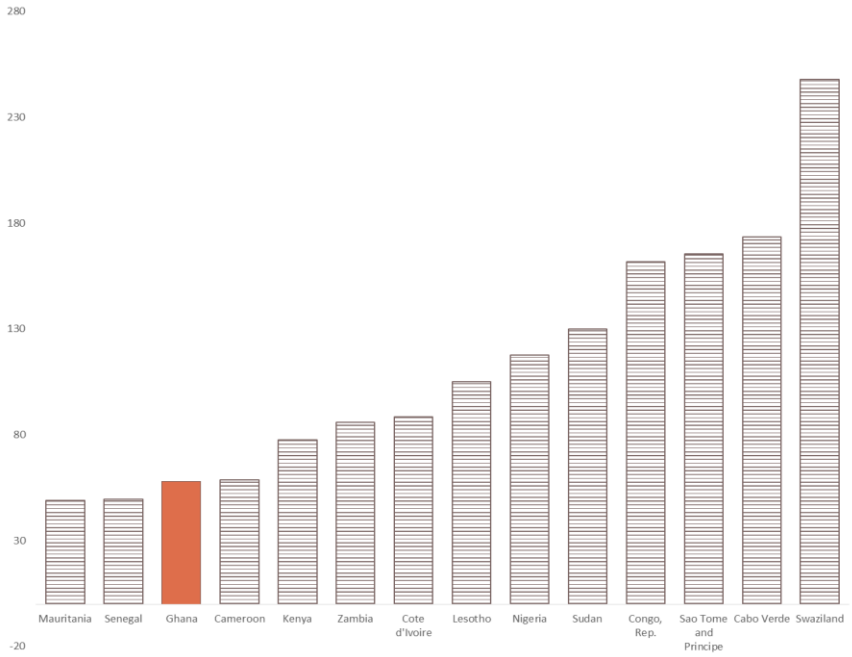
b. Total health spending by financing source



Sources: Authors' figure based on National Health Account Studies by Ministry of Health.

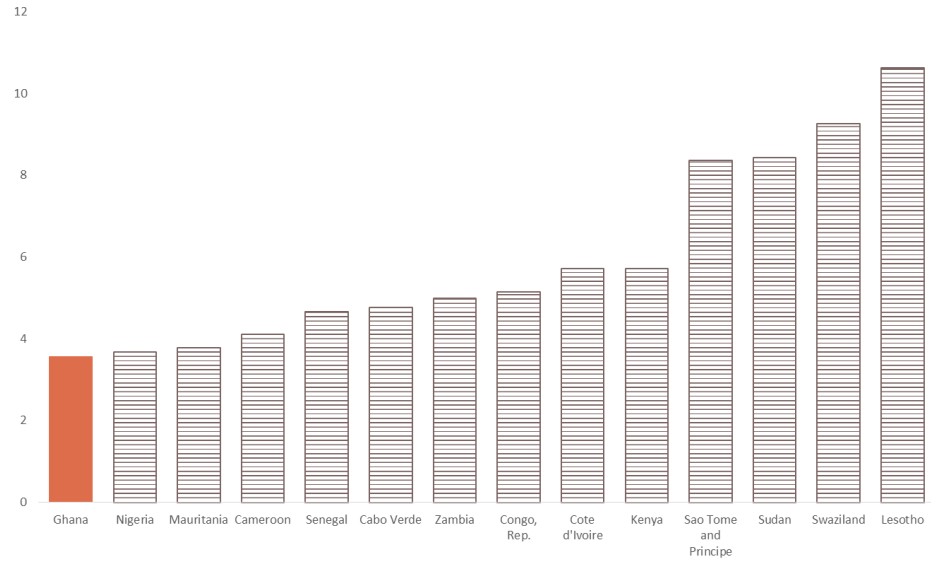
4.37 **Healthcare spending in Ghana remains low compared with other lower-middle-income countries, both in per capita terms and as a share of GDP.** As of 2014, total per capita health expenditures had reached US$58. Ghana's per capita health spending is the ninth-lowest among lower middle-income countries and the third-lowest in SSA (Figure 4.13). Moreover, the country's total health spending accounted for just 3.4 percent of GDP in 2014, the tenth-lowest share among all lower-middle income countries and the lowest share both in SSA and worldwide (Figure 4.14).

FIGURE 4.13: NOMINAL HEALTH SPENDING PER CAPITA, GHANA AND COMPARATORS, 2014



Sources: Authors' figure based on World Development Indicators data.

FIGURE 4.14: HEALTH SPENDING AS A SHARE OF GDP, GHANA AND COMPARATORS, 2014



Source: Authors' figure based on World Development Indicators data.

GOVERNMENT HEALTH SPENDING

4.38 **Government health spending via the MoH rose between 2010 and 2013, then fell in 2014.** MoH spending peaked in absolute terms in 2013 and as a share of total government spending in 2012 (Figure 4.15a). Similar to trends in the education sector, the wage bill drove the increase in the public health budget. Between 2011 and 2012, public health spending rose by 127 percent as the government implemented the SSSS and expanded public employment in the health sector by more than 25 percent. The share of MoH expenditures in total government spending reached a high of 8.5 percent in 2012, then decreased to 5 percent in 2014—the same level as in 2010.

4.39 **Personnel expenditures account for a dominant share of the MoH budget, while spending on goods and services is minimal.** Wages and benefits represented more than 90 percent of total MoH spending between 2011 and 2014, except in 2013 when a large one-time interest payment reduced personnel spending to 84 percent (Figure 4.15c).[130] At about GH¢ 83 million, goods and services expenditures represent a very small portion of MoH spending. Head offices, such as the Offices of the Minister and Chief Director, are responsible for a much larger share of these expenditures than service providers, such as the Ghana Health Services (GHS) and the Christian Health Association of Ghana (CHAG). In three out of four years for which data are available, goods and services expenditures were zero or near zero for the CHAG and below GH¢ 7 million for the GHS (Figure 4.15d).

4.40 **Public spending through the NHIS has increased over time in absolute terms while remaining broadly stable in relative terms at about 3 percent of total government spending.** Between 2010 and 2014, NHIS funding rose by 170 percent, or 43 percent per year. As MoH expenditures have fallen, public health spending has increasingly shifted toward statutory funds. As a

[130] This interest payment amounted to over GH¢ 200 million. In its absence, personnel expenditures would have again accounted for more than 90 percent of MoH spending.

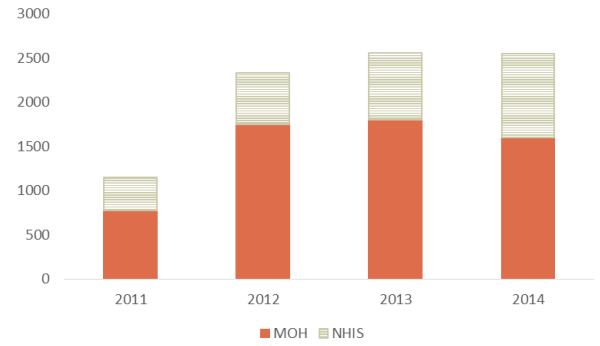
result, the ratio of MoH to National Health Fund expenditures dropped from 2.9:1 in 2012 to 1.7:1 in 2014.

4.41 **The NHIS is primarily financed through a combination of levies and SSNIT deductions, and claims payments comprise the bulk of its expenditures.** As of 2014, the national health insurance levy and SSNIT contributions represented 74 and 20 percent of NHIS revenue, respectively (Figure 4.15e and Figure 4.15f), while claims payments made up 77 percent of NHIS expenditures. Given the extremely low level of MoH spending on goods and services, NHIS claims payments now finance more than 80 percent of health facilities' operational expenses.[131] As a result, delays in reimbursement have become a major concern for NHIS health providers. There is anecdotal evidence that payment delays frequently compel providers to borrow at interest rates upwards of 25 percent to maintain their operations.

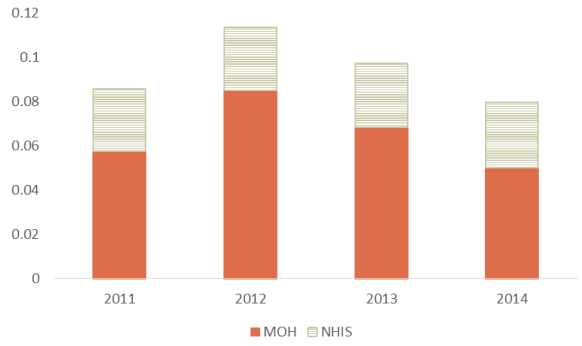
4.42 **Public capital investment in the health sector appears to be limited, though no systematic data are available.** The government spent just GH¢ 3.3 million on capital investment in the health sector in 2014, far less than the GH¢ 1.5 billion spent on wages and benefits and the GH¢ 0.9 billion spent on the NHIS.[132] A full 40 percent of public capital spending financed a single water improvement program, while 36 percent financed three training-facility projects, and 18 percent financed two maternity-ward construction projects.

FIGURE 4.15: PUBLIC HEALTH SPENDING BY THE MOH AND NHIS

a. Public Health Spending by the MoH and NHIS, 2011-14 (US$)

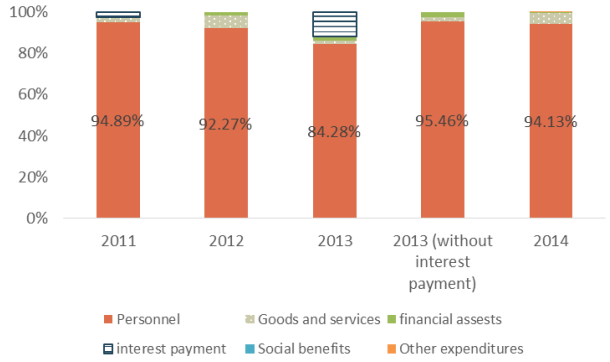


b. Public Health Spending by the MoH and NHIS, 2011-14 (% of total government spending)

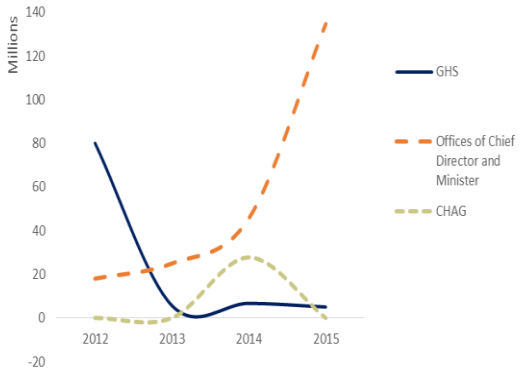


[131] This figure is based on interviews with key MoH officials.
[132] MoH, 2014.

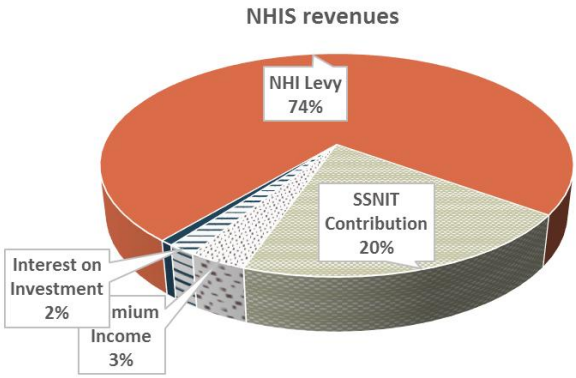
c. Composition of Public Health Spending by the MoH, 2011-14 (%)



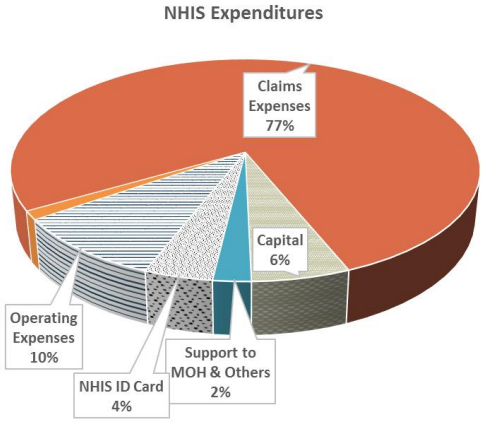
d. Government-Sourced Procurement Spending by Major Recipient, 2012-15 (GH¢)



e. Composition of NHIS Revenues, 2014 (%)



f. Composition of NHIS Expenditures, 2014 (%)



Source: Authors' figure based on Ghana Consolidated Account data and fiscal account data (2011-2015), NHIS financial statements.
Note: Actual expenditure data for 2012-14 and budget data for 2015.

Health Spending from Nongovernmental Sources

4.43 **Ghana's external development partners play an important role in financing prevention-focused public health programs in key areas, such as maternal health, immunization, and malaria control.** Although the share of donor funding has decreased, donors remain the major financing source for health-program procurements and operating expenses. According to the MoH, existing donor-supported health programs amount to GH¢ 1.1 billion. More than 80 percent of donor support comes from the United States Agency for International Development, the Global Fund, the European Union, and the World Bank. Almost all donor resources are earmarked for specific activities. Donor-financed programs executed by government agencies are based on mutually agreed-upon work plans. This includes the European Union's Accelerated Framework for the Millennium Development Goals and its associated Country Action Plan, which focus on reducing maternal mortality; the Global Fund for Malaria, Tuberculosis, HIV and AIDS; and World Bank programs supporting maternal and child health and nutrition. GH¢ 300 million in United States Agency for International Development program funding, most of which is executed off-budget, finances 40 subprograms, ranging from GH¢ 500,000 to GH¢ 18 million. Many donors reduce their support once countries reach middle-income status, and proper transition plans will be

necessary to support the government's assumption of full financial responsibility for these programs and ensure their long-term sustainability.

4.44 **The government also borrows from development partners to finance capital investment in the health sector.** In 2014, GH¢ 544.7 million, or 96 percent of total capital investment, was financed by loans and credits. As most of these loans and credits are initiated by development partners, their preferences play a significant role in project selection. Ongoing projects amount to an estimated GH¢ 6 billion, more than half of which finances projects in secondary and tertiary facilities.[133]

4.45 **The share of household spending on health services has increased in recent years.** The share of out-of-pocket spending decreased between 2005 and 2010 as government funding increased, then almost tripled from 12.7 percent in 2010 to 34.2 percent in 2012. In nominal terms, per capita out-of-pocket spending rose from GH¢ 7 per year in 2010 to GH¢ 48 in 2012. Ghana plummeted from 59th worldwide in the share of out-of-pocket spending in 2010 to 118th in 2013. Out-of-pocket spending includes self-treatment costs, NHIS premiums, copayments informally charged to NHIS members,[134] and payments for services by non-NHIS members. Aggregate data indicate that prescription drug purchases represent the majority of out-of-pocket spending.

SERVICE DELIVERY

4.46 **Progress in expanding the coverage of essential health services has been mixed.** The share of births attended by a skilled health professional has improved significantly, rising from 47.1 percent in 2003 to 73.7 percent in 2014 (Table 4.9). However, the use of modern contraceptives only modestly improved from 18.7 percent in 2003 to 22.2 percent in 2014. Immunization coverage declined slightly between 2008 and 2014, and the share of children taking antimalarial drugs was significantly lower in 2014 than it had been in 2003, prior to the establishment of the NHIS. In addition, outpatient visits increased sharply from 0.5 per capita during 2001-2006 to 1.1 per capita during 2011-2014.

TABLE 4.9: THE COVERAGE OF ESSENTIAL SERVICES, 2003-2014 (%)

	2003	2008	2014
Children fully immunized	69.4	79.0	77.3
Children with fever taking antimalarial drugs	62.8	43.0	48.5
Births attended by a skilled health worker	47.1	58.7	73.7
Use of modern contraceptives	18.7	16.6	22.2

Source: Ghana Demographic and Health Survey 2003, 2008 and 2014.

4.47 **About 3,500 public, private, and faith-based health facilities are currently operating across the country (Table 4.10).** Government facilities account for about 57 percent of the total, followed by private facilities at 33 percent and CHAG faith-based facilities at 7 percent (Figure 4.16). All health compounds and most health centers and district hospitals are government facilities, while most clinics, maternity homes and uncategorized hospitals are private facilities. One municipal

[133] MoH, 2014.
[134] This is based on anecdotal evidence, as there are no statistics on informal payments.

hospital is owned by the CHAG, one teaching hospital is private, and all other municipal, metropolitan, regional, and teaching hospitals are publicly owned. The share of private facilities varies greatly by region, ranging from 5.4 percent in the Northern region to 74.9 percent in Greater Accra (see Annex Figure 4.24).

FIGURE 4.16. DISTRIBUTION OF FACILITIES BY OWNERSHIP

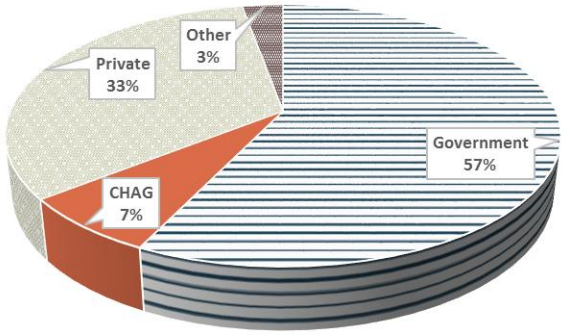


TABLE 4.10: NUMBER OF FACILITIES BY TYPE

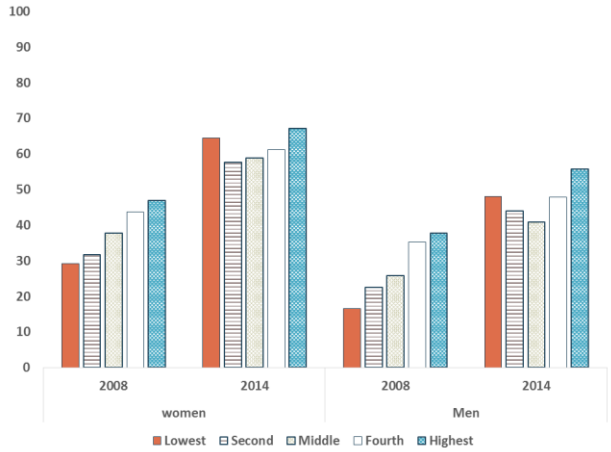
CHPS	653
Clinic	1,173
Health Center	787
Maternity Home	369
Polyclinic	16
District Hospital	82
Hospital (unidentified)	276
Metropolitan/Municipal Hospital	5
Regional Hospital	9
Psychiatric Hospital	3
Teaching Hospital	3
Other	183

Source: Authors' figure based on MoH facility inventories.

4.48 **As of February 2016, the MOH had 104,652 health workers registered on its payroll, with nurses representing the largest share of the workforce.** Payroll data are available for the MoH, government-owned facilities, and CHAG facilities, but not private facilities. 84 percent of registered healthcare workers are classified as professionals, 15 percent are administrators and 1 percent are logisticians. Nurses comprise 59 percent of all professional staff, followed by trainees (13 percent), allied health professionals (13 percent), physician's assistants (4 percent), and doctors (4 percent).

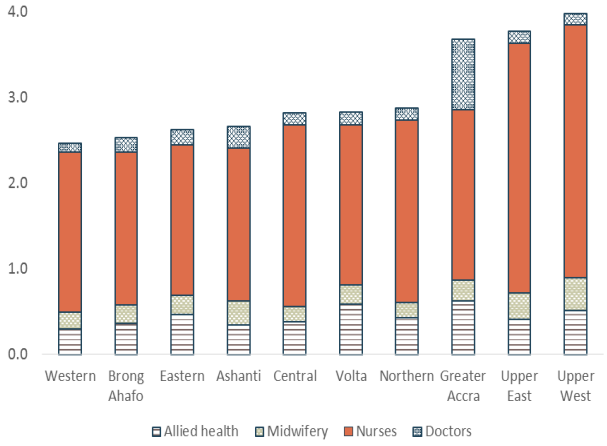
4.49 **The distribution of public health workers is broadly consistent across most regions, except for a dense concentration in Greater Accra and in the Upper East and Upper West regions.** The number of public health workers per 1,000 people is higher in the urban Greater Accra region and in the largely rural Upper East and Upper West regions than it is in the rest of the country (Figure 4.18). In all other regions, the number of health workers ranges from 2.5 and 2.9 per 1,000 people. No information is available on the distribution of private health workers.

FIGURE 4.17. HEALTH INSURANCE COVERAGE BY WEALTH QUINTILE



Source: Authors' figure based on the 2008 and 2014 Ghana DHS.

FIGURE 4.18. NUMBER OF PUBLIC HEALTH WORKERS PER 1,000 PEOPLE BY REGION, 2016



Source: Authors' figure based on MoH payroll data.

4.50 **Most pharmaceuticals are imported and distributed by the private sector and paid for through a combination of donor funds, NHIS resources, and out-of-pocket spending.** Ghana's total wholesale pharmaceutical market was valued at US$522 million in 2014.[135] The majority of pharmaceuticals are imported—60 percent by volume and 70-80 percent by value—and most domestic manufacturers can only produce low-cost generic drugs. More than 40 percent of NHIS claims payments are for medicine, and the NHIS's dependence on imported medicines leaves it vulnerable to foreign exchange risks. The MoH procurement unit has an annual budget of about US$40 million, of which US$35 million is financed by Ghana's development partners. Centralized procurement is limited to antiretrovirals, antimalarials, oxytocin, snake antivenin, rabies vaccines, and a few other special items. Over 80 percent of the pharmaceuticals dispensed by public facilities are procured directly from private distributors in accordance with the Public Procurement Act (Act 663).

THE NATIONAL HEALTH INSURANCE SCHEME

4.51 **The NHIS was established in 2003 to replace the existing user-fee-based "cash and carry" system.** The NHIS's primary objective is to ensure financial access to basic healthcare services for all Ghanaian residents by eliminating out-of-pocket spending at the point of service delivery. Between 2003 and 2012, the NHIS was governed by Act 650, which established a decentralized health insurance scheme administered by a semi-autonomous board and management team. In 2012, Act 852 recentralized the system by transforming mutual health organizations into district offices of the NHIA.

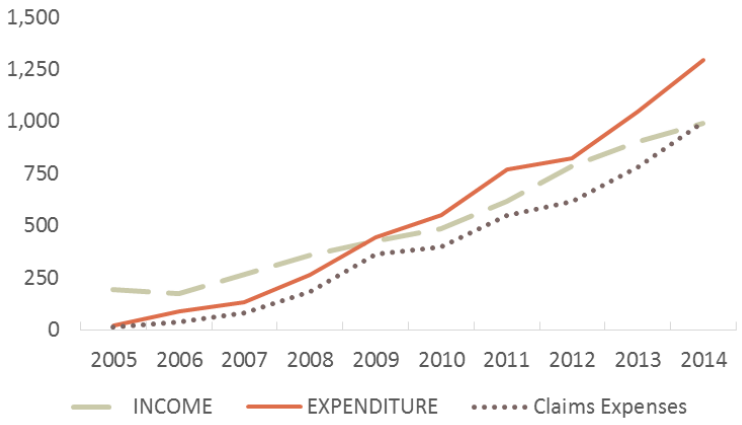
4.52 **Ghana is the only country in the world to use VAT revenue to finance 75 percent of its health insurance scheme, which presents both advantages and drawbacks.** One advantage on relying on VAT is that it ensures that the NHIS budget automatically keeps pace with the country's economic development, as reflected in the stability of NHIS funding as a share of total government

[135] IMS Health's African Insights Ghana, 2015.

spending (Figure 4.15b). Another advantage is that VAT revenue acts as an implicit government subsidy for basic healthcare. If this subsidy was made explicit, it could potentially incentivize enrollment. Using VAT revenue to fund the NHIS also allows the government to pool health-insurance financing at the national level and thereby avoid the revenue fragmentation common in most countries. However, one major drawback is that revenue does not rise as coverage expands, as more than two-thirds of NHIS members are exempted from paying premiums. Premiums typically provide less than 5 percent of NHIS revenue.

4.53 **The financial sustainability of the NHIS has become an issue in recent years.** The NHIS has run a deficit each year since 2009. While NHIS income and expenditures have both increased since 2005, expenditure growth has outpaced income growth since 2009 (Figure 4.19) due to a growing number of members combined with increasing utilization rates and weak incentives for cost-consciousness among both patients and providers.[136] Rising claims expenditures coupled with increasing out-of-pocket payments cast doubt on how effectively the NHIS is providing financial protection to Ghanaian citizens. The NHIA has responded with a strategy of cost containment, disinvestment, and borrowing. Cost-containment measures, including clinical audits and biometric registration, were put in place to enhance the financial sustainability of the scheme. The investment fund was decreased from GH¢ 447 million in 2009, or 14.8 months of claims value, to GH¢ 100.3 million in 2014, or 1.2 months of claims value. Finally, the NHIA took out loans to finance the deficit, starting with a GH¢ 100 million loan in 2011, and it began making interest payments in 2012.[137]

FIGURE 4.19. NHIS INCOME AND EXPENDITURES, 2005-2014



Source: Authors' figure based on NHIS financial statements.

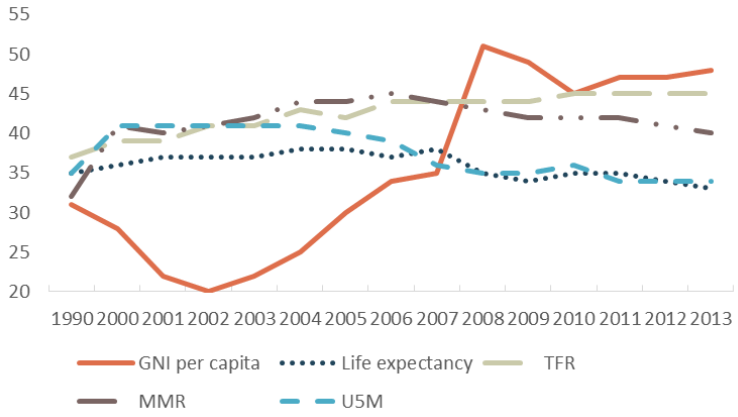
HEALTH OUTCOMES

4.54 **Ghana's progress in improving key health indicators has not kept pace with its economic development.** Ghana's per capita gross national income (GNI) increased from the bottom 20th in the world in 2002 to 51st in 2008, and since then it has remained between 45th and 49th (Figure 4.20). However, its ranking on three major health outcome indicators began to decline

[136] World Bank, 2016.
[137] NHIA Annual Reports (2001-2013).

between 2005 and 2007. By 2008, Ghana's ranking in life expectancy and under-five mortality had both dropped below their 1990 levels, and Ghana's rankings for life expectancy, under-five mortality, maternal mortality, and total fertility have all fallen below its GNI per capita ranking since 2008.

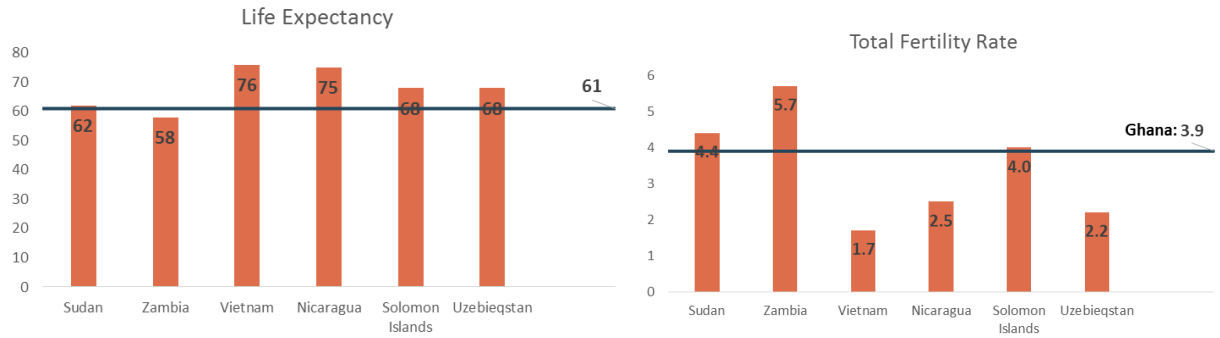
FIGURE 4.20. GHANA'S GLOBAL RANKING ON ECONOMIC AND HEALTH OUTCOME INDICATORS, 1990-2013



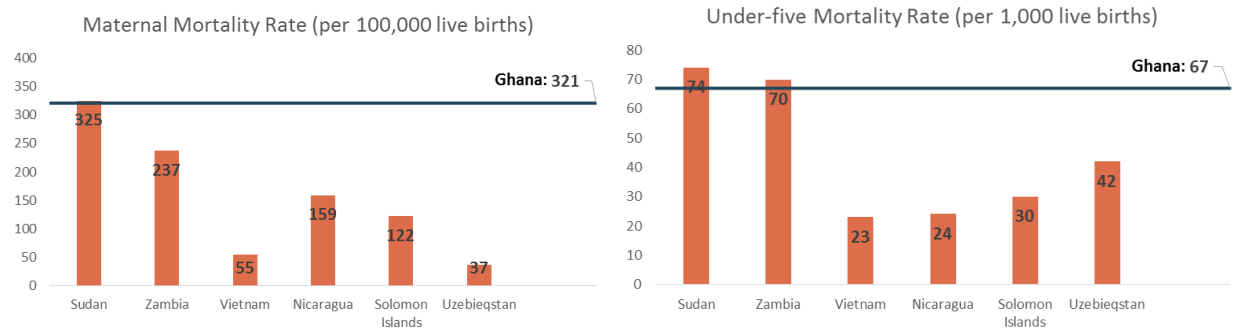
Source: Authors' figure based on World Development Indicators data.
Note: In addition to life expectancy, the indicators shown above include the total fertility rate (TFR), the maternal mortality rate (MMR), and the under-five mortality rate (U5M). Higher rankings indicate improvement relative to other countries.

4.55 **In terms of key health indicators, Ghana performs well by the standards of other SSA countries at similar income levels, but it compares far less favorably with countries at similar income levels outside of Africa.** In 2013, Nicaragua, the Solomon Islands, and Uzbekistan ranked immediately above Ghana in terms of GNI per capita, while Vietnam, Zambia, and Sudan ranked below.[138] The four non-SSA countries fared significantly better across all four indicators, except for the Solomon Islands, which had a similar total fertility rate (Figure 4.21).

FIGURE 4.21: HEALTH OUTCOME INDICATORS IN GHANA AND COUNTRIES WITH SIMILAR INCOME LEVELS



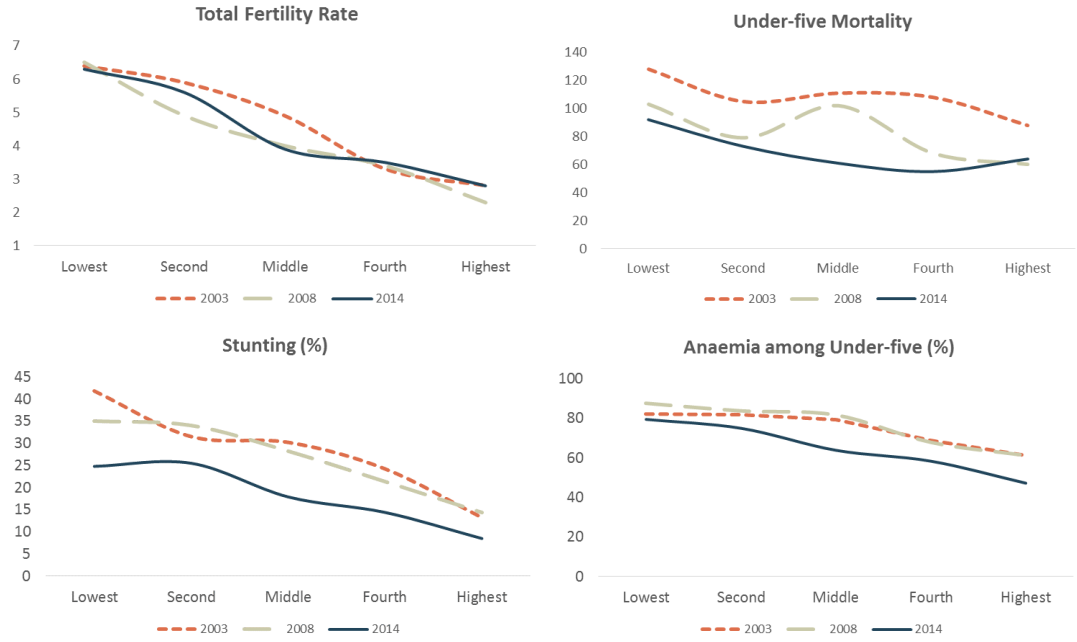
[138] GNI per capita in 2013



Source: Authors' figures based on World Development Indicators data.

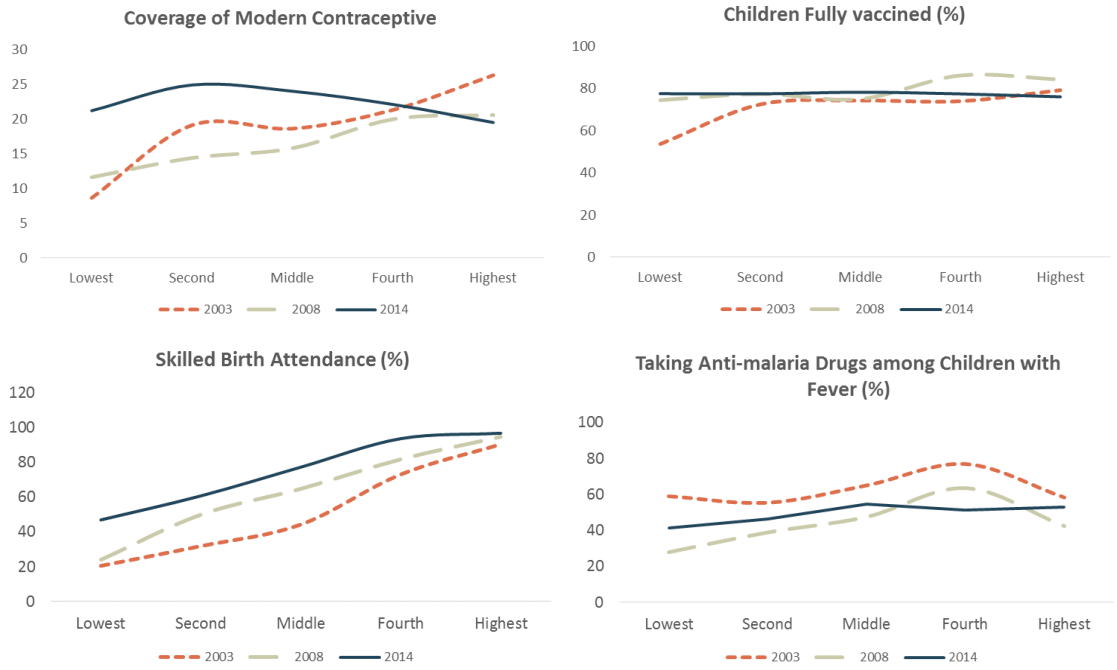
4.56 **Within Ghana, there are significant disparities in health outcomes and service utilization indicators between different income groups.** The total fertility rate among women in the lowest wealth quintile is more than double that of women in the highest quintile (6.3 vs. 2.8), the stunting prevalence is almost triple (24.8 vs. 8.5 percent), the under-five mortality rate is 44 percent higher (92 vs. 64), and anemia prevalence is 68 percent higher (79 vs. 47 percent) (Figure 4.22). Moreover, health equity has not significantly improved during the past decade, except for some modest progress in reducing stunting. Similar disparities are evident in the coverage of health services (Figure 4.23). For example, the share of births attended by a skilled health worker among households in the wealthiest quintile is more than double that of the poorest.

FIGURE 4.22: EQUITY IN HEALTH OUTCOMES, 2003-2014



Sources: Authors' figures based on data from the 2003, 2008 and 2014 Ghana DHS.

FIGURE 4.23: COVERAGE OF ESSENTIAL SERVICES BY WEALTH QUINTILES, 2003-2014



Source: Authors' figures based on data from the 2003, 2008 and 2014 Ghana DHS.

FINANCING ISSUES

4.57 **Health facilities are expected to deliver a wide range of preventive and clinical services, but they only have financial autonomy over NHIS reimbursements and out-of-pocket payments.** Human resources are deployed at the central level, and staff compensation is not linked to service quality or outcome indicators. Health facilities' financial reliance on the NHIS encourages them to focus on NHIS-covered curative services, rather than on prevention.

4.58 **The NHIS pays higher reimbursement rates to private facilities, while heavily-subsidized government-owned facilities appear to be underutilized.** The health sector's wage bill is substantial, reaching GH¢ 1.5 billion in 2014, but public health workers see an average of only 2-3 outpatients per working day. Meanwhile, a large share of NHIS claims expenditures go to private facilities, including 20 percent of claims expenditures in the Volta region. These claims are subject to higher reimbursement rates under the rationale that private facilities do not receive government subsidies and are therefore more expensive to operate.

4.59 **The government's increasing recourse to external borrowing and out-of-pocket payments to finance capital investment is increasing the fiscal burden on an already-stretched NHIS.** Ongoing capital projects currently amount to at least GH¢ 6 billion, more than half of which is devoted to secondary and tertiary facilities. Under the current system, patients tend to seek consultations and care at the most sophisticated health facilities, and hospital reimbursements are estimated to account for over 70 percent of NHIS expenditures. Without a proper referral system and appropriate financial incentives, the upgrading of secondary and tertiary facilities may further increase hospital reimbursements as a share of total NHIS expenditures.

4.60 **The NHIS offers a generous benefits package, but it does not explicitly cover cost-effective preventive services, and these services are either donor supported or underfunded.** The NHIS protects households from the financial consequences of poorly performing public health programs. Failing to implement an effective transition plan for public health programs to assume greater responsibilities when donors withdraw their support could increase the financial burden on the NHIS.

4.61 **Both government financing and out-of-pocket payments have been increasing in absolute terms.** The introduction of the NHIS and publicly financed health facilities was intended to improve access to services and provide financial protection against catastrophic health expenses. However, they have not stopped the increase in out-of-pocket payments. This raises concerns regarding the effectiveness of the NHIS in shielding households from rising healthcare costs.

4.62 **Public liabilities in the health sector have become an increasingly urgent issue for the government.** This includes both the government's commitment to international organizations (e.g., co-financing for GAVI and the Global Fund), and the NHIS's liabilities to providers in claims reimbursement. Urgent actions are required by the government to balance the financial sheet in the short term, and authorities have already started taking discretionary actions to secure GAVI co-financing. More importantly, these challenges are the result of an ineffective health financing system that lacks: a) an established mechanism to allocate resources to essential preventive programs; b) explicit incentives for providers to deliver preventive health services at good quality; c) systematic interventions to address inefficiency in the overall health sector, including in the NHIS; and d) strong accountability mechanisms to improve service coverage and health outcomes.

RECOMMENDATIONS

4.63 **Policymakers should focus on improving the allocative and technical efficiency of health spending before devoting more resources to the sector.** Health spending in Ghana is modest compared with that of other lower-middle income countries, and Ghana's outcome indicators continue to lag those of its comparators. The section on financing issues identifies major sources of inefficiency, which underscores the multidimensional challenge of health sector reform. While the government should strive to allocate greater resources to the health sector over the long term, priority should be given to developing a strategic plan for enhancing efficiency in the sector.

4.64 **Strengthening results monitoring and accountability mechanisms will be critical to improve the performance of the health sector.** The MoH spends the bulk of its resources on personnel costs, yet compensation does not reflect output or outcome indicators. All compensations are fixed and do not reflect the number of patients seen, the number of cases in which treatment protocols were followed, or even the attendance rate of healthcare workers. Introducing a system of well-designed incentives and more comprehensive accountability mechanisms at both the individual and facility level could greatly improve health outcomes at a modest fiscal cost. Actions should be taken to map out the existing system of measuring health worker performance, identify gaps, and introduce a new approach to measuring that is appropriate for the Ghanaian context. Following this, pilots should be put in place to link performance indicators to personnel compensation and insurance reimbursement mechanisms so as to reward good performance. Efforts to enhance performance monitoring, as well as link payments with performance may begin with preventive care, where performance is mostly essential and often easier to measure.

4.65 **Capital investment should be rebalanced toward primary care providers.** The implementation of the MoH capital investment plan focuses a large share of resources on hospitals and other tertiary facilities that specialize in more sophisticated and costly forms of treatment. By contrast, primary care facilities, such as health centers and Ghana Health Service Community-Based Health Planning and Services compounds, tend to deliver much more cost-effective services, but they do not receive sufficient resources for capital investment. Further borrowing to finance capital investment should be evaluated in terms of sector-wide efficiency and not solely on the basis of individual projects. The government should also encourage investors to devote more attention to basic care facilities in order to ensure the balanced development of the healthcare system.

4.66 **Policymakers should develop a strategy on how to finance preventive care that reflects the gradual drawdown of donor support anticipated over the medium term.** Most of Ghana's preventive care services, including immunization and malaria prevention and control programs, are either donor-financed or underfunded. Successful preventive care programs greatly reduce the cost of treatment, which is essential to control public health spending. As donors gradually withdraw their support from the health sector, the government will need to formulate a transition plan to assume responsibility for providing these services. Preventive services that are currently underfunded, such as the prevention of chronic diseases, should be integrated into the existing system. In order for health facilities to provide these services, sufficient resources will need to be allocated at the facility and community level, with higher level agencies providing technical support as needed. Dedicated funding mechanisms that integrate performance indicators will be crucial to ensure program sustainability.

4.67 **Finally, the NHIS should explore opportunities to increase its expenditure efficiency through strategic purchasing.** Cost-sharing rules and the design of the insurance benefits package should encourage patients to seek out more cost-effective forms of care. Building on lessons learned from the international experience, the NHIA should attempt to develop an optimal benefits package and define an explicit list of covered health services. Different cost-sharing arrangements should be designed for preventive and curative care, and for providers at the primary, secondary, and tertiary levels of the healthcare system, so that patients are encouraged to use care more cost-effectively. As outpatient consultations consume a significant portion of NHIS resources, policymakers should explore more cost-effective alternatives for delivering outpatient services, such as group sessions for health education and chronic disease management or a simplified system for acquiring pharmaceutical refills.

4.68 **Provider payment mechanisms should be designed to promote cost-consciousness and incentivize high-quality services.** The current system, in which providers pass the entire cost of care on to the NHIS and patients, does not encourage efficiency or reinforce service quality. A system in which providers share the financial risks related to service delivery would help reduce the incidence of unnecessary or inappropriate forms of care. For example, the implementation of capitation payments in Ghana should have shifted financial risk to service providers by paying them a fixed amount. However, they continue to avoid financial risks by referring patients to care outside of capitation packages, including medicine, outpatient specialty care, and inpatient care. Thus, existing payment mechanisms need to be further refined to prevent an unsustainable expenditure growth curve. In addition, provider payment mechanisms should include explicit incentives to provide preventive services, and service-quality indicators should be incorporated into the reimbursement formula, so that providers are incentivized to provide more preventive services and high quality care.

4.69 **Ghanaian citizens should be empowered to strengthen transparency and accountability in the health sector.** Currently, there is no systematic engagement with patients for them to share their experience and satisfaction with the health care system. The NHIS is supposed to be a purchasing agent for its members, but all interaction with beneficiaries ends after the enrollment stage. Patients do not regularly communicate feedback to the NHIS, and the NHIS does not routinely investigate complaints or even verify the accuracy of reimbursement claims. This lack of communication weakens service-quality incentives and creates opportunities for fraud. A strategy should be developed to empower Ghanaian citizens to be more engaged in sharing feedback to the NHIS and service providers. Mechanisms for recording patients' experiences and redressing grievances should be established at the facility level, and at GHS, MoH, and NHIS levels. Meanwhile, the NHIS should regularly assess patient knowledge about its features and services, and it should work to expand awareness of premium exemptions, the benefits package, copayment requirements, and provider payment mechanisms. Information collection and public awareness-raising are prime areas for leveraging modern information technologies, such as cellphone applications and tablet surveys.

4.70 **Additional analytical work on the financial underpinnings of the health sector and the activities of private service providers will be necessary to provide a solid foundation for further reforms.** Limited information on out-of-pocket payments and on the range and quality of services provided by private facilities inhibit an evidence-based policy dialogue. In order to develop appropriate reforms, policymakers will require more granular information on how patients spend money within the healthcare system. Finally, a comprehensive assessment of the activities of private healthcare providers—including their cost structure, clinical focus, service quality, and patient characteristics—will be essential to formulate a healthcare policy that fully leverages the strengths of both the public and private sectors.

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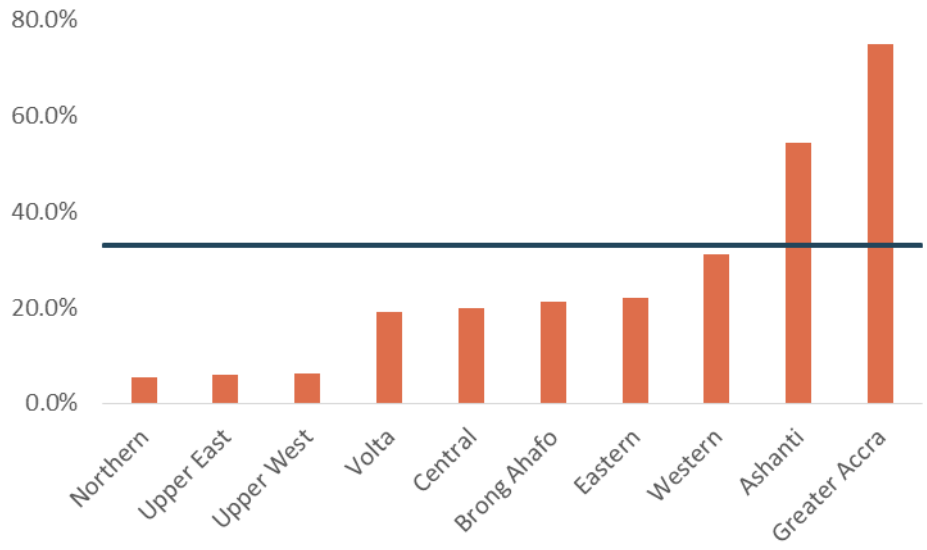
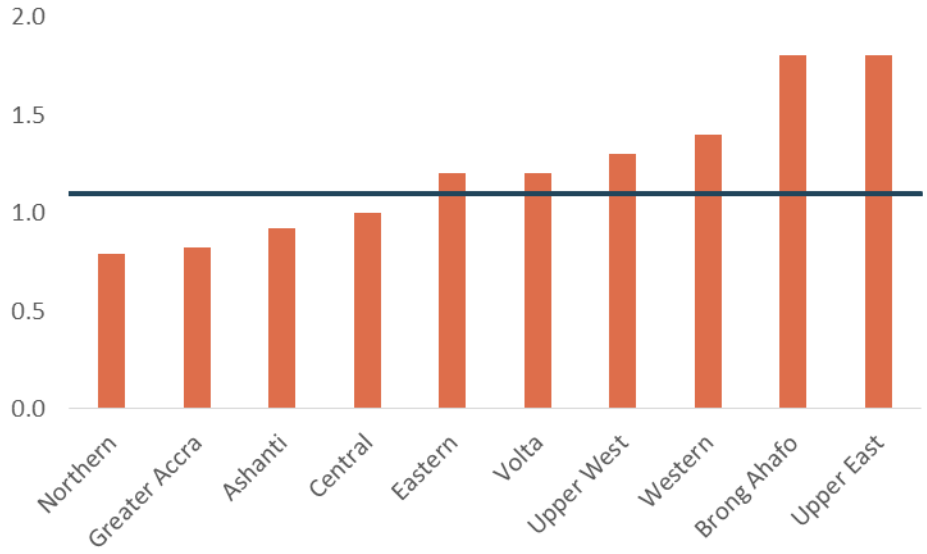
ANNEX 4.1

FIGURE 4.24 PROPORTION OF PRIVATE FACILITIES BY REGION, 2016 (%)



Source: Authors' figure based on the MoH facility inventory list.

FIGURE 4.25 PER CAPITA GHS OUTPATIENT VISITS BY REGION, 2014



Source: Authors' figure based on GHS data.

CHAPTER 5 REVITALIZING AGRICULTURAL GROWTH THROUGH ENHANCED EXPENDITURE TARGETING

Ghana's agriculture sector is crucial to the country's long-term development. Though the rapid growth of the extractive industries has diminished its relative economic size, agriculture remains vital to employment, income generation, and poverty reduction. While agriculture accounts for just one-fifth of GDP, it employs nearly half of the Ghanaian workforce and provides livelihoods for a majority of the country's poorest households. The sector also plays an important role in the trade balance. Food comprises a large share of total imports, and cocoa, the country major export crop, is responsible for 20-25 percent of all foreign-exchange earnings.

Yet despite its importance to employment, poverty reduction, and trade, Ghana's agricultural sector remains severely underdeveloped. Low yields for staple crops threaten food security, and rising food imports are weakening the current account of the balance of payments. In recent years, the growth of the extractive industries and the domestic service sector has diverted investment and labor away from agriculture. Annual production is erratic, and output growth has repeatedly failed to meet the government's target of 6 percent per year. Public spending on agricultural development is low and declining, and the Ministry of Agriculture's budget barely covers its day-to-day operations. Sectoral public investment projects tend to be extremely modest, and structural weaknesses in the project cycle diminish their impact.

In the context of Ghana's ongoing fiscal consolidation, the development of the agricultural sector presents a major opportunity to boost growth through better expenditure targeting to spur productivity growth. Agricultural research is crucial to productivity and competitiveness, yet it remains chronically underfunded. Refocusing sectoral resources on the commercialization of smallholder farming and the integration of smallholder farmers into agricultural value chains could significantly boost production. Furthermore, efforts to link smallholder farmers to markets or to aggregate production through outgrower schemes could accelerate rural income growth, and steps to eliminate price distortions that discourage investment in the cocoa subsector could boost export earnings. A new strategy for agricultural investment and policy reform that effectively targets these bottlenecks could deliver major gains in poverty reduction, employment growth, social development, and food security at a relatively low fiscal cost.

BACKGROUND

5.1 Though it comprises a relatively modest share of GDP, Ghana's agricultural sector plays a pivotal role in the country's social and economic development. Agriculture employs 45 percent of the national labor force, far more than any other sector. Rural poverty rates are well above the national average, and agriculture and other primary-sector activities, such as forestry, fishing, and animal husbandry, are critical to the livelihoods of the country's poorest households. Even in a context of structural economic transformation, inclusive agricultural growth is particularly effective in reducing poverty. While rural-urban migration is projected to continue at a rapid pace, rural areas will remain home to the majority of poor households for decades to come. Yet despite agriculture's enormous potential to accelerate poverty reduction and its critical importance to the government's social development objectives, public spending in the agricultural sector is both low and inefficient.

5.2 Agriculture is the traditional mainstay of the Ghanaian economy, though in recent years the rise of the extractive industries and the growth of the urban services sector have greatly diminished its macroeconomic profile. Prior to the start of oil production in 2011, an estimated two-thirds of Ghanaian manufacturing depended on agricultural inputs, and the sector's performance remains crucial to the competitiveness of nonoil manufacturing.[139] Agriculture represents more than one-fifth of Ghana's GDP, and agricultural exports—principally cocoa—are a key source of foreign exchange.[140] However, agricultural production is increasing slowly, and annual output is highly erratic. The agricultural growth rate dropped to just 2.4 percent in 2015, and its medium-term average growth rate is well below both the overall GDP growth rate and the government's sectoral growth target of 6 percent (Table 5.1).

TABLE 5.1: PRODUCTIVITY GROWTH RATES BY SECTOR (%)

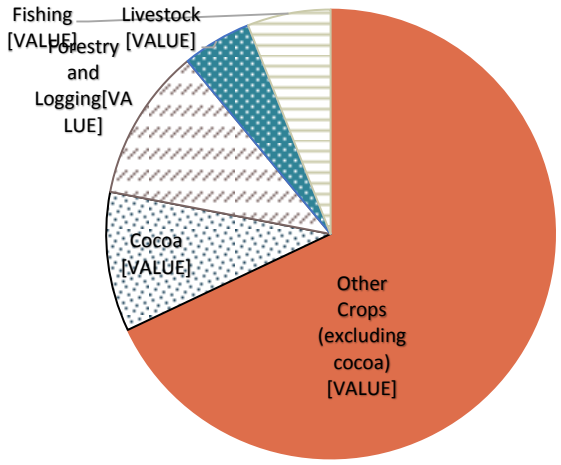
	2008	2009	2010	2011	2012	2013	2014	2015
Agriculture	**7.4**	**7.2**	**5.3**	**0.8**	**2.3**	**5.7**	**4.6**	**2.4**
Crops	8.6	10.2	5.0	3.7	0.8	5.9	5.7	2.0
of which cocoa	3.2	5.0	26.6	14.0	-9.5	2.6	4.3	-1.4
Livestock	5.1	4.4	4.6	5.1	5.2	5.3	5.3	5.3
Forestry	-3.3	0.7	10.1	-14.0	6.8	4.6	3.8	3.8
Fishing	17.4	-5.7	1.5	-8.7	9.1	5.7	-5.6	1.2
Industry	**15.1**	**4.5**	**6.9**	**41.6**	**11.0**	**6.6**	**0.8**	**1.2**
Services	**8.0**	**5.6**	**9.8**	**9.4**	**12.1**	**10.0**	**5.6**	**5.7**
GDP (total)	**9.1**	**4.8**	**7.9**	**14.0**	**9.3**	**7.3**	**4.0**	**3.9**

Note: All figures are presented in constant 2006 prices
Source: MoFA, 2015; SRID, 2015.

5.3 Crop production dominates the agricultural sector, accounting for more than 75 percent of total output, while livestock, fishing, and forestry comprise the remaining 25 percent. Ghana is the world's second-largest cocoa producer after Côte d'Ivoire, and cocoa represents over 10 percent of agricultural production (Figure 5.1). Other key crops include staple foods such as maize, cassava, and yam. While domestic rice production is on the rise, imports still meet about half of the country's rapidly growing demand.

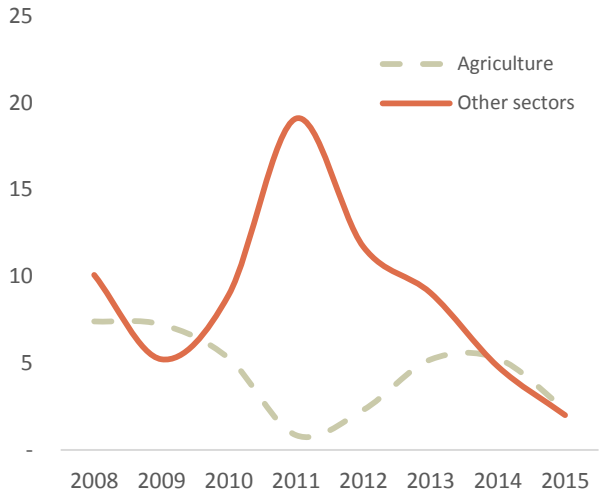
[139] World Bank, 2009; Breisinger, 2008.
[140] Statistics, Research and Information Directorate (SRID), 2015; Ministry of Food and Agriculture (MoFA), 2015

FIGURE 5.1: AGRICULTURAL PRODUCTION BY SUBSECTOR, 2014



Source: MoFA (2015)

FIGURE 5.2: AGRICULTURAL GROWTH VS. GROWTH IN ALL OTHER SECTORS, 2008-2014



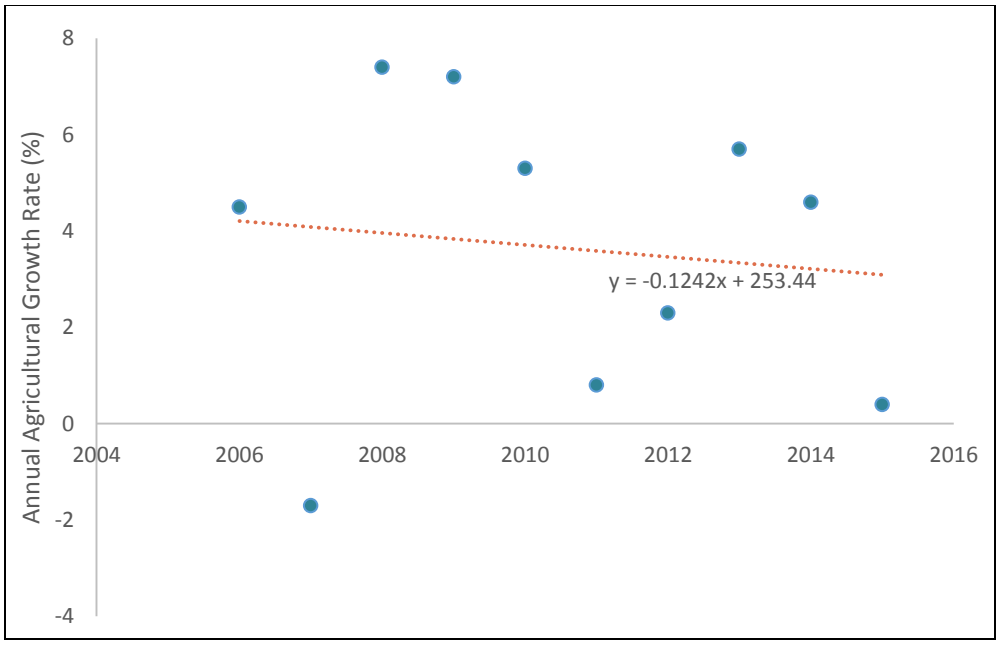
Source: SRID; World Bank data

5.4 The agricultural sector provides a critical source of employment for the 300,000-350,000 new workers who enter the Ghanaian labor force each year. The economy's fastest-growing sector—extractive industries—is highly capital intensive and employs only a small fraction of unskilled workers. By contrast, agriculture employs a huge number of unskilled workers and provides livelihoods for more than 70 percent of the rural population, including a large share of the country's poorest households. The agricultural sector will likely continue to contribute to net job growth over the medium term,[141] and improving agricultural output will remain vital to poverty reduction. In this context, the agricultural sector's slowing growth rate (Figure 5.3) raises development policy concerns that extend well beyond its immediate macroeconomic impact.

5.5 Ghana's recent poverty dynamics further underscore the importance of the agricultural sector. Following significant progress in poverty reduction over the past decade, moderate and extreme poverty rates as well as inequality have not changed in recent years.[142] Meanwhile, the international experience has shown that agricultural growth can reduce poverty in developing countries by about three times more than growth in other sectors.[143] In addition to fostering poverty reduction and inclusive growth, investments and policies designed to support agricultural productivity will be critical to facilitate the structural transformation of the Ghanaian economy and to manage the ongoing process of urbanization.

[141] World Bank, 2016a.
[142] World Bank, 2016b.
[143] Christiaensen *et al.*, 2013; Christiaensen and Kaminski, 2015.

FIGURE 5.3:ANNUAL AGRICULTURAL SECTOR GROWTH RATES



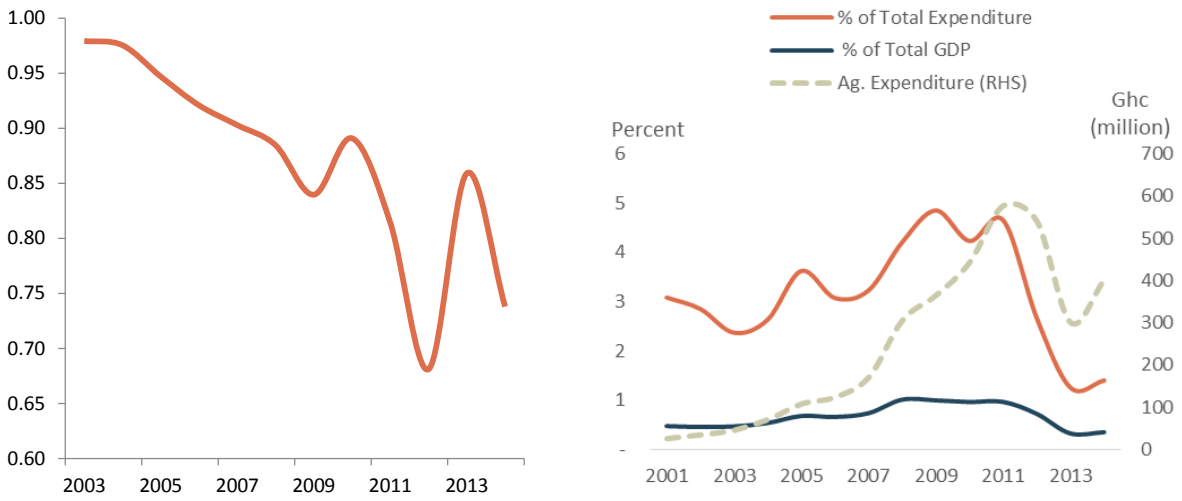
Source: Author's calculations

5.6 The rise of the extractive industries appears to be constraining agriculture sector growth. The international experience shows that the rapid growth of natural-resource exports can lead to appreciation of the real exchange rate, eroding the price competitiveness of non-resource sectors. Meanwhile, the natural resources sector tends to absorb a disproportionate share of capital and to some extend skilled labor, increasing the factor costs faced by other sectors, especially agriculture and manufacturing. As exchange rate appreciation weakens the competitiveness of domestic products in both external and domestic markets, the reallocation of productive factors to extractive industries slows productivity growth in the non-resource economy.[144] While the impact of the extractive industries on Ghana's non-resource economy has not yet been fully explored, the agricultural sector experienced a sharp deterioration in its terms of trade following the start of oil production in 2011 (Figure 5.4).

FIGURE 5.4: AGRICULTURAL TERMS OF TRADE, EXPRESSED AS THE RATIO OF THE FOOD TO NONFOOD PRICE INDICES

FIGURE 5.5:PUBLIC SPENDING IN THE AGRICULTURAL SECTOR

[144] This phenomenon is known in the literature as "Dutch disease." See, e.g., Apergisa *et al.* (2011) and Vostroknutova *et al.* (2010).



Source: Author's calculations based on SRID and World Bank data.

PUBLIC SPENDING IN THE AGRICULTURAL SECTOR

5.7 Public spending on agricultural development in Ghana is low both by regional and international standards, and spending levels have declined in recent years. While Ghana currently lacks an institutional mechanism to systematically collect, process, and publish agricultural expenditure data,[145] spending on the sector appears to have comprised just 5.2 percent of total spending between 2001 and 2014 (Table 5.2). Moreover, agricultural spending began to decline in 2007, and this trend accelerated in 2011. Nominal spending fell from GH¢ 576 million in 2011 to an estimated GH¢ 400 million in 2014, while the sector's share in total spending dropped from 4.2 to just 1.2 percent. Agricultural spending has also declined sharply relative to sectoral output, and by 2014 it equaled just 1.3 percent, far below the rates of regional comparators, such as Burkina Faso (8 percent), Ethiopia (6 percent), Uganda (5 percent), and Kenya (4 percent).

5.8 A large share of agricultural spending is devoted to the cocoa subsector. The Ghana Cocoa Board (COCOBOD) is a public corporation tasked with supporting the development of cocoa production. According to African Union directives, spending by COCOBOD should be excluded when calculating public agricultural spending. Excluding the cocoa subsector has a major impact on the estimated size of agricultural spending in Ghana, as COCOBOD's expenditures are very high relative to the value of cocoa production. For example, between 2006 and 2011, the share of public agricultural spending devoted to the cocoa subsector averaged three times the subsector's share in total agricultural output.[146] Removing COCOBOD from the equation cuts agricultural spending as a share of total spending in half, from an average of 5.2 percent to an average of just 2.6 percent over the period.

[145] The agricultural expenditure analysis presented in this chapter is based on data compiled by the MoFA in collaboration with Ghana's development partners. See: World Bank (2013); Benin (2014); and Kolavalli *et al.* (2015).
[146] See World Bank (2013).

TABLE 5.2: PUBLIC SPENDING ON AGRICULTURE, 2001-2015

	In GH¢ millions	As a percentage of		
		Total spending	Agricultural output	GDP
2001	25	5.3	1.9	0.7
2002	34	5.0	2.1	0.7
2003	45	4.6	1.9	0.7
2004	70	4.6	2.9	1.1
2005	107	6.2	3.1	1.2
2006	123	5.7	3.6	1.3
2007	170	6.1	4.5	1.5
2008	305	5.7	5.3	1.8
2009	364	4.5	5.0	1.7
2010	442	4.2	5.0	1.6
2011	576	4.2	3.6	0.9
2012	540	2.4	2.3	0.5
2013	300	1.2	1.1	0.2
2014	400	1.2	1.3	0.3

Source: Author's calculations based on IFPRI data and own best estimates

5.9 Under the 2003 Maputo Declaration, Ghana committed to allocate at least 10 percent of its national budget to agriculture by 2008. Ghana is also a signatory to the common agricultural policy of the ECOWAS, which includes similar objectives. While an earlier study by the World Bank indicated that the government had met its Maputo Declaration spending target in 2009, 2010, and 2011, lack of clarity on what should count as expenditure in the sector and the fragmented nature of the budget cast doubt on this assessment. [147] For example, in the World Bank assessment, public expenditures on feeder roads and debt servicing were counted as part of as the total public agricultural spending, counting these toward the 10 percent target. While adding these items may be justified to the extent that they are agriculture-related expenditures, their omission from the preceding years' expenditures makes the levels not comparable over time. An additional challenge stems from the weakness in public expenditure recording in Ghana's due to its fragmented nature of the budget, as discussed in Chapter 1. For example, the MoFA's 2011 agricultural spending estimate was calculated as a share of GH¢ 4.6 billion in total government spending, yet consolidated figures from the CAGD put total government spending at GH¢ 13.7 billion—roughly three times the level reported by the MoFA. Using the CAGD figures reduces the share of agricultural expenditures (including spending by the COCOBOD) from an average of 12.5 percent of total government spending to just 4.6 percent over the 2009-2011 period. In fact, some of the recent studies have indicated that Ghana may never have achieved the 10 percent expenditure target, and classification issues might be the underlying factor.[148] Furthermore, Ghana's agricultural spending was well below that of most regional comparators in 2014 (Figure 5.6).

[147] World Bank, 2013.
[148] Benin, 2014; Kolavalli *et al.*, 2015.

FIGURE 5.6: AGRICULTURE SPENDING IN SUB-SAHARAN AFRICA AS A SHARE OF TOTAL PUBLIC SPENDING, 2014

Source: World Bank (2016c) based on data from IFPRI (2015)

5.10 A large share of agricultural spending finances the MoFA's routine operating expenses. Salaries and other forms of recurrent spending account for two-thirds of the MoFA's total budget, leaving a very modest envelope for investment.[149] Since 2011, the MoFA's expenditures have risen sharply in nominal terms, even as overall spending on the agricultural sector has declined. International donors account for much of the increase in MoFA spending. Donor contributions to the MoFA rose from GH¢ 98.5 million in 2013 to GH¢ 160.1 million in 2014, while domestic public spending on the MoFA fell from GH¢ 108.2 million to GH¢ 73.0 million. As a result, donor financing expanded from 17 percent of the MoFA's budget in 2006 to over 50 percent in 2014.[150]

5.11 Donor financing plays an increasingly important role in the MoFA's investment budget. Donor funding rose from 40 percent of the MoFA's total investment expenditures in 2006 to 61 percent in 2011 (Table 5.3). While more recent figures are not yet available, this share likely exceeded 80 percent by 2014. Donor financing accounts for a smaller percentage of the MoFA's recurrent expenditures, but this has also grown over time.

5.12 Agricultural spending is poorly targeted. Major initiatives such as the Agricultural Mechanization Program, the Block Farming Program, the National Food Buffer Stock Company, and the Fertilizer Subsidy Program have produced mixed results. Moreover, these programs tend to crowd out investment in proven strategies for promoting sustainable long-term productivity growth, such as encouraging the use of improved seeds and fertilizers and expanding irrigation networks. Investment in irrigation development is especially low at about 3 percent of agricultural spending. The Ghana Irrigation Development Authority receives no investment budget from the government, which provides financing for salaries only.[151]

[149] Akroyd and Smith, 2007.

[150] In 2006, the MoFA was known as the Ministry of Agriculture.

[151] Ghana currently has less than 20,000 hectares under irrigation, and most irrigation systems are inadequately maintained. Under the World Bank-financed Ghana Commercial Agriculture Project, most irrigation schemes are being rehabilitated, and the institutions that govern the irrigation subsector are being reformed.

TABLE 5.3: MINISTRY OF FOOD AND AGRICULTURE, FINANCING COMPOSITION AND EXPENDITURE BREAKDOWN, 2006-2011

	Gov. Spending	Donor Spending	Total Spending	Investment	Current Spending	Donors Contributions (%)		
	(millions of 2001 GH¢)					Total	Capital Spending	Operational Spending
2005	101	37.3	138.3	46.1	92.2	27	49.7	15.7
2006	134.5	27.4	161.9	54.0	107.9	16.9	40.4	5.2
2007	163.7	44	207.7	69.2	138.5	21.1	45.7	8.8
2008	186.5	78.5	265	88.3	176.7	29.6	39.8	24.5
2009	156.1	97.9	254	84.7	169.3	38.5	64.7	25.4
2010	169.1	98.9	268	89.3	178.7	36.9	57.6	26.6
2011	190.3	112.4	302.7	100.9	201.8	37.3	61.2	25.4

Note: Investment is assumed to represent one-third of total spending
Source: Data in red are authors' calculations, other data are from Kolavalli (2015)

5.13 In a context of chronic agricultural underinvestment, enhancing the efficiency of sectoral spending could generate substantial gains in productivity, employment, and rural poverty reduction without compromising the government's ongoing fiscal consolidation.[152] From 2008 to 2014, real public spending on agriculture was negatively correlated with agricultural output growth (-0.39), suggesting an inefficient allocation of expenditures. Public spending on the livestock, fisheries, and forestry subsectors is far higher than their respective shares in agricultural output. Spending on cocoa exceeds its share in agricultural output by a factor of three; however, a recent study by the International Food Policy Research Institute (IFPRI)[153] concluded that the rate of return to public spending in the non-cocoa sector is significantly higher than in the cocoa sector.

5.14 The international experience reveals how better expenditure targeting can drive agricultural growth. Between the 1980s and 2000s, investment in agricultural research and development and the expansion of irrigation networks generated significant productivity growth and sustained increases in rural incomes throughout much of the developing world. In India, the government played a key role in creating a vibrant maize industry by deregulating seed imports, developing improved seed varieties, attracting private investment, and tightening linkages with consumer markets.[154] In Kenya, the robust growth of the horticultural subsector was spurred by the government's efforts to liberalize the foreign-exchange market, facilitate seed and fertilizer imports, eliminate constraints on the airfreight market, streamline customs processes and phytosanitary certification procedures, enforce intellectual property rights, and promote collaborative trade and investment strategies between the public and private sectors.[155]

5.15 Tight expenditure oversight and regular data collection are necessary to measure the effectiveness of public spending, but the MoFA suffers from critical deficiencies in both areas. The available data are not sufficient to enable a reliable analysis of the returns to different

[152] Younger, 2015.
[153] Benin, 2016.
[154] Naik, 2006.
[155] Whitaker and Kolavalli, 2006.

types of expenditures, and no information on agricultural investment by region is currently available. Ideally, the MoFA should produce spatially disaggregated time-series data showing spending on agricultural subsectors, functions, and activities in each region. Increasing investment in systematic data collection should be a priority objective of a government-wide effort to enhance information management and improve public expenditure targeting. The MoFA is currently seeking assistance from Ghana's development partners to strengthen its data-collection capacity.

ACHIEVING THE SECTOR'S GROWTH POTENTIAL

5.16 While Ghana has the potential to be a net food exporter, low productivity in the food-crop and livestock subsectors has undermined its food security. Food products have accounted for about 19 percent of total imports over the last three years, with staple grains alone representing 5 percent. A combination of population and income growth is steadily increasing demand for food, especially for more expensive foodstuffs such as meat, dairy products, and vegetables. Rapid urbanization and associated shifts in consumer preferences are also boosting demand for processed foods, much of which is currently satisfied by imports. Food demand in urban areas is projected to increase fourfold over the next 20 years.

5.17 For decades, Ghana's agricultural growth has been driven by the expansion of cultivated areas rather than by increased productivity. Ghana lags many other West African countries in terms of per hectare yields for most crops.[156] Actual yields remain far below their potential, and per-hectare productivity has been largely stagnant over time (Table 5.4). Production surveys carried out by the International Food Policy Research Institute and the US Agency for International Development have found even lower yields than the official MoFA figures, suggesting that the MoFA may be significantly underestimating yield gaps.

5.18 Despite the economic importance of cocoa, and the large share of agricultural spending devoted to it, Ghana's average cocoa yield per hectare is among the lowest in the world. The cocoa yield gap is estimated at more than 100 percent, meaning that the existing area of cultivated land could produce twice as much cocoa as it does currently. Productivity growth is constrained by the slow adoption of new technologies and limited access to inputs, especially improved seed and fertilizer. In addition to the same productivity issues that affect other crops, cocoa output is also inhibited by the unnecessarily distortive intervention of the public sector.

[156] FAOSTAT, 2016.

TABLE 5.4: ACTUAL AND POTENTIAL CROP YIELDS IN GHANA (MT/HA)

Commodity	Potential	2008	2009	2010	2011	2012	2013	2014	Actual as % of Potential
Maize	5.0	1.7	1.7	1.9	1.7	1.4	1.7	1.7	35.0
Rice (paddy)	6.0	2.3	2.4	2.7	2.4	2.5	2.6	2.7	45.0
Cassava	48.7	13.5	13.8	15.4	15.8	16.7	18.3	18.6	38.0
Yam	49.0	14.2	15.3	15.5	14.5	15.6	16.8	16.6	34.0
Sorghum	2.0	1.2	1.3	13.0	1.2	1.2	1.1	1.1	57.0
Cowpea	3.0	1.2	1.7	1.8	1.6	1.8	1.2	1.2	41.0

Source: SRID (2010, 2011); MoFA (2011, 2012, 2014)

5.19 Better expenditure targeting could enable policymakers to address key bottlenecks to agricultural productivity and competitiveness. These include: (i) inadequate research and extension services; (ii) financial constraints, especially among smallholder farmers; (iii) obstacles to accessing domestic and international markets; (iv) limited irrigation development, particularly in Ghana's semi-arid northern regions; and (v) insecure land tenure. Shifting financial and administrative resources to these five priority areas could greatly enhance the efficiency of agricultural spending.

5.20 Ghana's public agricultural research and extension system suffers from serious weaknesses. Recent analytical work has confirmed that in Sub-Saharan Africa, investment in the development and dissemination of new technologies is the primary driver of agricultural productivity growth, exerting a greater influence than all other drivers combined (Table 5.5). The Council for Scientific and Industrial Research (CSIR) is the country's leading public agricultural research and development agency.[157] CSIR operates ten food and agriculture research institutes, and it employed a total of 379 full-time equivalent researchers in 2011. The Cocoa Research Institute of Ghana, a subsidiary of the COCOBOD, employs an additional 51 full-time equivalent researchers and studies cocoa and other tree crops, such as kola and cashew. Ghanaian universities and technical schools also conduct limited agricultural research and development.

TABLE 5.5: DRIVERS OF AGRICULTURAL PRODUCTIVITY GROWTH IN SUB-SAHARAN AFRICA

Driver	Contribution to cumulative TFP growth (%)
Agricultural research and development	51
Improvement in agriculture's terms of trade with market and trade policy reform	20
Reduction in Conflict	18
Increase in farmer education	8
HIV/AIDS therapy to infected adult population	2

Source: Africa's Pulse 2016

5.21 Agricultural research tends to be highly fragmented among many small, externally financed projects with limited coordination and minimal private sector involvement. There is little contact between researchers and extension agents, and technological-adoption studies are

[157] The CSIR is part of the Ministry of Environment, Science, Technology and Innovation.

rare.[158] Research spending accounts for about 0.7 percent of agricultural output (excluding cocoa[159]), above the SSA average of 0.5 percent, but below the rates of regional leaders, such as Kenya (1.4 percent) and South Africa (2 percent), as well as the African Union target of 1 percent. Moreover, many research projects are not geared towards solving the most urgent constraints faced by farmers. In addition, human-resource constraints are serious and growing. Nearly 40 percent of agricultural researchers in Ghana are over 50 years old, and only about one-third hold doctoral degrees. Salaries consume 80 percent of the research budget, leaving few resources for investment in physical infrastructure, equipment, staff development, and information systems. It is estimated that less than 4 percent of the CSIR budget is available to finance new operations. As a result, researchers are almost totally dependent on donor funding, which is unpredictable and allocated according to donor objectives that are not necessary consistent with those of the government or with the interests of farmers.

5.22 Filling existing and anticipated staffing gaps at CSIR's institutes will require the creation of detailed human-resource development plans, including training schedules and career tracks. CSIR should prioritize doctoral-level training and mentoring programs for junior scientists. In addition, CSIR's management will need to create a more conducive work environment by developing opportunities for scientific achievement and career advancement. For example, promotion should be based on scientific merit rather than seniority. Meanwhile, raising the retirement age to 65 would slow the impending loss of senior researchers in the short-to-medium term.

5.23 There is almost no private sector participation in agricultural research in Ghana. Private firms import hybrid seeds, fertilizers, pesticides, and new livestock breeds, but Ghana lacks the strong biosafety and regulatory framework necessary to take full advantage of biotechnology and transgenics. Conducting timely evaluations of emerging genetic traits would enable them to be rapidly approved and inserted into existing commercial crop varieties. Currently, private firms that import sophisticated productive technologies tend to focus on export-oriented cash crops, such as oil palm, while technological uptake among smallholders who produce cereals, tubers, and other food crops remains limited. Adopting more stringent labelling rules would help to improve quality control along the seed supply chain, and authorities should facilitate joint ventures between multinationals and local seed companies.

5.24 Promoting technology transfer is often the most cost-effective way to boost agricultural productivity, yet Ghana has made little progress in encouraging the adoption of improved technologies. Many agricultural innovations remain underutilized despite their proven productivity benefits, such as the improved cassava varieties developed with support from the World Bank-financed West Africa Agricultural Productivity Project. Overcoming this apparent "last mile" problem by encouraging farmers to adopt existing technologies will require more effective extension services. However, these services are inherently expensive, and expanding public agricultural extension may be infeasible in the context of the ongoing fiscal consolidation. The government should therefore explore innovative strategies for encouraging private sector engagement in agricultural extension and forge new PPPs in the agricultural sector.

[158] The latest adoption study on maize dates from 1997, and no similar studies have been done for rice or cassava.
[159] Beintema *et al.*, 2014.

5.25 To expand access to private extension services, the government should develop a new framework for collaborating with agricultural input companies, distributors and dealers, transport and logistics providers, food processors and retailers, and telecom operators. Whereas public extension services are typically focused on the supply side, private services are usually driven by the quality and scale demands of agro-processors, wholesalers, and exporters. Under a fully private extension system, the costs of extension services are financed by the efficiency improvements they generate. As farmers adopt new technologies, marginal yields increase, output quality improves, economies of scale develop, and new opportunities for value-addition arise. If these efforts are successful, improved farmer productivity and the elaboration of agricultural value chains will more than offset the cost of providing extension services.

5.26 While they offer significant advantages, private extension services are not always a perfect substitute for public services, even within a single geographic area. In certain cases, PPPs may provide a superior alternative to wholly public or private systems.[160] Under one common PPP framework the government provides vouchers to farmers, who then redeem them for private training services. Subsidizing outgrower schemes in which nucleus farms transfer knowledge to smallholders is another promising option, one that is currently being pursued as part of the World Bank-financed Ghana Commercial Agriculture Project (GCAP).

5.27 Beyond marginal productivity, strengthening the resiliency of agricultural production should be a top policy priority. This includes mitigating the impact of short-term weather-related fluctuations on agricultural output and coping with the complex long-term effects of climate change. A recently completed World Bank risk assessment concluded that farming households in Ghana's northern regions are most susceptible to production and price shocks, including those caused by seasonal droughts and flooding as well as persistent increases in temperature, and that climate change is intensifying all of these risks.[161]

5.28 Promoting the adoption of drought-tolerant and fast-maturing crop varieties and improving water-management systems will enable farmers to better adapt their production methods to an increasingly unpredictable climate. The World Bank-supported Sustainable Land and Water Management Project and the West Africa Regional Fisheries Program both focus on promoting the sustainable management of land, water, and other natural resources through accelerated technology transfer. In addition, the GCAP is promoting improved rain-fed rice cultivation in the Savannah Accelerated Development Authority (SADA) zone[162] by providing matching investment grants to rice producers.

5.29 In addition to technology transfer, infrastructure investment is crucial to agricultural resilience and long-term productivity growth. Improved transportation and storage infrastructure can help reduce post-harvest losses and mitigate price volatility, and more efficient and extensive irrigation systems will be vital to increase crop yields and reduce vulnerability to weather-related shocks. However, irrigation investment currently represents just 3 percent of total

[160] Zhou and Baby, 2015.
[161] Choudhary *et al.*, 2015.
[162] The SADA zone includes the Northern Region, Upper East Region, Upper West Region and bordering districts of the Brong Ahafo Region and Volta Region. The SADA zone covers about 54 percent of Ghana's land area but is home to only 5 million people, less than 20 percent of Ghana's population. Most of the SADA zone is semi-arid. According to a 2015 World Bank Poverty Assessment, the SADA zone has a poverty rate of over 40 percent, roughly double the national average of 21.4 percent.

public spending on agriculture. Expanding irrigation access will require not only rehabilitating and modernizing public irrigation and drainage systems, but also reforming the institutions that oversee them. With support from the GCAP, the government has begun a reform program targeting the Ghana Irrigation Development Authority and the Irrigation Company of the Upper Region, accompanied by investments in the rehabilitation of existing irrigation infrastructure. Once the rehabilitation process is complete, management responsibilities will be handed over to private firms and/or local user associations depending on the size of each scheme. Irrigation development is especially crucial in the SADA zone, which has enormous potential for agricultural production that can only be exploited once adequate water resources are made available.

5.30 Ghana's largely traditional land-tenure system is not conducive to agricultural investment. Formal land registration processes remain highly inefficient, and landowners often lack enforceable titles, especially in rural areas. The World Bank is supporting a series of land administration projects designed to strengthen ownership rights by creating an up-to-date inventory of land resources and introducing a modern land-registration framework. Greater tenure security will facilitate access to land, promote investment, and reduce the frequency of land-related conflicts. Following the development of a model land-lease agreement, the GCAP is supporting the establishment of a Lands Commission database in which landowners can register land available for lease to investors.

5.31 Linking farmers to markets is essential to agricultural development and rural poverty reduction. Integrating smallholder farmers into value chains boosts income levels, encourages technology transfer, supports diversification, and facilitates agribusiness investments. GCAP attempts to leverage the benefits of integration by supporting the commercialization of smallholder farming through PPP arrangements with large agricultural investors. The project is also designed to improve smallholder productivity and tighten market linkages via the nucleus farmer-outgrower model, while building the government's investment-promotion capacity, strengthening land tenure, promoting sustainable land-access arrangements, supporting private investors through matching grants, expanding and rehabilitating irrigation networks, and promoting institutional reform in the irrigation subsector.

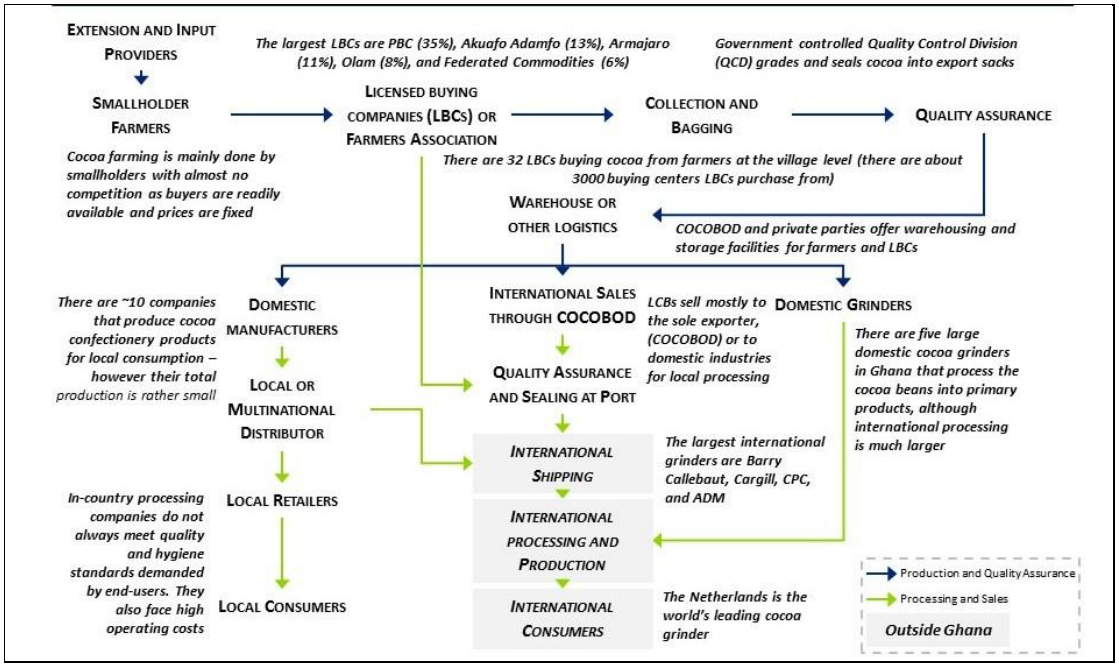
COCOA PRODUCTION AND THE GHANA COCOA BOARD

5.32 Cocoa is Ghana's most important agricultural export, yet the cocoa subsector operates far below its potential. Ghana is the world's second-largest cocoa producer and is responsible for over one-fifth of global cocoa output. The cocoa subsector accounts for about 12 percent of total agricultural value addition, 7 percent of GDP and 20-25 percent of export earnings. Cocoa is a key source of foreign exchange and the country's largest non-resource export. However, after peaking at 1 million tons in 2011-12, cocoa production seems to have plateaued at an average of around 800,000 tons per year.

5.33 Unlike other crops, the cocoa subsector operates under a controlled marketing system. The COCOBOD manages the subsector under the authority of the MoF. It controls the marketing of cocoa exports and, via its subsidiaries, it manages the input supply, conducts research, provides extension services, promotes pest and disease control, and invests in some forms of infrastructure. As a result, the cocoa value chain is unusually complicated and subject to heavy government intervention (Figure 5.7). The COCOBOD purchases cocoa through licensed buying companies, which sell primarily to the Cocoa Marketing Company, another COCOBOD subsidiary. The

subsector's current structure results from the partial privatization of a state-owned monopoly, and although the reforms that produced the current system were a positive step, the subsector's continued dominance by the COCOBOD represents a major obstacle to its growth and development.

FIGURE 5.7: THE COCOA VALUE CHAIN IN GHANA



Source: World Bank Staff

5.34 The COCOBOD's price-setting mechanism distorts economic incentives. The board sets yearly producer prices in advance of the harvest season, and the Cocoa Marketing Company sells about 70 percent of the country's cocoa exports through forward contracts. The producer price is based on a cost-plus principle, which reflects the expected export price, the operating costs of the COCOBOD and its subsidiaries, explicit taxes, and farmers' production costs. Through this system, the COCOBOD ostensibly pays producers at least 70 percent of the so-called "net free-on-board (FOB) price," which COCOBOD defines as the FOB price minus allowances for "industry costs" and "direct marketing costs."[163] Industry costs have been rising over time and are now estimated at close to 15 percent of the FOB price. Input supply programs and social programs targeting cocoa farmers make up the bulk of industry costs. Direct marketing costs include transportation, storage, and quality control. As a result, the producer price is often very different from the real FOB price (Figure 5.8), and despite the upward trend observed in recent years, the producers' share in the real FOB price is typically far below 70 percent (Figure 5.9).

[163] The term "FOB price" refers to an export's final value in the exporting country.

FIGURE 5.8: COCOA PRICES

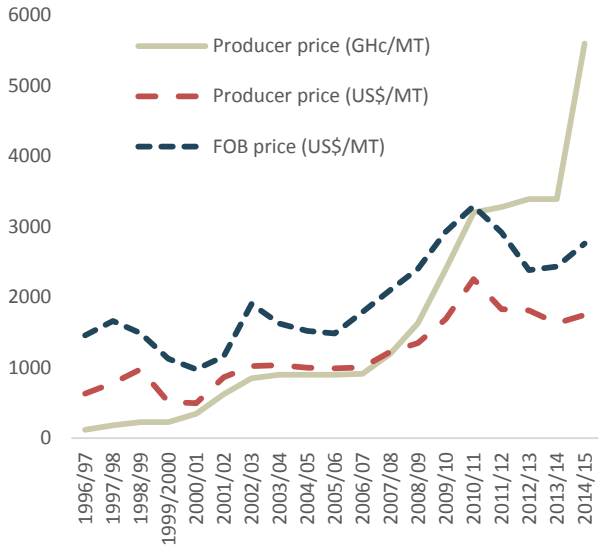
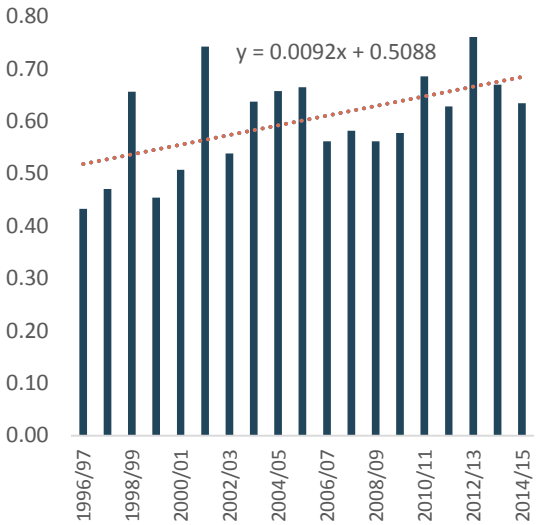


FIGURE 5.9 : PRODUCER PRICES AS A SHARE OF FOB PRICES



Source: Based on COCOBOD data.

5.35 Its limitations notwithstanding, the COCOBOD system offers several important advantages. The COCOBOD has managed to increase the share of the export price received by farmers without fully liberalizing the domestic and export markets, and the way in which internal cocoa marketing is organized assures that farmers are paid promptly. The COCOBOD's quality-control apparatus is also effective, which enables Ghanaian cocoa to command a price premium of 3-5 percent on the world market. In addition, the Cocoa Marketing Company's use of forward contracts mitigates the price and exchange-rate risks faced by buyers, though it does so by effectively transferring these risks to farmers. Finally, the Cocoa Research Institute, which is also a COCOBOD subsidiary, is among the country's most important agricultural research agencies.

5.36 The COCOBOD system also ensures that that the state receives a large share of the FOB price for cocoa exports. Even though the official tax rate on cocoa exports has fallen over time to about 3-4 percent, the government retains a substantial share of the FOB price, which is effectively a form of direct taxation. Cocoa is the only export commodity from which foreign-exchange earnings flow directly into the central bank. Although no official data are available, total direct taxation—defined as the sum of the COCOBOD's costs, industry costs, and explicit taxes—is estimated at 25-30 percent of the FOB price. The export margin in Ghana is roughly double that of Côte d'Ivoire, the world's leading cocoa exporter, and many times higher than the margins of most Asian cocoa exporters. In addition, the COCOBOD's marketing and quality-control subsidiaries have little incentive to increase their efficiency, and their shares of the FOB price have increased even as production levels have risen.

5.37 The COCOBOD is the principal supplier of fertilizers, pesticides, and seedlings to the cocoa subsector, and its dominant role in the supply chain is a source of uncertainty and inefficiency. Though often referred to as "free inputs," the cost of the inputs supplied by the COCOBOD is reflected in the prices farmers receive for their produce. Moreover, input distribution is often erratic and is subject to corruption and capricious political interference. While all farmers

effectively pay for cocoa inputs, only selected farmers receive them, and in some cases COCOBOD inputs have been illegally exported to neighboring countries.

5.38 Cocoa marketing costs in Ghana are high by international standards. Total marketing costs are estimated at between 25 and 30 percent of the FOB price. This includes direct marketing costs of about 17 percentage points, plus an estimated 8-10 percentage points to offset the COCOBOD's costs. The COCOBOD's industry-costs estimate varies significantly from year to year, but on average it represents approximately 15 percent of the FOB price. Direct marketing costs are also high due to poor road infrastructure, inefficient port handling, and costs associated with quality control.

5.39 The COCOBOD's pricing mechanism limits competition in the cocoa subsector. The fixed price that licensed buying companies pay farmers based on minimum quality standards effectively eliminates the possibility of price competition or product differentiation, and it discourages farmers from investing in quality beyond the minimum standard. Moreover, prices are uniform across the country and do not reflect regional differences in production costs or local environmental and social impacts. Yet even in the absence of meaningful price competition among buyers, farmers have benefited from a marked decrease in the corruption that characterized contract negotiations in the past, when the state was the sole buyer.

5.40 The COCOBOD has not been fully successful in promoting the development of the cocoa subsector. Specifically, the board has been unable to achieve one of its most important goals, which was to stabilize farm-gate prices at levels that permit farmers to earn an adequate return on their land, labor, and capital. Instead, successive governments have prioritized revenue collection, treating the final price received by farmers as a secondary consideration rather than an objective. Going forward, a renewed focus on price stability would help reduce the economic uncertainty faced by cocoa farmers, facilitating long-term planning and boosting productivity.

5.41 Modernization of the cocoa value chain, reform of COCOBOD's institutional arrangements including greater transparency, and improvements in the policy framework guiding the cocoa sub-sector, are essential to enhance the efficiency of cocoa production and ensure the long-term competitiveness of cocoa exports. Some necessary elements can be found back in the Ghana Cocoa Sector Development Strategy II (CSDS II) that was submitted for parliamentary approval in 2017. In particular, CSDS II explicitly recognizes the urgent need for improved management and accounting systems in Cocobod, better logistics and more efficient quality control systems, improved targeting and eventual phasing out of government input supply programs, substantial upscaling of tree improvement programs, and transforming the role of Cocobod from that of a major market player to one of enabler of certification, traceability, and inter-ministerial coordination towards improved landscape management including payments for environmental services.

CONCLUSIONS AND RECOMMENDATIONS

5.42 While the government is engaged in an important process of fiscal consolidation, and its resource envelope is limited, the current level of public funding to the agricultural sector is inadequate to achieve the government's development policy goals. Research has shown that a one percent increase in public spending on agriculture is associated with a 0.15 percent increase in

Ghana's agricultural labor productivity,[164] yet the authorities have cut agricultural spending as a share of the total budget to one of the lowest levels in Africa. Given agriculture's pivotal importance to employment, income growth, and poverty reduction, the government must reverse these trends if it is to achieve its sectoral and national development objectives, and the Medium-Term Expenditure Framework should include a strategy for sustainably increasing public spending on the agricultural sector.

5.43 Even within a limited resource envelope, better expenditure targeting can generate important efficiency gains. The budgetary dominance of current over capital spending is a major source of inefficiency. Policymakers should reevaluate the size of the current MoFA workforce and strive to shift agriculture spending toward capital investment and away from personnel costs. The most cost-effective investments are likely to be in core infrastructure, especially roads and irrigation networks, as well as technology dissemination, education, and skills development.[165]

5.44 Combined with increased funding for agricultural research, regulatory reform could facilitate the adoption of new technologies. [166] Eliminating unnecessary requirements, burdensome procedures, and other administrative barriers to testing and registering new crop varieties and improved agricultural inputs would foster private investment in agricultural research and promote the commercialization of technological innovations. In addition, clarifying and reinforcing intellectual property rights, strengthening quality assurance in seed markets, and rigorously enforcing seed-labeling rules would further support private investment in agricultural technology and the elaboration of the input value chain.

5.45 A combination of public and private investment in irrigation systems would increase cultivation intensity and bolster the agricultural sector's resilience to weather-related shocks. Climate change is increasing the unpredictability of rainfall in Ghana. Limited access to irrigation, low rates of technological uptake, and the limited use of modern production methods exacerbate output volatility and contribute to food insecurity. These trends will only intensify the vulnerability of the agricultural sector unless measures are taken to mitigate these risks, including investment in irrigation, the development and introduction of drought-tolerant and shorter-duration crop varieties—especially staple grains such as maize and rice—and improved water management techniques on rain-fed farmland.

5.46 The government's overarching agricultural investment strategy should focus on reducing unit production costs and narrowing yield gaps by increasing per-hectare productivity. In order to leverage a limited investment envelope, the authorities should continue to provide conditional support to private agricultural investors through methods such as the GCAP matching grants already in use. Similarly, establishing PPPs to provide extension services can help to maximize the productivity impact of public spending. However, the government should avoid efforts to directly organize agricultural production or to subsidize input procurement, especially in cases where public involvement crowds-out private sector activity.

5.47 When public investment targets a specific value chain, it should complement—rather than supplant—the ongoing development of the private sector. Agricultural investment should

[164] Benin *et al.*, 2009.
[165] World Bank, 2009; Seek, 2013.
[166] Asare and Essegbey, 2016.

be part of a coherent investment strategy with clearly defined and widely supported objectives. The Masara-N'Arziki maize outgrower scheme provides a positive example of how public-private collaboration can be used to foster a holistic approach to input supply, storage, and processing. However, similar initiatives in the rice subsector have been less successful, which may be due to the fact that rice is primarily grown in government-managed irrigation systems. These systems are slated for privatization, and this process could shift incentives in favor of demand-driven investment and offer new opportunities for public-private collaboration.

5.48 Refocusing the regional distribution of agricultural spending on the SADA zone could accelerate gains in output growth, poverty reduction, and rural income generation. The SADA zone is among the country's poorest regions, yet it has considerable untapped agricultural potential. Unlocking this potential will require infrastructure investments, especially improvements to the road network, which are beyond the scope of the MoFA or Ghana's other agricultural agencies. The government and its development partners should formulate a comprehensive strategy for promoting agricultural development in the SADA zone that leverages complementarities between investments in different sectors.

5.49 Land-tenure reform will be crucial to bolster private investment in Ghana's agricultural sector, and major progress in strengthening land and property rights can be achieved at a modest fiscal cost. Insecure property rights are a major obstacle to private investment in agriculture, as the difficulty of enforcing land titles discourages both the purchase of large commercial estates and private investment in physical improvements, such as irrigation networks and storage facilities. Moreover, the inability of farmers to borrow against equity is a major credit constraint.[167] While strengthening property rights is not within the immediate purview of the MoFA, the agricultural agencies can serve as important advocates for tenure reform within the public sector.

5.50 There is an urgent need to modernize the cocoa value chain in order to boost productivity and hedge against exogenous economic and climate-related shocks. Phasing-out inefficient public input-supply programs could reduce fiscal costs and create space for greater private sector participation in the cocoa value chain. Moreover, mapping cocoa farms and collecting more extensive farm-level productivity data could enhance the targeting of public sector support and help private investors identify emerging opportunities. Enhanced environmental policies and production standards would boost productivity and support the sustainability of the cocoa industry.

5.51 The COCOBOD's impact on the cocoa subsector is mixed, and reforms to its institutional arrangements and policy framework could greatly increase cocoa output with a minimal budgetary impact. The board's accounting and management information systems should be upgraded to identify inefficiencies in its operations and resolve weaknesses in the targeting of its interventions. To support long-term planning and investment at the farm level, the COCOBOD should reorient its forward-sales mechanism to guarantee minimum producer prices. The COCOBOD should also leverage PPPs to expand the provision of semi-public goods, such as extension services, technology transfer, and disease and pest control.

5.52 Greater transparency in the management of the cocoa subsector, combined with further market liberalization, will be crucial to enhance the efficiency of cocoa production and ensure the long-term competitiveness of cocoa exports. The COCOBOD should be required to

[167] Institute of Statistical, Social and Economic Research, 2015.

publish detailed information on how its price margin is calculated. Over time, the board should scale back its involvement in both the input and output sides of the supply chain. On the output side, the COCOBOD should focus on regulating a competitive purchasing process and ensuring that no single buyer exerts excessive market power. On the input side, it should cease to provide inputs directly and instead concentrate on establishing a stable and hospitable environment for private input providers. The board should periodically estimate marketing costs for cocoa, including domestic transportation, quality control and other costs, and recommend measures to lower them. Finally, the COCOBOD should coordinate the numerous programs and projects being implemented under Ghana's recently finalized Second Cocoa Sector Development Strategy.

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