NIGERIA

IFPRI

STRATEGY SUPPORT PROGRAM | WORKING PAPER 57 | September 2018

Federal government support for agriculture in Nigeria

Analysis with a public expenditure lens

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ACRONYMS

AU	African Union
COFOG	Classification of the Functions of Government
FMARD	Federal Ministry of Agriculture and Rural Development
GEA	government expenditures for agriculture
GPS	general public services
IFPRI	International Food Policy Research Institute
N or ₦	Naira (Nigerian currency)
OAGF	Office of the Accountant of the Federation
PEA	public expenditures in agriculture
TGE	total government expenditures

ABSTRACT

This paper provides a broad view of public sector support to agriculture in Nigeria, through the lens of the allocation of public expenditures by the federal government in support of the sector. We consider the adequacy and stability of agricultural public spending during the period of 2007 to 2016, drawing on data from the Ministry of Finance, the Office of the Accountant General of the Federation, and other sources.

Government expenditures for agriculture fell far short of the African Union target of 10 percent of total expenditures in every year analyzed—ranging from a low of 0.8 percent to a high of 1.8 percent, except in one outlier year (2009), when disbursements shot up to 5.8 percent. Even considering that the federal government in Nigeria is supposed to play a limited role in agriculture, as compared to state governments, these are rather low allocation shares. Public expenditures for agriculture were also volatile, but this feature is not unique to the sector—other sectors faced more dramatic instabilities that arise from features of Nigeria's public finance management system. Moreover, in addition to low budget allocation shares consistent and significant underspending of the approved budget was seen in all but two years from 2004 to 2016. Underspending reached as low as 40.7 percent. Both excess and underspending represents fiscal indiscipline. Neither is good for planning and ultimately undermines allocatively and technically efficient allocation of scarce public resources to support the sector.

Keywords: Agriculture, public expenditure, Nigeria, Africa

1. INTRODUCTION

1.1. Motivation and research question

There are multiple ways to make assessments about the nature, appropriateness, and adequacy of government's support to the agricultural sector in Nigeria as in other developing countries. In the case of Nigeria, many studies have examined specific forms of support, such as community-driven development programs for farmers (Nkonya et al. 2012), water conservation support in arid areas (Ethan and Umar 2001), or poultry disease control (Oparinde and Birol 2012). A much broader view of public sector support to agriculture, one that aggregates the diverse forms that this support can take, can be gained by examining the extent to which the government allocates its budget to agriculture. In this study, we consider the adequacy and stability of public expenditures in the sector by analyzing the trends and patterns of agricultural public spending at federal level. We compare agricultural public spending to total public spending; explore the extent to which recurrent expenditures, which finance recurring costs such as public sector salaries, and capital expenditures, e.g., construction of buildings and other capital investments, are allocated within the agricultural sector, and examine the degree to which budgets—or planned expenditures—correspond with actual expenditures carried out in support of the sector.

In the remainder of this section, we present the data and approach used, and provide an organizational background on the federal government entities supporting agriculture. *Section 2* analyses actual public expenditures in agriculture and their share in total public spending. Section 3 focuses on the budgeted amounts dedicated to agriculture. The penultimate section is concerned with the economic composition of government expenditures in agriculture. We provide concluding thoughts and policy implications in the final section.

1.2. Data, scope, and methodology

This analysis provides an overview of federal-level agricultural and other sectoral public expenditures over the past several years—primarily the ten-year period from 2007 to 2016, or a range that is one year older if 2016 data are not yet available. It covers the approved budgets and actual expenditures on key sectors, e.g., agriculture vis-à-vis health, education, etc.). This is organized according to the primary breakdown used by the federal government in preparing its financial statements. The analysis also reviews expenditure outturns against levels of the approved budgets.

Data for the analysis was obtained from financial statements of the Office of the Accountant of the Federation (OAGF) in the relevant years, augmented as necessary with budget information from the Budget Office of the Federation. The purpose of using this source for the data was to eliminate or reduce difficulties of aligning federal government budgets with actual expenditure arising from timing distortions that have become a semi-official but permanent feature of the financial year. The distortions arise from the perennial late approval of the budget. While the executive and the legislature agree to extend the fiscal year for implementing the capital component of the budget until approval of the next fiscal year's budget,[1] the fiscal year for the financial statements has remained statutorily fixed between January 1 and December 31. Thus, the budget for capital expenditure reported in any fiscal year is partly that of the preceding fiscal year and part that of the current fiscal year. It would, therefore, be misleading to make a straight comparison between the expenditure budget of a fiscal year, as approved by the national assembly, and the reported expenditure outturns of that fiscal year, as reported by the OAGF Federation. As the 2016

[1] Previously, this extended the life of the expiring budget to the end of the first quarter of the succeeding year, but in the last two or three years, it has meant extension up to the end of June.

audit report observes, “These delays have resulted in a significant misalignment between the Financial Reporting year which ends 31st December, and the budget year, which is now typically being allowed to run until the middle of the following year.”[2] This analysis assumes that the OAGF reconciles the figures during reporting to align reported expenditure outturns with their applicable approved budget.

1.3. The role of the federal government in public support for the agricultural sector

The federal government first established the Federal Ministry of Agriculture and Rural Development (FMARD) in 1966. The federal government had no mandate for agriculture before the establishment of FMARD. All aspects of agriculture were the exclusive responsibility of the then regional governments. The Federal Ministry’s mandate has changed numerous times since its inception, and on several occasions has included responsibility for water resources, natural resources, forestry, etc. The Nigerian Constitution broadly defines this scope of federal responsibility in the area to agricultural research, finance, and promotion.[3] Agricultural production is not a federal mandate under the constitution. Therefore, the federal government has no formal *direct* role in food production and related activities. These are functions of state and local governments.[4]

The Ministry elaborates on its constitutional role as involving, “growing the sector, driving income growth, accelerating food and nutrition security, generating employment and transforming Nigeria into a leading global food market, through the commodity value chain concept of the Agricultural Transformation Agenda”.[5] The ministry also “regulates agricultural research, agriculture and natural resources, forestry, and veterinary research” throughout the country. Natural resources and forestry are now mandates of the Federal Ministry of Environment. They used to be part of the one-time Federal Ministry of Agriculture and Natural Resources. It therefore is not clear that FMARD still has responsibility over them. The ministry seeks to integrate rural development into agriculture to transform the Nigerian economy, “with a view to attaining food security and positioning Nigeria as a net food exporter for socio-economic development”.

The Ministry has since stopped approaching its role in the sector as that of agricultural development. The ministry now concentrates its research, finance, and promotional efforts to treating agriculture as “a business and not as a development program”, concentrating “on value chains where Nigeria has comparative advantage”. The ministry defines its strategies for achieving these objectives as agri-business promotion, encouraging rural development, supporting private sector institutions, and broadening stakeholders’ partnership to facilitate raw materials for agro-based industries, diversifying agricultural products along commodity value chains, and generating foreign exchange earnings for the country.

FMARD has “almost fifty parastatals operating as either key departments or agencies across the country”. These include two key sets of departments: technical and services. The technical departments are agriculture (trees and crops), fisheries, livestock, land resources, fertilizer, food reserve and storage, and rural development. The forestry department is not one of these departments, but has been under the Federal Ministry of Environment since the removal of Natural Resources from the mandate of FMARD.

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[2] See Auditor General’s Annual Report on the Accounts of the Federation of Nigeria, 2016, p. 5; a copy of the audit report is downloadable from www.oaugf.ng. The audit report also observes that the perennial delays in approving the budget is a major cause of underfunding the budget, which has become pervasive. *“We noted that the uncertainty caused by delays in the passage of the annual budget further compounded the funding challenges stated above, as [government agencies] found it difficult to deliver their mandates without timely confirmation of the resources to be made available”*, p. 5.

[3] Para. 17, Part II, Schedule 2 (Concurrent Legislative List -Extent of Federal and State Legislative powers) of the 1999 Constitution of the Federal Republic of Nigeria, as amended to date. (Federal Republic of Nigeria 1999)

[4] See para. 18, Part II, Schedule 2 (Concurrent Legislative List -Extent of Federal and State Legislative powers) of the 1999 Constitution of the Federal Republic of Nigeria, as amended to date and Para. 2, Schedule IV (Functions of a Local Government Council) of the 1999 Constitution of the Federal Republic of Nigeria, as amended to date.

[5] See www.fmard.gov.ng; the remainder of this section is a summary from this website; all direct quotes are from this site, unless stated otherwise.

Similarly, irrigation has been part of the Federal Ministry of Water Resources since the renaming of the Ministry from Federal Ministry of Agriculture and Water Resources. The service departments of FMARD are finance, human resources, procurement, 'plan, policy, analysis, and statistics' (PPAS), and co-operatives. The ministry also supervises about 42 autonomous agencies. The Ministry states its workforce as of March 2015 to be 5,133 personnel, of which 1,709 were at its headquarters and 3,424 in outfield posts. It is not clear whether this number includes the staff of the parastatals.

2. GOVERNMENT EXPENDITURES IN AGRICULTURE

Before discussing the results of the data analysis, it needs to be noted that the published expenditures do not strictly conform to the COFOG (Classification of the Functions of Government) definition of agriculture expenditures nor to its modification by the African Union (AU) under the Comprehensive Africa Agriculture Development Program. Nigeria's definition of agriculture expenditures excludes some qualifying expenditures, e.g., production forestry expenditures, which are under the Federal Ministry of Environment, and irrigation expenditures incurred by the Federal Ministry of Water Resources. In addition, the federal government counts expenditures of the three Federal Universities of Agriculture as agriculture expenditures from fiscal year 2018. This follows the recent transfer of jurisdiction over the universities from the Ministry of Education to that of Agriculture in the hope of improving agricultural productivity. The management of the universities is not counter to the COFOG and AU classification of agricultural expenditures, but treatment of their expenditures as qualifying agricultural expenditures creates a variation to the COFOG/AU's definition.

The OAGF financial statements did not report donor funding (grant or credit) prior to fiscal 2012, when the financial statements included disclosure statements on actual donor receipts on project support, but not the budgeted aspect. Budgeting of donor expenditures was not yet a feature of budgeting then. This commencement of disclosures on actual donor-funded expenditure was part of the transitional measures towards the adoption of full IPSAS (International Public Sector Accounting Standards) cash basis of accounting in fiscal 2014 and accrual basis in fiscal 2016.

2.1. Actual Federal Government Expenditures for Agriculture, 2004 to 2016

Average federal government disbursements to agriculture between 2004 and 2016 were 47.97 billion Naira.[6, 7] The disbursement varied widely between its lowest figure of 7.35 billion in 2004 and its highest of 159.28 billion Naira in 2009 (Figure 1).[8] The pattern of disbursements mirrors the level of commitment of the respective administrations to agriculture. Generally, all the administrations increased investments in agriculture, but their approaches differed, as discussed below. The various emphases on agriculture follow the recognition of successive administrations and key international financial institutions of the dangers of overdependence on a natural resource-based monolithic-economy and their devising of policies to diversify

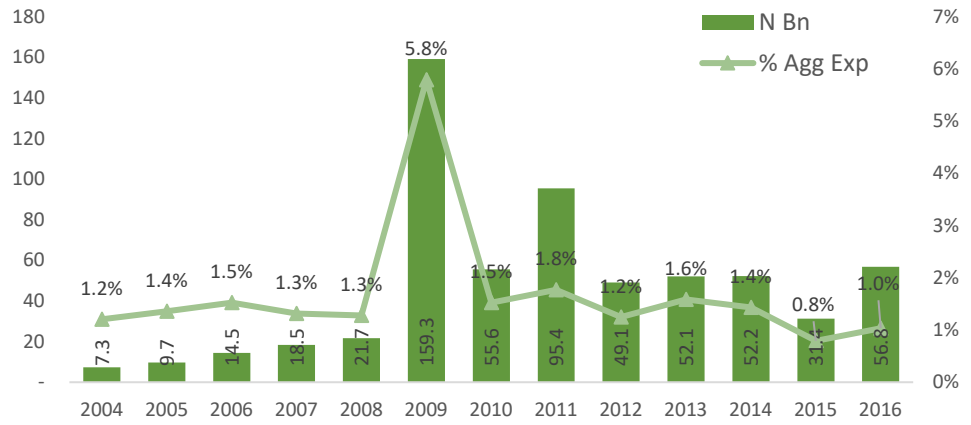
[6] The AU prefers the use of "government expenditures for agriculture (GEA)" terminology over "Public Expenditures in Agriculture (PEA)", because estimation of PEA requires a lot more information than is readily available in most African countries. For example, PEA would include inclusion of expenditure data on entities such as state-owned enterprises and donor technical assistance, usually paid for directly by the development partner. The use of GEA also simplifies comparison between countries. See CAADP/NEPAD 2015, p. 5.

[7] This analysis uses nominal Naira values throughout, given strongly conflicting deflator values published by the Nigerian Bureau of Statistics. Therefore, this paper, while presenting in some cases non-normalized nominal values over time, primarily discusses time trends only for normalized public expenditures (e.g. expenditure shares, execution rates, etc.) where interpretation of nominal values over time is more meaningful.

[8] However, the annual changes in disbursements were not uniform during the period, dividing roughly into two time episodes - pre and post 2009, as discussed in following paragraphs.

the economy.[9] The respective administrations and Nigeria's development partners also agreed that agriculture was pivotal to any successful effort at diversifying the economy away from oil, given the sector's potential for job and wealth creation. Over the years, diagnostic studies have repeatedly implicated poor funding of agriculture across all government levels – local, state, and federal – in the inability of the sector to realize its potential. The studies have, therefore, always recommended significant improvement in funding for agriculture in both quantity and quality, among other measures, to enhance agricultural productivity. For instance, various IFPRI-led studies have pointed out the low level and poor quality of investments in the sector.[10] The disbursements shown in Figure 1 underlies the actualization of respective federal government administrations to these policy recommendations.[11]

Figure 1: Actual federal government disbursements to agriculture, billions of Naira and percent of total disbursements



Data source: Audited Financial Statements from the Office of the Accountant-General of the Federation (OAGF)

However, the pattern of disbursement reveals two timelines that correspond to different policy responses to different challenges. Close observation of Figure 1 shows two different funding patterns, pre- and post-2009. Disbursements to agriculture rose annually pre-2010. Fiscal 2007 and 2008 also witnessed a significant increase, although not as high. The increase in 2009 was dramatic. This is not only evident in the absolute nominal increases, but also in the share of funding going to agriculture. The driving factor in these increases was the view of pre-2010 governments that agriculture was primarily a development activity, with the public sector at the center of activity, leading any private sector participation in agricultural production. Thus, government controlled the key activities of research, development, and adaptation, extension services, and input (seeds, chemicals, and fertilizers) procurement and distribution. Policies on agro-processing, marketing, agricultural finance, and fiscal incentives were not optimally coherent. For instance, fiscal policies centered mostly on inefficient use of subsidies and tariffs to encourage local production and discourage imports. The pattern of financial disbursements in this era underscores government's choices or policy response to the challenges of agriculture.

Implementation of pre-2009 agricultural policy was mostly through 'Presidential Initiatives on Agriculture', introduced in 2003. The presidential initiatives were special intervention programmes aimed at boosting agricultural production in select areas. The initiatives include those on rice, cassava, vegetable oil, tree crops, rubber, indigenous tropical fruits, cotton, cocoa, maize, livestock, etc. The initiatives did not

[9] The international institutions critical of Nigeria's overdependence on oil include the World Bank, the International Monetary Fund, and the African Development Bank.

[10] Examples include two IFPRI-led quantitative agriculture sector public expenditure analyses of 2008 and 2014.

[11] This statement is a positive finding of fact, which makes no value judgment on the adequacy of the level and quality of funding for the sector.

invest directly in agricultural production, but comprised specific promotional and supportive activities aimed at increasing private sector investment in those areas. Notwithstanding this, the overarching agriculture policy of the time viewed agriculture as a development activity in which the government played a central role.

The huge allocation in 2009 was the special response of the then President, Umaru Musa Yar'Adua, to boosting the performance of agriculture, a key political campaign promise of his. The allocation was to ensure adequate supply of key agricultural inputs – improved seeds and seedlings, chemicals, and fertilizers – at affordable prices to the farmer. To the government, the problem of low productivity was that of low farmer access to quality inputs, especially fertilizers, but also including seed and agro-chemicals. The government response was a massive increase in direct government intervention through the procurement and sale of inputs and supplies to farmers at highly subsidized prices. However, the policies did not deliver the results hoped for and faced problems of inefficiencies in government procurement and distribution. This occasioned a policy change, post-2009.

Post-2009 policies introduced a new paradigm to agricultural development, which aimed at addressing the foregoing shortcomings and reversing the policy of agriculture as a development activity. In 2010, the government began to review its role in agriculture and concluded by declaring agriculture as a private-sector economic activity. The government's role in the sector would be the same as in other economic activities, e.g., industry, manufacturing, services, etc. This role entails policy setting and regulation and creating the right environment for capital inflow to the sector and for private enterprise to thrive. The government, thus, began to open up the space for the private sector to lead in input delivery services, research, extension, processing, and marketing. The government eventually formalized these policies in the Agricultural Transformation Agenda, launched in 2011. Post-2009 disbursements to agriculture also reflected the new paradigm shift, as an earlier IFPRI study shows.[12] Disengagement from direct participation in input procurement and distribution and reform of the seed policy, etc., meant that the government did not have to vote huge sums for subsidies on fertilizers and other inputs, for instance. The 2009 level of funding, therefore, did not continue.

2.2. Agriculture Share of Aggregate Federal Government Expenditures

Africa Union Targets

Actual federal government expenditure for agriculture (GEA) did not approximate the AU target in any of the years from 2004 to 2016, notwithstanding the special performance of 2009. Expenditure outturns in the sector averaged 1.7 percent of total government expenditures (TGE) in the period. The highest level of performance of 5.8 percent occurred in 2009. The share of GEA was as low as 0.8 percent in 2015. Apart from 2009, the highest levels of performance occurred in 2011 at 1.8 percent, 2013 at 1.6 percent, and 2006 at 1.5 percent (Figure 1). The pre-2010 allocations average 2.1 percent of total government expenditures, while the post-2009 allocations represent only 1.3 percent. The African Union target is for member countries to raise public investment in agriculture to a minimum of 10 percent of their national budgets and to aim to achieve real agricultural productivity growth of 6 percent annually. African heads of state (including Nigeria's) first pledged to work towards this target in the Maputo Declaration of 2003[13] and reinforced the pledge in the Malabo Declaration of 2014.[14] The pattern of expenditures shown in Figure 1

[12] Credit for this paradigm shift goes to Dr. A.A. Adesina, who served as Nigeria's Minister of Agriculture and Rural Development from 2010 to 2015.

[13] See the AU 2003 Maputo Declaration on Agriculture and Food Security, http://www.dirco.gov.za/diaspora/docs/audecision/decissionsassembly10-12July202003maputomozambique.pdf.

[14] See "Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods Malabo, Equatorial Guinea , June 26-27, 2014 http://www.resakss.org/sites/default/files/Malabo20Declaration20on20Agriculture_2014_112026-.pdf.

suggests that the federal government has not been working towards achieving that target since adopting it in 2003.

However, the federal government's investments do not constitute the entirety of Nigeria public investments in agriculture, given the limited constitutional role of the federal government in the sector. An accurate accounting for expenditures in the sector would consolidate expenditures of federal, state, and local governments, since each has constitutionally defined roles in the sector. Thus, the federal government is responsible for agricultural research, finance, and promotion;[15] state governments for "agricultural development";[16] while local governments are to participate with their parent state governments in "the development of agriculture and natural resources, other than the exploitation of materials".[17] All the governments make expenditures for agriculture.

Notwithstanding this, studies have established that low public spending on agriculture cuts across the three tiers of government. For example, the 2014 IFPRI Agriculture Public Expenditure study found that budgeted and actual allocations to agriculture respectively averaged 1.2 and 0.9 percent of the budgeted and actual TGE between 2008 and 2012 in Cross River state. The corresponding figures for Ondo state were at 3.8 and 3.6 percent, and for Niger, 4.6 and 5.6 percent.[18] The study showed that the scenario was the same or worse at the local government level. Actual investments in agriculture was 1.0 percent of government expenditures between 2008 and 2012 in Akamkpa Local Government Area of Cross River State and 1.1 percent in Odigbo LGA of Ondo State. The implication of this is that when summed up and expressed as a percentage of the consolidated national total government expenditure (consolidated TGE), consolidated expenditure for agriculture will still represent a very low figure.

How Actual Allocations to Agriculture Fared in Aggregate Expenditures

There is an important relationship between aggregate expenditures and sector allocations. Sector allocations add up to the aggregate budget, since they are simply a distribution of consolidated government expenditures. The aggregate budget (expenditures) increases or decreases annually based on government revenues.[19] The magnitude (size) and direction (increase or decrease) of annual changes in aggregate expenditures also is reflected in sector allocations. Usually, the government fixes the budget resource envelope, i.e., fixes the size of aggregate expenditure, in advance of appropriations to sectors. The 'appropriation formula', i.e., how much of the resource envelope a sector gets, depends on the priority the government attaches to that sector. Thus, a sector's annual budget (and eventual expenditure) may increase or decrease faster or more slowly than the annual change in the resource envelope. Therefore, a comparison of the size and direction of changes in aggregate and a sector's allocations tells an important story about the stability and priority of that sector's allocations.

Both aggregate and agriculture sector expenditures grew annually between 2004 and 2016, but the average rate of growth in expenditures for agriculture was higher than that of aggregate expenditure (Table 1). Aggregate expenditure grew at an annual average of 23.0 percent, while the average growth rate of expenditures for agriculture nearly tripled, at 63.8 percent annually. This means that, in proportional terms, the government increased agriculture spending annually between 2004 and 2016at a rate that is almost three times that of the rate of aggregate expenditures. This creates the impression that agriculture was an

[15] Para. 17, Part II, Schedule 2 (Concurrent Legislative List -Extent of Federal and State Legislative powers) of the 1999 Constitution of the Federal Republic of Nigeria, as amended to date. (Federal Republic of Nigeria 1999)

[16] See para. 18, Part II, Schedule 2 (Concurrent Legislative List - Extent of Federal and State Legislative powers) of the 1999 Constitution of the Federal Republic of Nigeria, as amended to date. (Federal Republic of Nigeria 1999)

[17] Para. 2, Schedule IV (Functions of a Local Government Council) of the 1999 Constitution of the Federal Republic of Nigeria, as amended to date.

[18] See Olomola et al. (2014), p. 91.

[19] Revenues here comprise all resources devoted to the budget for the year, whether sourced from earnings, borrowings, grants, or any other source.

important spending priority for the government among the sectors during the period. However, deeper analysis presents a more nuanced picture, establishing that agriculture enjoyed different fortunes pre- and post-2009. Government expenditure for agriculture grew at an annual rate of 151.9 percent between 2004 and 2009, contrasting with the 36.2 percent growth in TGE. This changed drastically post-2010, when GEA grew by only 0.8 percent annually between 2010 and 2016, when TGE grew by 13.6 percent, correspondingly. Thus, while GEA grew five times faster than TGE when agriculture was a 'development activity' of the government, it grew nearly 17 times slower after agriculture became a 'business activity'.

Table 1 confirms that agriculture enjoyed priority spending only during the pre-2010 era, but not post-2010. Agriculture spending grew five times higher annually than aggregate expenditure, pre-2010. Actual TGE increased more than threefold (352.2 percent) from 607.93 billion Naira in 2004 to 2,749.07 billion Naira in 2009[20] In comparison, actual GEA increased more than 20-fold (2067.3 percent) from 7.35 billion Naira in 2004 to 159.28 billion Naira in 2009 (Table 1). Actual GEA still grew faster annually than TGE, even with treating the huge increase in GEA in 2009 as an extraordinary occurrence. Thus, GEA increased by 195.6 percent from 2004 (₦7.35 billion) to 2008 (₦21.72 billion), whereas TGE grew by 178.9 percent only, in the same period, from ₦607.93 billion to ₦1,695.67 billion. However, the federal government's TGE increased by 50.5 percent post 2009, from ₦3,649.77 billion in 2010 to ₦5,491.36 in 2016. Conversely, GEA corresponding increased by only 2.3 percent from ₦55.56 billion to ₦5,491.36 billion.

Table 1: Annual changes in expenditure outturns: aggregate vs agriculture, percentage change

	Aggregate (TGE)	Agriculture (GEA)	Difference (GEA - TGE)
2005	17.5	32.1	14.5
2006	32.8	48.9	16.1
2007	47.6	27.7	-19.9
2008	21.1	17.7	-3.4
2009	62.1	633.2	571.1
2010	32.8	-65.1	-97.9
2011	47.5	71.8	24.3
2012	-26.9	-48.6	-21.7
2013	-16.4	6.2	22.6
2014	10.8	0.2	-10.6
2015	8.5	-39.9	-48.4
2016	38.7	81.1	42.3
Average, 2004 to 2016	23.0	63.8	40.8

Data source: Audited Financial Statements from the Office of the Accountant-General of the Federation (OAGF)

The contrast in the priority accorded agriculture spending, pre- and post-2010 establishes the different emphasis that government expenditure for agriculture enjoyed in the two periods. While spending for agriculture may have been priority when the paradigm was that of "agriculture as a development activity" and the government led investments in the sector, it has not been since the shift of paradigm to "agriculture as a business activity". Government's withdrawal from direct participation in pure production activities in the sector to create space for private sector led growth appears to carry with it some de-emphasis in public spending for the sector.

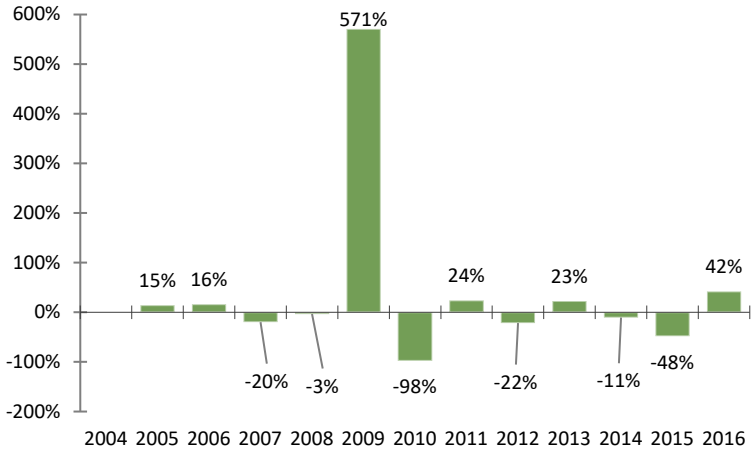
An additional observation from the foregoing is the erratic trend pattern of annual changes in disbursements to agriculture, which made the sector's spending highly volatile and vulnerable; more so than for TGE. For instance, year-on year-changes in actual expenditures were steeper in GEA than in TGE. Annual changes in GEA averaged 63.8 percent for agriculture against 23.0 percent in TGE (Table 1). The

[20] This statement is subject to the caveats expressed in Section 2 above on the 2016 data. This caveat notwithstanding, it is obvious that expenditures increased significantly between 2004 and 2016.

positive sign of the average changes indicates that the net effect of the changes was increase in spending in both aggregate and agriculture spending. However, federal government expenditures for agriculture increased faster annually than total aggregate federal government expenditures by 40.8 percent, on average. This may suggest that allocations to agriculture fared better between 2004 and 2016 than aggregate expenditures; however, this is not so. The pattern of agriculture spending was less predictable than aggregate spending during the period, as a closer examination of Table 1 shows.

The pattern in annual changes in both aggregate and agriculture expenditure shows that both were unstable, but the more strongly varying nature of the pattern in GEA made it more so. The extreme right column in Table 1 also shows this by measuring the difference between the annual changes in aggregate and agriculture expenditure. Figure 2 shows how unpredictable these differences were between 2004 and 2016. The annual fluctuations underline the difficulty of predicting how changes in aggregate government revenues and expenditures would reflect in agriculture spending. This shows that other considerations beyond the size of government revenues determine disbursements to agriculture. Depending on these factors, the government could decide to increase allocations to agriculture above changes in aggregate expenditures by 23 percent (2013) or decrease it by 11 percent the next year (2012).

Figure 2: Difference between annual changes in aggregate and agriculture spending, percent



Data source: Audited Financial Statements from the Office of the Accountant-General of the Federation (OAGF)

Even the massive increase in spending from ₦21.72 billion in 2008 to ₦159.28 billion in 2009 does not necessarily represent a positive development for agriculture spending. It is unlikely that the agriculture sector could have, in one year, acquired the necessary human and technical capacity required to absorb the 633.2 percent annual increase in spending that the 2009 expenditures represent. The argument of 'scaling up' inputs' procurement to boost agricultural production and yields significantly does not justify such one-off "shock" treatment. Usually, planned significant increases in budgetary allocations trail, and do not precede, adequate investments to 'scale up' capacity. Notwithstanding that, such increases are gradual steady processes over time, rather than sudden movements in a single year. The equally drastic drop in agriculture spending in the following year (2010) by 97.9 percent, further illustrates the volatility and unpredictability that this development represents.

Perhaps, the government need to not insulate agriculture spending above a certain minimum and transparent threshold made spending in the sector unpredictable. As explained above, unpredictability of spending complicates the planning and management process and adversely affects results. It may obtain whether the unpredictability results in positive differences in some years, as in six of the 11 years in Table 1, or negative differences, as in the remaining five years. For instance, unpredicted and, therefore,

unplanned (excess) allocations can lead to waste. Similarly, reduced allocations can lead to failure to complete projects as planned, cost overruns, or even project abandonment.[21]

Allocations to Agriculture versus Other Key Sectors

Caveats need to be considered in any direct comparison of allocations to agriculture, education, health, etc. For example, education and health are still largely social services in much of the developing world, involving direct public funding. This is likely to continue for some time, given the role of education and health in human capacity development, poverty eradication, and economic development. On the other hand, agriculture has always been an economic activity that does not respond in the exact same way to direct public engagement. Experience has proven the mixed effects of direct government involvement in agricultural production to emerging economies. Inappropriate public interventions may stifle private initiative, crowd out private enterprise, and waste scarce public resources. Nigeria and other developing countries are realizing that agriculture may respond better to private sector stimuli, rather than direct public sector intervention.

Besides, the federal government plays a limited role in Nigeria's agriculture, constitutionally limited to research, finance, and promotion, as explained above. Direct agricultural development is, at least formally, the responsibility of state governments and their constituent local governments. Although the constitution also circumscribes the role of the federal government in education and health, the federal government directly owns and finances many tertiary, secondary, and primary education and healthcare delivery institutions across the country. For example, the federal government owns 40 universities,[22] 28 polytechnics, 22 monotechnics, 19 colleges of health technology, 19 technical colleges,[23] 22 colleges of education,[24] and 104 secondary schools, tagged, "federal unity schools".[25] A similar situation obtains in the health sector. The federal government budgets funds for these institutions, which accounts for the size of the education and health budgets. These federal government interventions are in addition to similar institutions owned by state governments, to which the federal government contributes funding through the Tertiary Education Trust Fund.[26] The federal government need not own these institutions directly, as its constitutional roles in the sectors are policy formulation and maintenance of standards. Nonetheless, it does own some such institutions.

In addition, both education and health are standalone functions in the 10-function categorization of the UN recognized Classification of the Functions of Government (COFOG), signifying their importance and size. Agriculture does not enjoy such status, being a sub-function of the "economic affairs" function, to which provision of public infrastructure and energy (power) also belong. Just like agriculture, the definitions of education and health expenditures do not conform to COFOG definitions. Expenditures for education and health in the federal government classification are only those expended directly by the Ministries of

[21] Unpredictability of expenditures, which deal with year on year fluctuations of actual allocations, conceptually differs from volatility of expenditures, which arises mostly from inability to adhere to the approved budget. Both lead to unstable expenditures, but policy measures to address are different. The causes of volatility include funding inadequacies, which lie with the Ministry of Finance (i.e., beyond the budget entity) and shortages in planning and budget management capacity. Unpredictability, on the other hand, arises mainly from lack of poor prioritization of expenditure caused by failure of multiyear fiscal frameworks.

[22] Information obtained from the website of the official National Universities Commission, http://nuc.edu.ng.

[23] Information obtained from the website of the official the National Board for Technical Education, https://www.nbte.gov.ng/institutions.html.

[24] Information obtained from the website of the official website of the National Commission for Colleges of Education, http://www.ncceonline.edu.ng/colleges.php.

[25] Comprehensive list is available at https://www.premiumtimesng.com/list-federal-unity-colleges-nigeria.

[26] It is arguable whether the Tertiary Education Trust Fund is a federal government or a Federation resource that belongs to the three tiers of government. This is because sources of finance for the Fund is a special corporate profit levy of two percent. Constitutionally, the federal government administers profit tax, but the proceeds belong to the three tiers of government. This Fund helps to finance all tertiary education institutions (federal and states), and it does not form part of federal government's budgetary appropriation. They are, therefore, not part of this analysis.

Education and Health, respectively. However, many other government institutions also exercise health functions.

Therefore, the more interesting comparison is between expenditures for agriculture and expenditures for infrastructure, power, and other sub-functions of the economic affairs classification under COFOG. Unlike agriculture, power is constitutionally a direct federal government responsibility. State governments can participate in the sector; however, they have played only limited roles, thus far. Like agriculture, power generation, transmission, and distribution have responded poorly to direct government investments. Consequently, the federal government launched a policy of divestment from the sector more than a decade ago and has since been gradually privatizing or commercializing services in the sector. This has limited federal government expenditure in the sector.

Given the foregoing, this section will review disbursements to the agriculture sub-function vis-à-vis disbursements to education, health, economic affairs, and 'general public services' (GPS) functions, as well as the nine other sub-functions of the economic affairs function. Inclusion of the GPS function will afford insight into how important maintenance of the government bureaucracy is relative to agriculture.

Comparative Analysis

General public services (GPS)[27] received the largest allocation between 2004 and 2016 among the select functions for this analysis. Allocations to the function averaged 19.3 percent of total federal government expenditures during the period (Table 2). Economic affairs (including agriculture) follows with an average of 11.2 percent. Education was next with 9.5 percent, while health followed with 5.5 percent. Agriculture averaged 1.7 percent. As a sub-function of economic affairs, the agriculture share is within, not additional to, the 11.2 percent share of economic affairs. This evidence suggests that government priorities between 2004 and 2016 were administration, economic affairs (including agriculture), education, and health, in that order. However, further analysis will confirm whether this inference is valid.

Table 2: Federal government expenditure outturns in select functions vs. the agriculture sub-function 2004 to 2016: percent share of aggregate federal government expenditure

Sector	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg
Agriculture	1.2	1.4	1.5	1.3	1.3	5.8	1.5	1.8	1.2	1.6	1.4	0.8	1.0	1.7
Education*	11.7	11.8	13.5	11.1	8.5	6.1	7.1	5.5	4.0	10.4	10.0	12.6	11.5	9.5
Health	5.5	7.0	7.0	5.4	4.6	4.03	3.7	4.2	3.0	6.6	8.4	5.8	5.4	5.5
Economic Affairs	9.1	8.5	9.7	8.2	6.4	19.2	16.0	12.8	14.0	14.3	11.3	6.2	10.3	11.2
General Public Services	19.7	23.3	24.9	19.5	16.6	13.5	15.9	11.4	14.3	18.6	29.8	19.9	23.2	19.3

Source of Data: Audited Financial Statements of the Federal Government of Nigeria
Note: *Excluding statutory transfers to the Universal Basic Education Commission.

Both education and health are single-subject functions, unlike GPS and economic affairs that deal with diverse subject matters. For instance, the GPS function encompasses the machinery of government, including the State House, Office of Secretary to the Federal Government (cabinet house), Ministries of Finance, Budget and National Development, Information, Office of the Head of Service of the Federation, Office of the Auditor General for the Federation, the National Assembly, etc. The economic affairs function traverses transport (and aviation), communications, mines, power and energy, science and technology, agriculture, water resources, etc. The respective sums of allocations to these various activities that comprise the GPS and the economic affairs functions would, probably, always exceed allocations to the single subject functions of education and health. Greater allocations to GPS and economic affairs than

[27] This assessment mapped government expenditures using administrative classification only. Mapping with economic classification would be more accurate, although COFOG allows administrative mapping as an alternative. Economic mapping will involve time and cost, both luxuries of which this limited exercise does not have.

education and health is not conclusive proof of not according priority to education and health. An analysis of the relative protection accorded expenditures for functions and sub-functions will help establish the importance attaching to each.

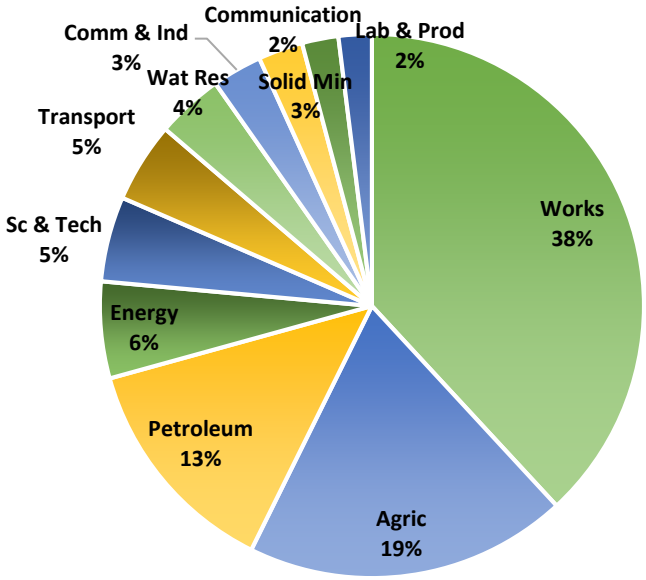
In summary, the evidence suggests that, generally, government spending between 2004 and 2016 emphasized the maintenance of the machinery of government above every other function. Outside this, government spending sought to promote short to medium term wealth creation and economic diversification (the economic affairs function) above the longer term human capital development that investments in education and health entail. However, the importance that the government attached to agriculture within the economic affairs function requires further investigation.

2.3. Disbursements to Agriculture vis-à-vis Other Economic Activities

Government expenditures for agriculture may have performed not as well among the select functions and sub-functions for this study, but it did receive the second-most funding among its peers within the economic affairs function, with the works sub-function taking the first position. Figure 3 lists the ten sub-functions and their respective expenditure shares from 2004 to 2016. Expenditure outturns for the function average ₦195.1 billion during the period. The works sub-function accounts for 38 percent of this, or an average of ₦95.3 billion, making it the most funded sub-function within the economic affairs function. This performance was largely due to the large disbursements the sub-function received in 2015 and 2016. The works sub-function deals with public infrastructure, covering construction of interstate roads and bridges, and major roads and bridges within the Federal Capital Territory of Abuja and in Lagos metropolis, etc. Since 2015, the sub-function has also included 'lands and housing', which is a separate and fully-fledged function in the UN COFOG, and power (energy). However, this analysis managed to identify and reclassify expenditures for energy as the separate sub-function that it has always been. The poor state of public infrastructure is an acknowledged major challenge to the performance of the economy.

Agriculture ranks a distant second, with an average of N48 billion Naira or 19 percent. Petroleum follows with an average of ₦33.5 billion or 13 percent of the total outturns. Energy (power, electricity) is next with ₦14.3 billion (6 percent). Tackling the poor power supply issues in Nigeria has been another major challenge (alongside public infrastructure) for successive administrations since return to civil democracy in 1999. The intractable nature of the problem is a significant contributor to sub-optimal performances in the economy, including for agriculture. The remaining order of ranking is science and technology and (rail, marine, and aviation) transport, (5 percent), water resources (4 percent), commerce and industry, and solid minerals (3 percent), and labor and productivity (2 percent).

Figure 3: Distribution of average expenditure outturns in the Economic Affairs function, 2004 - 2015



Data source: Audited Financial Statements from the Office of the Accountant-General of the Federation (OAGF)

The gap between government expenditures for agriculture, that ranked second, and for works, that ranks first, is quite significant, notwithstanding the case made above for public infrastructure. The average disbursements for agriculture of ₦48 billion per annum was just above half (50.4 percent) of that for infrastructure development.

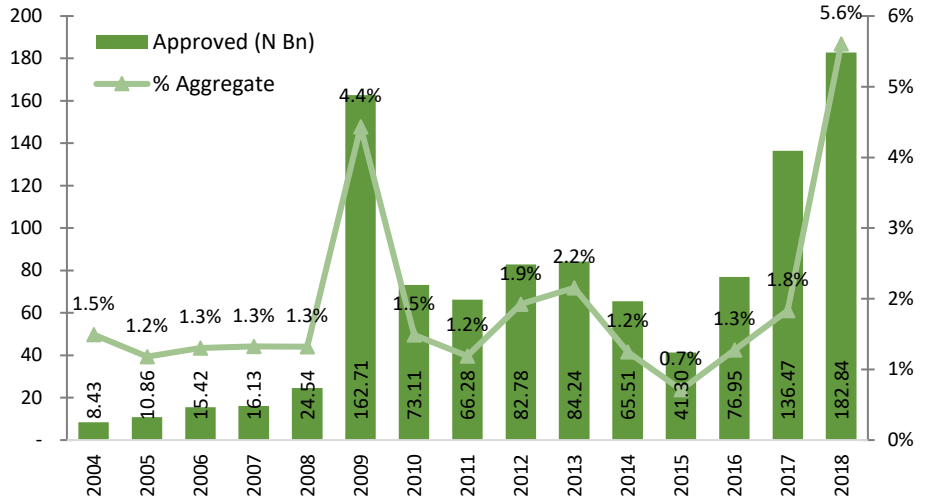
3. ANALYSIS OF BUDGETED EXPENDITURES IN AGRICULTURE

3.1. Budgeted Allocations for Agriculture

Generally, approved expenditures for agriculture increased significantly between 2004 and 2018, but allocations fall into different episodes. [28] Overall, budgeted expenditures for agriculture increased nearly 21-fold from 8.43 billion Naira in 2004 to 182.84 billion Naira in 2018 (Figure 4). However, the increases were not uniform over time; periods of increases and decreases succeed each other. The first phase of growth was between 2004 and 2009, when approved expenditures increased 18-fold to 162.71 billion Naira. This was the period identified above during which government policy treated agriculture as a government-led development activity. The increasing budgets funded the numerous presidential initiatives on agriculture, including inefficient subsidies on inputs (seeds, fertilizer, agrochemicals). Actual government spending on agriculture also rose consistently every year in this period, as discussed earlier.

[28] Analysis of budgeted expenditures includes the approved budgets for 2017 and 2018, which are available on the websites of the federal government; see for example, www.budgetoffice.gov.ng.

Figure 4: Approved expenditure on agriculture 2004 to 2018, Naira billions and percent of total approved expenditure



Data source: Budget reports from the Budget Office of the Federation.

Approved expenditure for agriculture plunged significantly in 2010 and 2011 by 62.8 and 25.3 percent, respectively, from the preceding year's figures. Two complementary developments, plus a third factor, account for this. Section 2 has already discussed the policy reform that began in 2010 to transition from a government policy of "agriculture as a development activity" to agriculture as a private sector-led economic activity. This policy led to the redefinition of the subsidy agenda and discontinuation of government's direct procurement of agricultural inputs. The subsidy reform, in particular, was behind the massive reduction in the agriculture budget in 2010. This period also witnessed the introduction of the fiscal consolidation agenda of the federal government, especially in 2011, when the government sought to "achieve more with less" by plugging loopholes in the financial and procurement systems that led to wasteful spending. The third contributing factor was the splitting of the Federal Ministry of Water Resources into two separate ministries in 2011 by the government. The fiscal consolidation agenda and the excising of water resources from agriculture were responsible for the further reduction in the approved expenditure for agriculture in 2011.

The next two years witnessed an increase in 2012 to ₦82.78 billion and a further increase to 84.24 billion Naira in 2013 (Figure 4). These increases were responses to the funding requirements of the new Agricultural Transformation Agenda, formally launched in mid-2011. They were also in response to political economy issues in the Nigerian budgeting system that resulted in the national assembly inflating the executive budget proposals beyond what the Ministry of Finance intended to or could fund. The high level of deviation of expenditure outturn from approved expenditures (see below) confirms the latter point.

The decline of the approved budget for agriculture in 2014 and 2015 was for differing reasons. The continuing program of fiscal consolidation contributed to the –22.2 percent decline in 2014. Another probable contributing factor was the conclusion of the World Bank's First Agriculture Sector Development Policy Operation (AgDPO1) endorsed in 2013, but with the proceeds expected to flow in 2014. FMARD had expected to draw on the funds directly, as additional extrabudgetary resources to budget provisions. However, a special audit finding on the AgDPO1 found "It appears there was a misunderstanding of the concept of the budget support financing at the sectoral level, as FMARD had impression that the funds could be earmarked for their sole use, making them withdraw the sum of $21,444,000.00 for their activities, which they later refunded" (Osakwe 2017). It seems that this erroneous impression influenced the Ministry's budget request. The further decline of 37.0 percent on the approved budget for 2015 was a fallout of the drastic decline in world oil prices, which began in mid-2014. The continuing decline forced the

executive to withdraw the budget proposal it had earlier submitted to the National Assembly for downward review.

The massive increases in budgetary allocation since 2016 appears to be a policy response of the new government that came into power in mid-2015 to the challenge of agriculture. Anchoring the economic diversification program on agriculture was a major platform of the government's electoral campaign. The government promised to raise agriculture to new heights. The increased allocations appear to be an effort at realizing these promises. Consequently, the government increased budgetary allocations to agriculture by 86.3 percent in 2016, despite the poor state of government revenues. However, the government could only achieve a budget execution rate of 73.9 percent in that year. This notwithstanding, the government further raised the budget for agriculture by 77.4 percent to ₦136.47 billion in 2017 and 34.0 percent to ₦182.84 billion Naira in 2018.

The increases in the approved allocations in recent years do not represent an improved share of agriculture in approved aggregate expenditure over the preceding years. In fact, the 2018 allocations translate to only 5.6 percent of approved total federal government expenditures for the year (Table 3), which falls short of the AU target of 10 percent. However, the 2018 allocation is the federal government's highest achievement so far, i.e., considering the approved budget only and not also the outturns. This exceeds the next best performance in budget allocations of 4.4 percent achieved in 2009. Actual expenditure (outturns) for that year amounted to 5.8 percent (Table 3). It is not yet clear whether the government funded the improved budget allocations of 2017 and 2018, or whether the underfunding experience of 2016 has been repeated.

The low level of budgetary allocations to agriculture underscores the government's lack of commitment to achieving the AU budget allocation target. It also reflects policy misalignment in failing to match pronouncement on the key role of agriculture in economic growth and job creation with fiscal policy and allocations. An alternative argument could be that the federal government's allocations are commensurate with its role in a federated regime of shared responsibilities, where the state government and local governments bear responsibility for agricultural production. Massive increases in federal expenditure to approximate the AU target of 10 percent would lead to encroachment on the responsibilities of lower tiers of government and likely to a waste of resources. This appears to be the federal government's view.

3.2. Policy Reversal, Fiscal Consolidation and Fiscal Expansion: Implications for Agriculture

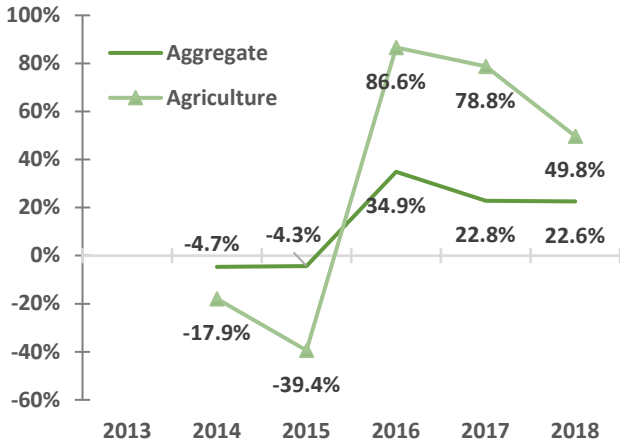
The FY 2016 budget represents a major shift in Nigeria's fiscal policy stance, from a regime of fiscal consolidation (austerity) to that of fiscal expansion. The erstwhile right-of-center administration pursued a fiscal consolidation regime from 2012 to 2015, seeking to curtail waste and leakages, control public debt, pursue a liberal, market-determined foreign exchange policy, stimulate market-led production, create jobs, and achieve non-inflationary growth. The maxim of the day was to, "achieve more with less". The new, left-of-center government that took office in May 2015 also sought to achieve the same growth objectives by reversing most of the previous government's policies and instituted a "progressive" regime.[29] The 2016 budget was the first full-year budget made by the new administration.[30] It signaled a shift from fiscal consolidation to fiscal expansion. The government increased the 2016 budget by nearly 35 percent from

[29] At least, initially; most of its recent policies are more centrist, with some even tending towards right-of-center.

[30] The new government made a supplementary budget in FY 2015 to accommodate some of its policies, which it considered to be urgent, e.g., to approve extra funds to prosecute the Boko Haram war in northeast Nigeria and for the reconstruction and rehabilitation of the area.

the 2015 level (Figure 5). The government expanded the size of the budget again in 2017 and 2018 by 22.8 percent and 22.6 percent, respectively (Table 3).

Figure 5: Comparison of annual percent increases in the overall federal budget and the budget for agriculture, 2014 to 2018



Data source: Budget reports from the Budget Office of the Federation.

A comparison of the approved budgets for the first three years of the current administration, 2016 to 2018, with those of the last three years of the preceding administration, 2013 to 2015, demonstrates the contrasting policies of the two administrations. The size of the aggregate budget declined in 2014 from 2013 by 4.7 percent and in 2015 by 4.3 percent. These reductions reflect the fiscal stance of consolidation. This contrasts with the sharp increases in the aggregate budget under the current expansionary policy (Table 3, Figure 5). These increases were made despite the severely narrowed revenue base of the government occasioned by the collapse of international oil prices from mid-2014. The government resorted to huge domestic and foreign borrowing to fund the budget increases.

Table 3: Approved federal government budgets, 2013 to 2018, billions of Naira

	2013	2014	2015	2016	2017	2018
Aggregate	4,924.60	4,695.19	4,493.36	6,060.68	7,441.18	9,120.33
Agriculture, of which	81.68	67.04	40.62	75.81	135.55	203.01
Recurrent	32.95	31.49	31.87	29.63	31.75	53.81
Capital	48.73	35.55	8.75	46.17	103.79	149.20
Annual changes, percent						
Aggregate		-4.7	-4.3	34.9	22.8	22.6
Agriculture, of which		-17.9	-39.4	86.6	78.8	49.8
Recurrent		-4.4	1.2	-7.0	7.2	69.5
Capital		-27.0	-75.4	427.6	124.8	43.7

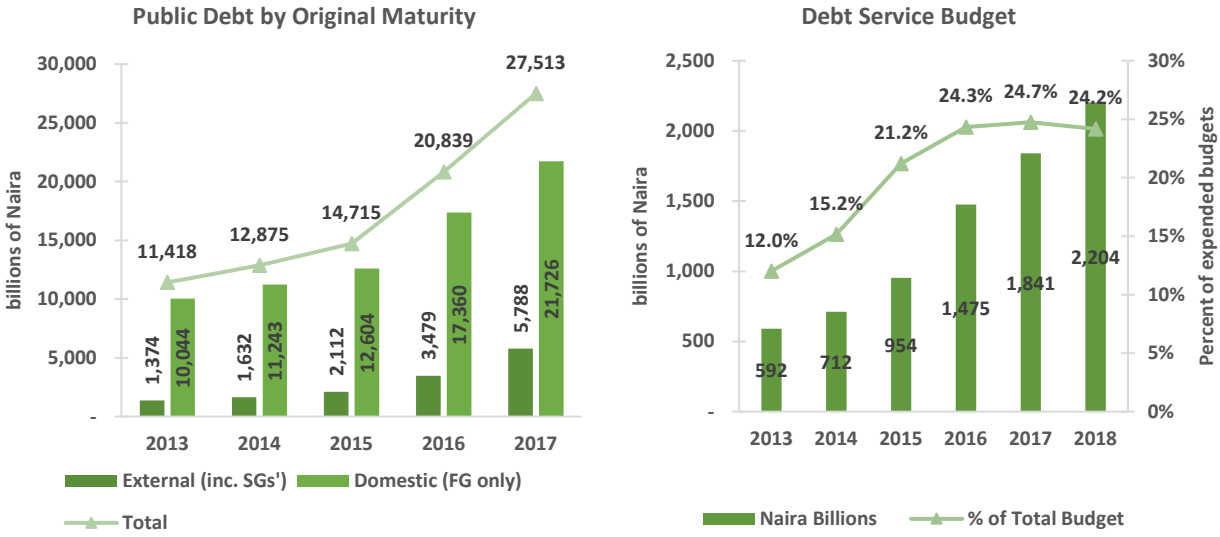
Source of Data: Budget Office of the Federation, www.budgetoffice.gov.ng
Note: The budget figures used here are from the website of the Budget Office of the Federation, hence the figures differ from those used in the other analyses, which were taken from the audited financial statements. However, the differences do not affect the principle of this discussion, which is to illustrate the different policies of the eras, and how they affect expenditures for agriculture.

The government's fiscal policy stance affects allocations to agriculture, as it does other sectors of the economy. The budget cuts and increases had disproportionate impacts on allocations to agriculture, either way. Thus, the budget cuts of 2014 and 2015 resulted in 17.9 and 39.4 percent cuts, respectively in allocations to the sector (Table 3). These cuts are larger than the cut in aggregate spending. The cuts affected capital expenditures (-27.0 and -75.4 percent in 2014 and 2015, respectively) more than recurrent expenditure (-4.4 percent in 2014 and an increase of 1.2 percent in 2015). However, developments in

international oil prices also affected the cuts in capital expenditure allocations in 2015. Conversely, allocations to agriculture expanded at a much higher rate than aggregate expenditure expanded. The budget for agriculture increased at 86.6, 78.8, and 49.8 percent in 2016, 2017, and 2018, respectively, in response to the smaller (but also large) increases in the aggregate budget.

The significant increases in budgetary allocations to agriculture since 2016 underscore the current government's commitment to fund the agriculture sector more adequately. Budgetary allocations to the sector have experienced a cumulative increase of 168 percent in in the three years from 2016 to 2018. This is a major development, by all accounts. But this analysis does not confirm that the rapid and large increases in expenditures is translating into better results than was previously the case. Indeed, "The agricultural sector in the second quarter of 2018 grew by 1.19 (year-on-year) in real terms, a decrease by –1.82 points from the corresponding period of 2017, also a decrease by –1.81 points from the preceding quarter".[31]

Figure 6: Federal government's total public debt outstanding by original maturity and debt service



Data Source: Debt Management Office (DMO).

In the second quarter of 2018, agriculture contributed 18.78 percent of total GDP. This figure is lower than the rates recorded for the second quarter of 2017 and higher than the first quarter of 2018, which recorded 19.28 percent and 17.42 percent, respectively. As argued above, an effective program of capacity building should be taken at least a step ahead of any planned major increases in expenditures. As mentioned earlier, the government is funding its expansionary fiscal stance largely by borrowing, most domestically, but increasingly, also externally. This has led to a near doubling of the federal government's debt stock in two years from ₦14.7 trillion in 2015 to ₦27.5 trillion (Figure 6). In addition, the debt service budget is also increasing rapidly, amounting to nearly 25 percent of the expended budgets in 2017 and 2018 (Figure 6). The Debt Management Office observes, as follows, "The FGN's Total Debt Service was US$5,288.30 million as at December 31, 2017 compared to US$4,381.82 million in 2016 … The significant increase of US$906.48 million or 20.69 percent was attributed to the rise in the stock of External and Domestic Debt. The External and Domestic Debt Service in 2017, as a percentage of the total public debt service, were 8.77 and 91.23 percent, respectively, compared to 8.06 and 91.94 percent in 2016".[32]

[31] National Bureau of Statistics, *Nigerian Gross Domestic Product Report, (Q2 2018)*, www.nigerianstat.gov.ng, p. 9.

[32] Debt Management Office, 2017 Annual Report and Statement of Accounts, www.dmo.gov.ng.

However, this expansionary fiscal stance has downsides that may be adversely affecting agricultural productivity, along with other sectors. For instance, the budget expansion and the accompanying controlled monetary and exchange rate policies and low revenue earnings forced the economy into a recession for six quarters between 2015 and 2017. This resulted in a significant depreciation in the value of the Naira, with the official (i.e., for government business transactions) exchange rate falling from ₦197 to the US dollar in 2015 to, and remaining at ₦306, since early 2017. The exchange rate for business and private transactions reached ₦505 to the US dollar at a time, but it has since settled at ₦360.

4. ANALYSIS OF BUDGET DEVIATIONS

4.1. Deviations in Agriculture Spending

Underspending of the approved budget characterized spending on agriculture between 2004 and 2016, except in two years: 2007 and 2011 (Table 4). The highest level of percentage deviation from the approved budget occurred in 2011 and 2012, with 44.0 percent and 40.7 percent, respectively. Other years with highly significant expenditure deviations, using the Public Expenditure and Financial Accountability (PEFA) calibration of a "D" score, were 2012 (-40.7 percent), 2013 (-38.1 percent), 2016 (-26.1 percent), 2015 (-24.0 percent), and 2014 (-20.3 percent).[33]

Recurring deviations are a source of concern, whether they represent overspending or underspending of the budget. Both or either is sufficient to paint a picture of unpredictability of spending (Figure 7). Notwithstanding the fact of underspending in most of the years, Figure 7 still traces a terrain that points to instability or volatility of spending or both. Consequently, the sign of the deviation is one element in fiscal management, as either excess and underspending represents fiscal indiscipline, and neither is good for planning. Perennial recurrence of either signifies important underlying issues that need attention. These issues are usually inadequacies in planning capacity, funding, or both. For example, excess spending implies the commitment of unplanned or poorly planned expenditures, which could result in inefficient spending. Good budgetary management practice discourages unbudgeted spending, except when it is a one-time response to some real, unforeseeable emergency. Effective planning helps minimize the need for such ad hoc distorting interventions.

[33] See PEFA Secretariat, Framework for assessing public financial management, Washington DC, USA, February 2016, *p. 13.*

The Public Expenditure and Financial Accountability (PEFA) tool was developed by seven international development partners active in the public financial management sector - the World Bank, the International Monetary Fund (IMF), the United Kingdom's Department for International Development (UKaid), the European Commission (EC), the French Ministry of Foreign Affairs, the Royal Norwegian Ministry of Foreign Affairs, and the Swiss State Secretariat for Economic Affairs (SECO). A key objective of PEFA is to develop a common framework for assessing the ability of the public financial management system to support attainment of the three budgetary goals of aggregate fiscal discipline, strategic prioritization in resource allocation, and efficient delivery of services, and thereby reduce transaction costs for countries that would have been using different public financial management assessment frameworks for different donors.

The latest PEFA framework (2016) regards sustained deviation of above 15 percent (positive or negative) as indicating serious underlying problems of planning or implementation that warrants immediate attention. A deviation of between 10 and 15 percent is a "C" performance that is tolerable as the minimum acceptable good practice standard. A deviation of between 6 and 10 percent is a "B" performance, while a deviation of 5 percent and under is excellent, attracting an "A" score.

Table 4: Total government expenditure on agriculture, 2004 to 2015

Year	Approved Naira, billions	Outturn Naira, billions	Deviation Naira, billions	Deviation Percent	Year-on-year change, percent Approved	Year-on-year change, percent Outturn	Share of TGE, percent Approved	Share of TGE, percent Outturn
2004	8.43	7.35	(1.09)	-12.9			1.5	1.2
2005	10.86	9.71	(1.15)	-10.6	28.7	32.1	1.2	1.4
2006	15.42	14.45	(0.97)	-6.3	42.0	48.9	1.3	1.5
2007	16.13	18.46	2.33	14.4	4.6	27.7	1.3	1.3
2008	24.54	21.72	(2.82)	-11.5	52.1	17.7	1.3	1.3
2009	162.71	159.28	(3.43)	-2.1	563.0	633.2	4.4	5.8
2010	73.11	55.56	(17.55)	-24.0	-55.1	-65.1	1.5	1.5
2011	66.28	95.43	29.15	44.0	-9.3	71.8	1.2	1.8
2012	82.78	49.07	(33.71)	-40.7	24.9	-48.6	1.9	1.2
2013	84.24	52.12	(32.13)	-38.1	1.8	6.2	2.2	1.6
2014	65.51	52.24	(13.27)	-20.3	-22.2	0.2	1.2	1.4
2015	41.30	31.39	(9.90)	-24.0	-37.0	-39.9	0.7	0.8
2016	76.95	56.84	(20.11)	-26.1	86.3	81.1	1.3	1.0
Average, 2004 to 2016	56.02	47.97	-8.05	-12.17	56.65	63.78	1.62	1.68

Source of Data: Audited Financial Statements of the Federal Government of Nigeria

Figure 7: Percentage deviations in agriculture spending, 2004 to 2016

Source of Data: Audited Financial Statements of the Federal Government of Nigeria

On the other hand, perennial underspending of the budget can undermine planning, by instituting 'tentative planning'. Tentative planning can result in budget mangers taking budgeting less seriously, because they know that they will not receive whatever they request, i.e., they know that their plans do not count in the decision on the size of allocations provided. It also results when they are not sure that they will receive the funds as approved in the budget. This affects their attitude and commitment to the process. These managers wait to receive the funds before commencing real planning. Proposals submitted earlier in response to the government's budget calls are 'tentative' plans, intended only to satisfy the official call. Such attitudes lead to hasty planning, which produces unsatisfactory results.

Underspending appears to have become an enduring feature of the funding system for agriculture expenditure, if not the entire public financial management system. The pattern shows reluctance to fund the approved budget. This reluctance introduces volatility into expenditure planning. It affects expenditure planning and management, and ultimately results attainment, ability to complete projects, and ability to maintain or expand the current level of services.

4.2. Deviations in Agriculture Spending versus in Other Key Functions

Instability of spending resulting from funding or planning inadequacies was not particular to the agriculture sector. These inadequacies affected all the ten government expenditure functions every year from 2004 to 2016. Table 5 presents annual deviations of actual disbursements to the functions and the sub-function of agriculture from their approved allocations. The analysis shows a phenomenon of regular underfunding (negative deviations) and overfunding (positive deviations) of the approved budget. This phenomenon does not follow a discernible pattern, which confirms the pervasive nature of funding unpredictability in the federal government. The 2016 audit report on the accounts of the Federation confirm the problem of pervasive underfunding of the budget, as follows, "It was observed from records made available for audit that there was a pervasive low level of budgetary releases across all government agencies which invariably impacted their ability to deliver on their responsibilities."[34]

Table 5: Expenditure deviations by federal government expenditure function, 2004 to 2016

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
General Public Service	-4.0	-20.6	-9.1	4.2	1.0	-33.3	-25.8	-5.1	6.4	-5.3	-12.4	-13.1	312.8
Defense	-8.9	-11.8	-15.2	0.5	-8.1	-24.0	-4.9	-12.3	-6.6	-10.7	11.2	-9.1	32.1
Public Order & Safety	-4.0	-15.2	-23.5	5.7	-14.3	-15.0	-18.8	-9.1	-17.5	-14.3	-25.6	-14.4	-44.2
Economic Affairs	-10.6	-10.2	-10.6	-8.0	-10.4	-28.6	-21.5	4.3	-34.0	-34.3	-23.9	-18.2	-41.4
including agriculture	*-12.9*	*-10.6*	*-6.3*	*14.4*	*-11.5*	*-2.1*	*-24.0*	*44.0*	*-40.7*	*-38.1*	*-20.3*	*-24.0*	*-26.1*
Environmental Protection	-22.1	-13.8	-4.6	-13.9	-22.2	-29.1	-39.8	4.7	-38.5	33.8	-71.5	-29.0	48.0
Social Protection	-10.0	-5.0	-48.6	-25.5	-0.3	-8.5	-13.6	-3.3	-68.0	-45.2	58.7	-5.3	-89.1
Education	-1.6	-9.3	-1.3	8.9	-14.7	-25.3	-18.6	-16.7	-61.7	-21.0	-35.4	-14.5	48.5
Health	-0.5	-0.1	-1.9	6.0	-12.3	-26.0	-22.7	-14.9	-59.0	-24.1	15.8	-13.6	16.5
Recreation, Culture, & Religion	-8.5	-18.6	-7.3	-12.6	-35.6	-19.3	-22.8	1.5	-46.2	-17.1	-28.6	-20.2	9.7
Lands & Housing	-12.3	-13.0	-13.3	-13.7	-15.6			-1.0	-36.1	-45.0	-57.6	-91.4	
Other (not included elsewhere)	97.7	-43.0	-40.2	47.2	-7.9	-23.3	-33.6	0.7	69.7	-0.7	-72.1	-56.9	-40.8
Aggregate Expenditure	7.7	-22.4	-19.9	14.9	-8.9	-25.1	-25.6	-3.4	-8.6	-15.8	-30.4	-31.8	-8.8

Source of Data: Audited Financial Statements of the Federal Government of Nigeria.
Notes: Government treated the Lands function as part of environmental management and the housing function as part infrastructure (economic affairs) in 2009 and 2010. It will require deeper analysis than done here to isolate expenditures to the two activities in those years.

Failure to fund expenditures as approved has been a feature of the federal government's public financial management system for the last two decades. A major cause of this failure is the perennial dispute between the executive and legislative branches of the federal government on who has the ultimate responsibility for making the budget. The legislature argues that it has that ultimate responsibility and, therefore, persistently adjusts, often raising, proposals submitted to it by the executive for approval. Disagreements arise from this annually, because of the executive's argument that such poorly conceptualized increases complicate macroeconomic management. Both arms of the government have not managed to work out a solution to this problem, despite the fact that it predictably recurs.[35]

This disagreement affects budget management in two ways. First, it has led to perennial late approval of the budget, which affects implementation of the capital component of the budget. For instance, the president assented to the 2018 budget in the third week of June 2018, six months into the

[34] 2016 Federal Government Audit Report, p. 5.

[35] Nigeria's former two-time finance minister (2003 to 2006; 2011 to 2015), Ngozi Okonjo-Iweala, discusses the origin, nature, impact and solutions to the executive-legislative budget battles in her book; *Fighting Corruption Is Dangerous* (Okonjo-Iweala 2018); see Chapter 4, "A Twisted Budget Process".

fiscal year. The 2016 audit report on the accounts of the federation commented on the impact of this problem as follows,

> "We noted that the uncertainty caused by delays in the passage of the annual budget further compounded the funding challenges stated above, as MDAs [government agencies] found it difficult to deliver their mandates without timely confirmation of the resources to be made available. These delays have resulted in a significant misalignment between the Financial Reporting year which ends 31st December, and the budget year, which is now typically being allowed to run until the middle of the following year. We believe the delays are entirely avoidable and should not exist in an environment where those charged with governance are willing to deliver good public financial management."[36]

Second, the executive arm 'technically refuses' to implement the budget as made by releasing funds in the manner it chooses, rather than according to the approved expenditures. In effect, the executive assumes the discretion to remake the budget during implementation. However, the principles that the executive follows in applying this 'discretion' is unclear. Thus, the executive decides the amount and timing of fund releases, but does not publish the guide that it uses in making such decisions, if any. However, the administration does not openly admit that it remakes the budget, as this would amount to admitting an 'impeachable offence' against the president. Consequently, the level, i.e., percentage share, of funding varies among the government functions and sub-functions, depending on the redefined priorities of the executive.

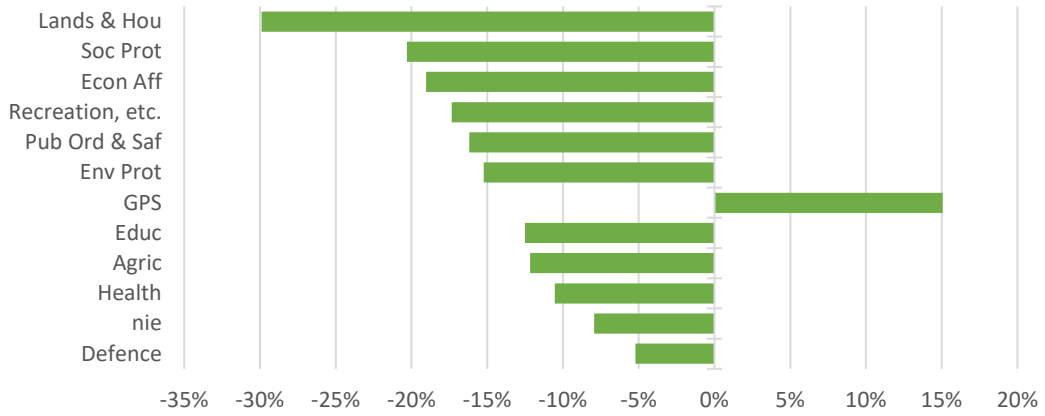
Late passage of the budget is not the only factor responsible for the funding challenges facing the public financial management system. However, the overbearing nature of the recurring delays in approving the annual budget overshadows these other issues and denies them the corrective attention they deserve. Other contributing factors include:

- Poor revenue performance, including inability to realize the revenue denominating the budget, including taxes and failure to report internal revenue collected by parastatals.
- Capacity issues relating to planning, recordkeeping, and accounting and reporting
- Non-updated public financial management laws, systems, processes, and outmoded technology, and failure to enforce compliance with existing laws.

A comparison of the average the annual deviations in Table 5 confirms that government expenditure for agriculture (GEA) was not the most volatile among the 10 functions and the agriculture sub-function. Deviations in GEA averaged 12.2 percent between 2004 and 2016, making it the fourth least volatile of the expenditures (Figure 8). Whether deviations are positive or negative does not matter in a simple analysis of spending stability, as explained. However, they are important in establishing funding adequacy and priority.

[36] 2016 federal government Audit Report, p. 5.

Figure 8: Percent average deviations in federal government spending between 2004 to 2016, by government expenditure function



Source of Data: Audited Financial Statements of the Federal Government of Nigeria

A deeper comparison of the pattern of funding deviations among the select functions for this analysis (education, health, economic affairs, and general public services (GPS)) and the agriculture sub-function shows that agriculture was the least volatile of them all (Table 6).

Table 6: Expenditure deviations, by selected government expenditure function, 2004 to 2016

	Naira, billions					Percent				
	Agricul-ture	Educa-tion	Health	Econo-mic Affairs	General Public Service	Agricul-ture	Educa-tion	Health	Econo-mic Affairs	General Public Service
2004	(1.09)	(1.14)	(0.18)	(6.57)	(4.94)	-12.9	-1.6	-0.5	-10.6	-4.0
2005	(1.15)	(8.58)	(0.06)	(6.88)	(43.31)	-10.6	-9.3	-0.1	-10.2	-20.6
2006	(0.97)	(1.63)	(1.28)	(10.95)	(23.56)	-6.3	-1.3	-1.9	-10.6	-9.1
2007	2.33	27.16	4.25	(10.06)	11.08	14.4	19.1	6.0	-8.0	4.2
2008	(2.82)	(24.78)	(11.01)	(12.51)	2.70	-11.5	-14.7	-12.3	-10.4	1.0
2009	(3.43)	(56.68)	(41.55)	(212.18)	(185.69)	-2.1	-25.3	-26.0	-28.6	-33.3
2010	(17.55)	(59.71)	(39.46)	(159.74)	(201.79)	-24.0	-18.6	-22.7	-21.5	-25.8
2011	29.15	(59.59)	(39.91)	28.59	(32.68)	44.0	-16.7	-14.9	4.3	-5.1
2012	(33.71)	(252.55)	(168.10)	(284.36)	34.02	-40.7	-61.7	-59.0	-34.0	6.4
2013	(32.13)	(90.94)	(68.90)	(246.50)	(34.51)	-38.1	-21.0	-24.1	-34.3	-5.3
2014	(13.27)	(200.21)	41.97	(129.65)	(153.93)	-20.3	-35.4	15.8	-23.9	-12.4
2015	(9.90)	(85.13)	(36.52)	(54.96)	(118.95)	-24.0	-14.5	-13.6	-18.2	-13.1
2016	(20.11)	206.50	41.99	(398.66)	966.99	-26.1	48.5	16.5	-41.4	312.8
Average, 2004 to 2016	(8.05)	(46.71)	(24.52)	(115.73)	16.57	14.8	16.0	14.6	27.7	3.1

Source of Data: Audited Financial Statements of the Federal Government of Nigeria.
Notes: Average percentages here are averages of Naira amount of deviations divided by averages of Naira amounts of budgeted allocations' rather than a simple average of the annual percent deviations.

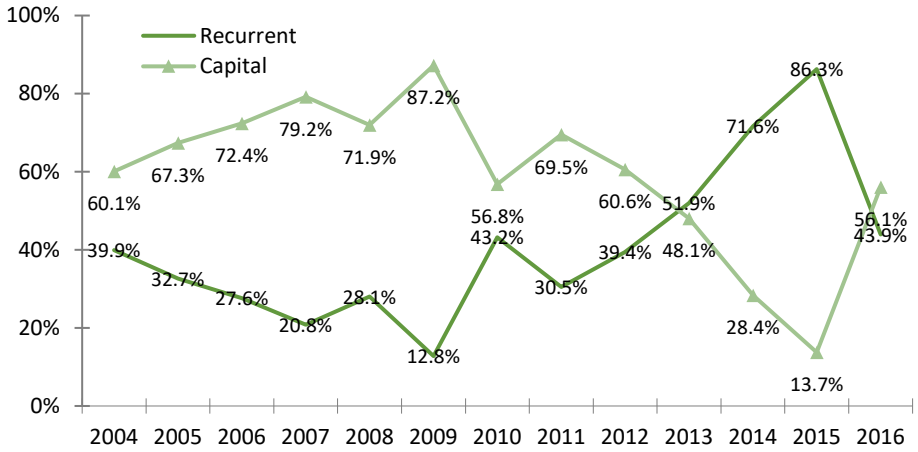
The figures in Table 6 show that the overall gap between the approved budget and expenditure outturn was least in the agriculture sub-function, although it was highest in the 'economic affairs function' to which agriculture belongs. However, the figures do not establish priority or adequacy of funding among the functions and sub-function during the period. Accurately establishing that would require an analysis of the annual differentials in the rates of change for each function. That exercise would not add much value to this work, given its limited scope.

However, we observe that, while government expenditures for agriculture may not have suffered the most instability among the activities of the government, they also did not enjoy the most protection, at least not against GPS. As noted, the signs of the expenditure deviations both establish adequacy of funding and provide insight on the level of priority attaching to the spending items. Figure 8 shows that GPS received more funding on average than approved in the budget, since its average deviation has a positive sign. The remaining nine functions and the sub-function of agriculture have negative signs, showing that average funding during the period was below their respective approved budgets. This also suggests that the government accorded the highest level of priority to general public services spending during the period. Government was willing to move resources away from other activities to ensure adequate funding for GPS, even when that involves exceeding the approved budget for the function. This explains the positive sign of the deviation for GPS and the corresponding negative sign of the deviations for the other items.

5. ECONOMIC COMPOSITION OF GOVERNMENT EXPENDITURES FOR AGRICULTURE

The trend traced by the federal government's recurrent and capital expenditure outturns for agriculture from 2004 to 2016 show that they swapped priority position over this period. Capital spending dominated actual disbursements up to 2013, when recurrent expenditure dominated to 2016 (Figure 9). The capital share of government expenditure on agriculture (GEA) rose steadily from 2007 to 2009, except for 2008, when it dipped slightly. The dominance of capital expenditure continued to 2012, but not at the same rate. Recurrent expenditure became the more dominant spending from 2013, with 51.9 percent. This rate increased in 2014 and 2015 to 86.3 percent. The wide divergence between recurrent and capital expenditure in 2015 (Figure 9) was due to the deep fall in oil prices, which began in mid-2014 and continued beyond fiscal 2015. The government anticipated the enduring nature of the oil price fall and reflected this in the 2015 budget by allocating more resources to committed expenditures, such as recurrent expenditure. Capital again overtook recurrent expenditure in 2016. Overall, the share of capital expenditure in actual agriculture spending averaged 62.8 percent between 2004 and 2016, while that of recurrent averaged 37. 2 percent, illustrating the importance attached to capital expenditure.

Figure 9: Actual recurrent and capital expenditure shares for agriculture, 2004 to 2016



Source of Data: Audited Financial Statements of the Federal Government of Nigeria

The prominence of recurrent expenditure from 2013 and the corresponding fall of capital expenditure from that year raises the question whether the government was trading off the latter for the former. For instance, capital expenditure fell by ₦14.92 billion between 2012 and 2014, while recurrent expenditure rose correspondingly by ₦18.08 billion (Table 7). (The rise in recurrent expenditures was likely due to

arrears of wage increase paid during the period.) This inference is that government needed ₦18.08 billion between 2012 and 2014 to finance additional recurrent spending. The government did not want to increase total expenditures for agriculture by that amount, given the fiscal consolidation policy that it was implementing. It, therefore, took as much funds as it possibly could from capital expenditure, i.e., ₦14.92 billion. This reduced the 'deficit gap' to ₦3.16 billion, which the government had to source from outside of the agriculture sector.

Table 7: Annual distribution of actual government expenditure on agriculture, 2004 to 2016

	Actual					Budget				
	Naira, billions			Share, %		Naira, billions			Share, %	
	Recur-rent	Capital	Total	Recur-rent	Capital	Recur-rent	Capital	Total	Recur-rent	Capital
2004	2.93	4.42	7.35	39.9	60.1	4.02	4.42		47.6	52.4
2005	3.17	6.54	9.71	32.7	67.3	4.13	6.73	10.86	38.0	62.0
2006	3.99	10.46	14.45	27.6	72.4	4.94	10.47	15.42	32.1	67.9
2007	3.83	14.62	18.46	20.8	79.2	5.00	11.13	16.13	31.0	69.0
2008	6.09	15.63	21.72	28.1	71.9	6.65	17.89	24.54	27.1	72.9
2009	20.36	138.93	159.28	12.8	87.2	23.79	138.93	162.71	14.6	85.4
2010	24.01	31.55	55.56	43.2	56.8	25.61	47.50	73.11	35.0	65.0
2011	29.12	66.32	95.43	30.5	69.5	34.88	31.40	66.28	52.6	47.4
2012	19.34	29.73	49.07	39.4	60.6	34.03	48.75	82.78	41.1	58.9
2013	27.07	25.05	52.12	51.9	48.1	32.93	51.31	84.24	39.1	60.9
2014	37.43	14.81	52.24	71.6	28.4	31.77	33.74	65.51	48.5	51.5
2015	27.08	4.31	31.39	86.3	13.7	32.41	8.89	41.30	78.5	21.5
2016	24.97	24.89	49.85	50.1	49.9	30.37	46.58	76.95	39.5	60.5
Average, 2004 to 2016	17.64	29.79	47.43	37.2	62.8	20.81	35.21	56.02	37.1	62.9

Source of Data: Audited Financial Statements of the Federal Government of Nigeria obtained from the Office of the Accountant General of the Federation

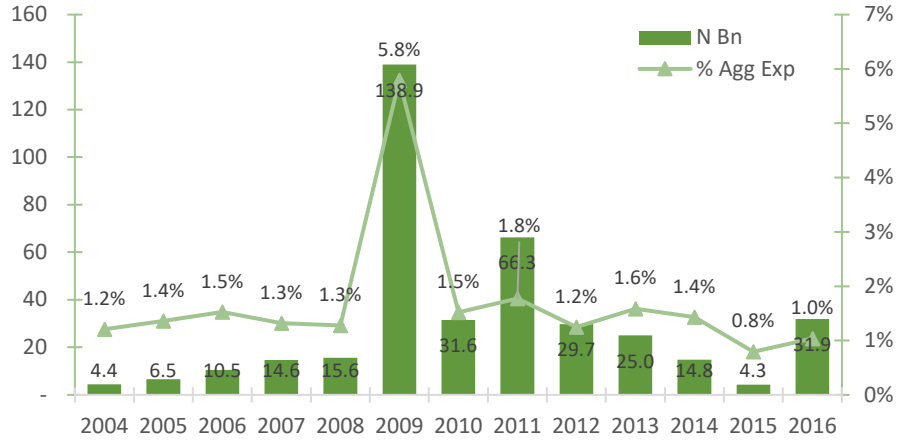
First, a cautionary note on capital spending in Nigeria – capital expenditure in Nigeria is not the same as investment or development expenditure in other contexts, because capital expenditure includes a large dose of what would qualify as recurrent expenditures elsewhere. For example, items like monitoring input subsidies, travel costs, workshops, training, computer and similar accessories, etc., are in the capital budget, rather than the development budget. The federal government began to informally recognize two components of the capital expenditure budget: "development" and "administrative" capital, to help determine the real development or investment content of the budget. However, the government has not yet incorporated this into the chart of accounts to formalize it.

The behavior of actual capital expenditures for agriculture and its share of aggregate capital expenditures closely mimic those of actual total expenditure for agriculture analyzed in Section 2, as Figure 10 shows. The pattern of spending falls generally into the same two epochs, pre-2010 and post-2009, rising and falling as discussed earlier. This behavior of capital spending should not be surprising, given the strong performance of capital in total agriculture spending, as discussed. Indeed, total expenditures for agriculture was following the pace dictated by capital expenditure, rather than vice versa.

Fiscal year 2012 marked the beginning of the government's fiscal consolidation (austerity) program, marked by tight expenditure controls across government. This explains the huge drop in capital spending in 2012 from the level in 2011. Disbursements for capital expenditures were low in that year because many agencies were unable to meet the with strict observance of existing procurement procedures, insisted on

by the Federal Ministry of Finance.[37] This led to low disbursement of capital expenditure across government in that year.

Figure 10: Outturns on capital expenditure for agriculture, Naira billions and percent of total aggregate capital expenditure



Source of Data: Audited Financial Statements of the Federal Government of Nigeria

Stricter enforcement of procurement regulations was central to the consolidation policy, which emphasized the 'quality' of expenditures above their quantity. The policy sought to limit expenditure to the absorptive capacity of the economy, rather than the approved budget.[38] Two factors affect absorptive capacity in Nigeria: the perennial late passage of the federal government budget and weak implementation capacity. The federal government completes the budget approval process around the middle to end of the second quarter of the fiscal year,[39] affording executing agencies six to eight months to plan and implement capital expenditures. Often, agencies sought to shorten the implementation process, by 'pressuring' the Bureau of Public Procurement to grant "no objection" waivers from procurement rules to enable them to achieve a reasonable level of implementation. Concurrence to abridge the procurement process could have led to higher capital expenditure disbursement, but it occasioned waste and other abuses. The fiscal consolidation policy sought to improve the quality of capital expenditure by funding only projects that complied fully with procurement rules.

The weak capacity problem arose from several factors, including the number of projects that individual agencies must implement. Some government agencies, including FMARD and its parastatals, carry more than 400 approved projects, both existing and new, at a time, excluding constituency projects.[40] Constituency projects are capital items that legislators insert in the executive budget when reviewing it for approval. Each of the 469 senators and representatives nominates a constituency project, which a federal agency executes under current arrangements. Agencies execute these constituency projects in addition to

[37] The mandate of the Ministry in 2012 included budget formulation and execution, and finance. The current administration split the functions into two in late 2015 by creating the new Ministry of Budget and National Planning, and a new Ministry of Finance.

[38] It is a legitimate question why the policy would not rather have limited the approved budget to absorptive capacity. This is a political economy question, with the executive and legislature contending on who makes the budget – the president who constitutionally proposes and assents to the approved budget to give it effect, or the legislature that must approve before the assent.

[39] Delays in approving the budget were due to late submission of the executive budget proposal to the National Assembly for review, untimeliness of legislative review, and delayed presidential accent arising from disagreements with the legislature over amendments made by the National Assembly in the process of reviewing the proposal.

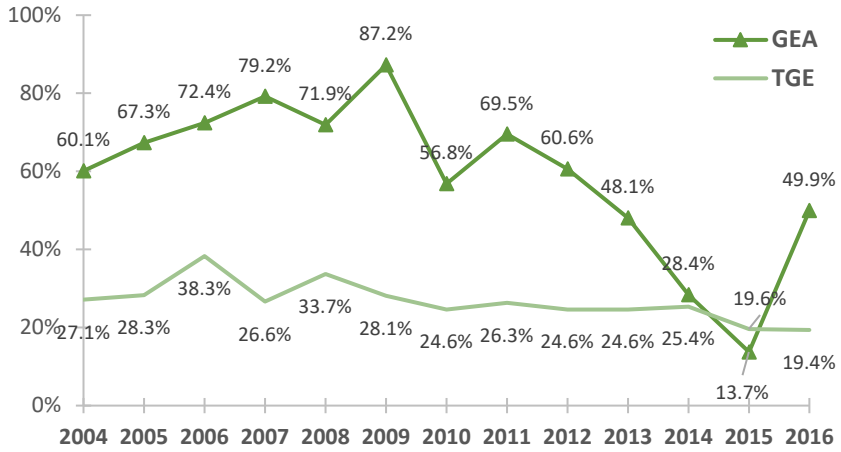
[40] For instance, the approved 2018 budget list 158 capital projects for FMARD Headquarters, and 17 for one of its 42 parastatals - The Federal College of Produce Inspection & Stored Products Technology, Kano.

their core or mandate projects.[41] Most government agencies suffer from a dearth of procurement and project management capacity; they do not have sufficient capacity to process, supervise, and monitor such large numbers of projects annually. Insistence on strict compliance with procurement rules helped to 'sanitize' procurement in 2012. However, it led to low level of budget implementation, including constituency projects, which attracted the displeasure of the National Assembly.

5.1. Performance of Capital and Recurrent Expenditures in Government Expenditures for Agriculture and Total Government Expenditures

Capital expenditure commanded a higher share in GEA than it did in TGE (Figures 5.13). This implies the converse, i.e., that the share of recurrent expenditure in GEA was lower than its share in TGE. The capital component of GEA averaged 58.9 percent between 2004 and 2016, whereas the capital component of TGE averaged less than half, at 26.7 percent in the same period. The capital component of expenditure was higher in GEA in each year, except 2015, when revenue shortfalls forced the government to reprioritize expenditures. The reprioritization did not favor capital expenditure for agriculture, which was only 13.7 percent of GEA. This compares adversely with the 19.6 percent share of capital expenditure in TGE for the year.

Figure 11: Comparison of capital expenditure shares of government expenditures for agriculture and total government expenditures, 2004 to 2016



Source of Data: Audited Financial Statements of the Federal Government of Nigeria

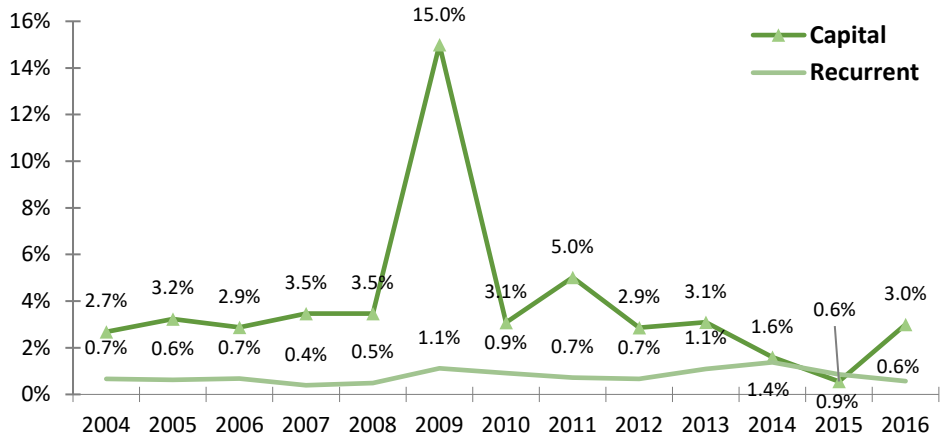
The higher level of capital expenditure for agriculture and the implied lower level of recurrent expenditure than economy averages are due to the less labor-intensive and the more capital-intensive nature of the federal government's role in agriculture. Nigeria's agriculture is certainly labor-intensive, as in most of sub-Saharan Africa. Statistics show that the agriculture sector dominates the Nigeria labor force of 77.5 million persons, as at the third quarter of 2017. According to the report, "48.19 of total workers in Nigeria were engaged in agricultural work, in which 29.59 of total workers worked full-time (40 hours per week), 12.13 worked 20-39 hours per week and 6.46 worked less than 20 hours per week".[42] However, much of the labor comes from family units engaged in subsistence farming, as private persons, and therefore are not on the government payroll. In addition, the federal government is not directly responsible for extension services and demonstration farming, which are the more labor-intensive aspects of public sector involvement in agriculture. Those are the responsibilities of state governments.

[41] Disagreements between the executive and legislature over constituency projects is the main cause of the perennial delay in approving the budget.

[42] National Bureau of Statistics, Labor Force Statistics Vol. 2: Employment by Sector Report (Q3 2017), January 2018, *p. 6.*

The share of agriculture total federal government recurrent expenditure was low, averaging 0.8 percent between 2004 and 2016 (Figure 12). The shares range between its lowest point of 0.4 percent in 2007 and its highest of 1.6 percent in 2014. As noted, the low share of recurrent expenditure is due to the limited role and the non-labor intensity of the federal government's role in agriculture. However, these factors do not explain the fluctuating nature of the shares. The fluctuations are due more to the unstable nature of total federal government recurrent spending than to developments in agriculture recurrent spending.

Figure 12: Shares of expenditures for agriculture in federal government total recurrent and capital expenditures, 2004 to 2016



Source of Data: Audited Financial Statements of the Federal Government of Nigeria

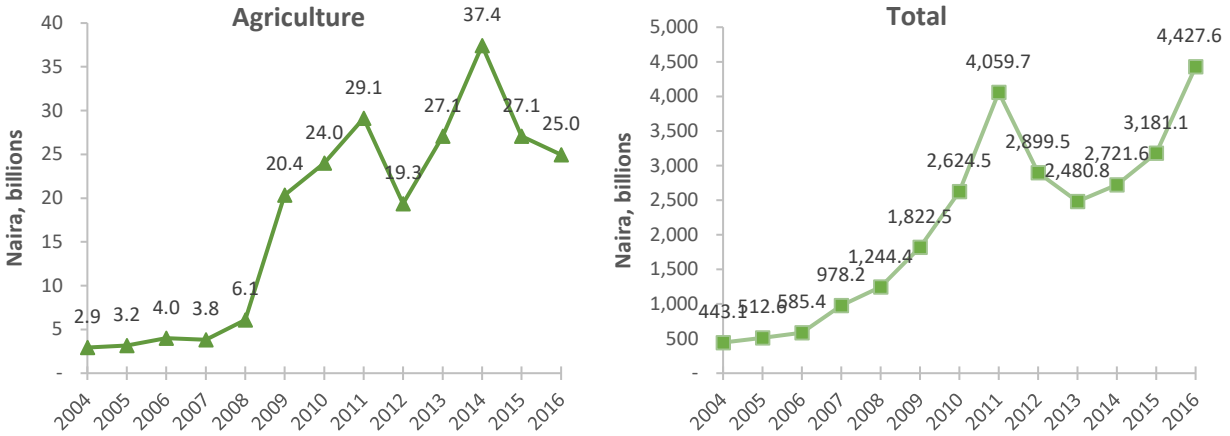
5.2. Predictability of Actual Recurrent and Capital Expenditures for Agriculture

Two factors affect the predictability of spending – oscillation of annual fund releases and deviations of actual from budgeted expenditure. The former measures fluctuations in annual expenditure, and the later its volatility. The two differ conceptually, although they both determine how predictable spending is. However, their causes and the approaches that might be used to address them differ. As discussed, the pervasiveness of an inability to adhere to the approved budget signifies inherent problems with the planning and budgeting process in the federal government, including errors in costing, forecasting, carrying excessive numbers of projects beyond what the budget can fund, weaknesses in the budget scrutiny and approval process, and excessive political interference with the planning and budgeting process. Extreme highs and lows in annual disbursements symptomizes a poor approach to cash planning, e.g., using cash rationing in place of disciplined cash planning and budgeting.

Annual Fluctuations

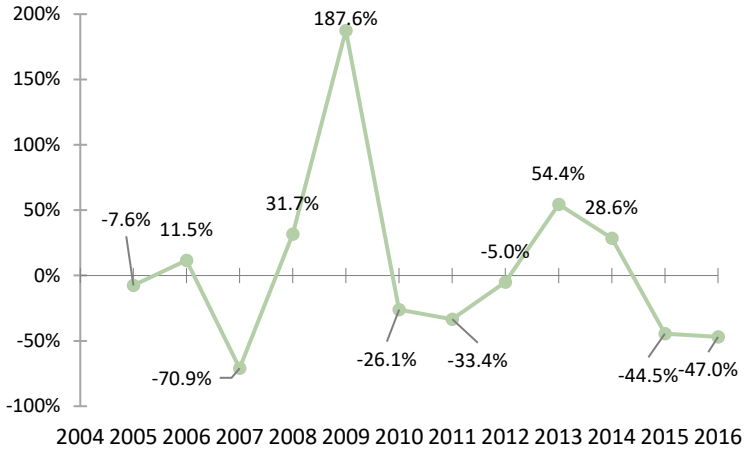
Both actual recurrent expenditures for agriculture and actual total federal government recurrent expenditure fluctuated between 2004 and 2016, but recurrent expenditures for agriculture fluctuated more wildly. Figure 13 plots recurrent expenditure outturns for agriculture and the federal government, while Figure 14 presents the differences in their annual rates of change, i.e., agriculture recurrent minus total recurrent. The figures clearly show that the behavior of agriculture recurrent expenditures was less predictable than that of total recurrent expenditure. Visual inspection of Figure 14 shows that, while total recurrent expenditure behaved more erratically in years from 2012, recurrent expenditures for agriculture was erratic throughout the period. Figure 14 shows this more clearly by plotting by what percentage recurrent spending in agriculture increased or decreased annual compared to total recurrent expenditure. This difference was not zero in any year. Overall, annual changes in recurrent expenditures between 2005 and 2016 averaged 30.9 percent for agriculture and 24.3 percent for total recurrent.

Figure 13: Trends and patterns of recurrent expenditure – agriculture versus total federal government, 2004 to 2016



Source of Data: Audited Financial Statements of the Federal Government of Nigeria

Figure 14: Difference in annual changes in recurrent expenditure – agriculture versus total federal government, 2004 to 2016



Source of Data: Audited Financial Statements of the Federal Government of Nigeria

The more erratic behavior of total recurrent expenditures from 2012 reflects the impact of the fiscal consolidation policy of the federal government introduced from that year. The downward trend of total expenditures in 2012 and 2013 and the gentle rise in 2014 and 2015 reflect the tight fiscal controls of the period. The jump in 2016, on the other hand, illustrates the policy reversal discussed earlier, i.e., the expansionary fiscal stance of the new government that took office in mid-2015.

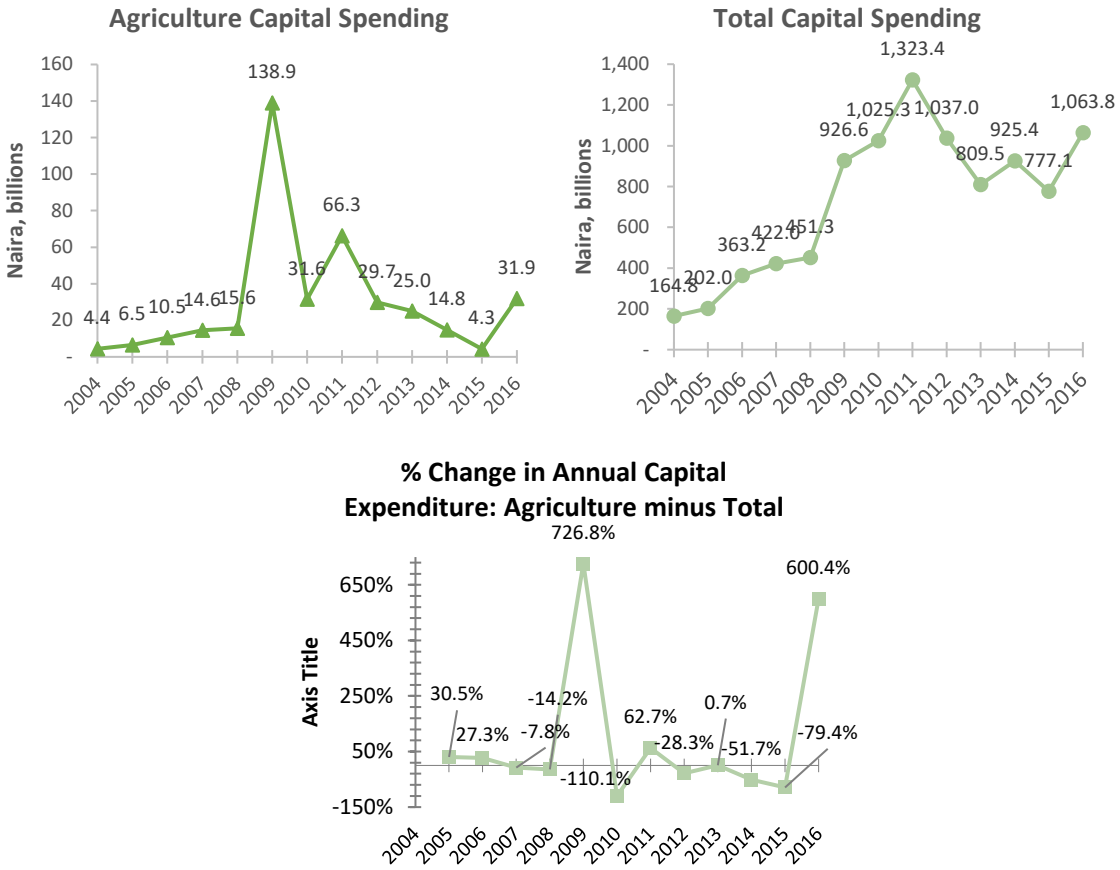
The instability of recurrent expenditures for agriculture raises concerns. Stability of recurrent expenditure for agriculture is important for the maintenance of installed capacity and the level of services. Ideally, recurrent expenditure should fund personnel costs and running (or operations and maintenance) costs of installed capacity. Managers need an appreciable level of predictability to plan effectively, at least, to maintain services at current level. In practice, the extent to which instability of recurrent expenditures affect service delivery depends on its composition, i.e., whether it provides for operations and maintenance.

Traditionally, recurrent expenditure in the federal government's budgets, including for agriculture, does not provide for the operations and maintenance costs of operations. Recurrent expenditure comprises personnel and overhead costs, but the overheads are administrative, and not technical or operational in nature. It does not provide for operational supplies, e.g., research and other consumables; operational

travel, including for supervision and monitoring and evaluation; fuel and lubricants; vaccines; pesticides; herbicides; etc. Any provision for such costs is more likely to be under capital expenditure. Consequently, stability of recurrent expenditure may have little real operational impact; but it often constitutes an excuse for non-performance.

Capital expenditure for agriculture was also more erratic than total overall capital expenditure of the federal government between 2004 and 2016, as the charts in Figure 15 illustrate. As explained earlier, the fall in oil prices affected, if not fully explained, the fall in agriculture capital expenditure in 2015. The government prioritized expenditures against capital agriculture in the face of declining revenues.

Figure 15: Trends and patterns of capital expenditure – agriculture versus total federal government, 2004 to 2016



Source of Data: Audited Financial Statements of the Federal Government of Nigeria

Volatility of Spending

Deviations of actual from budgeted recurrent expenditure for agriculture was above the minimum acceptable good practice of no more than 15 percent. The deviations averaged 19.3 percent between 2004 and 2016 (Table 8). The deviation (in absolute percentage) was above 15 percent each year except from 2008 to 2010. The highest level of deviation was in 2012, the first year of the fiscal consolidation policy of the federal government, at 43.2 percent. A high level of budget deviation signifies volatility of funding, which makes it difficult to plan.

The effect of perennial failure to fund budgeted recurrent expenditure depends on what it affects, i.e., whether personnel or overhead costs, and the nature of overhead costs. Generally, it affects the level

of operations. However, as noted, overheads in federal government's budgets do not include running costs of operations.

Table 8: Deviation in recurrent and capital expenditure for agriculture, actual minus budget, 2004 to 2016

	Recurrent			Capital		
	Naira, billions		percent	Naira, billions		percent
	Approved	Outturn	Absolute deviation	Approved	Outturn	Absolute deviation
2004	4.02	2.93	27.0	4.42	4.42	0.0
2005	4.13	3.17	23.2	6.73	6.54	2.9
2006	4.94	3.99	19.3	10.47	10.46	0.1
2007	5.00	3.83	23.3	11.13	14.62	31.4
2008	6.65	6.09	8.4	17.89	15.63	12.6
2009	23.79	20.36	14.4	138.93	138.93	0.0
2010	25.61	24.01	6.3	47.50	31.55	33.6
2011	34.88	29.12	16.5	31.40	66.32	111.2
2012	34.03	19.34	43.2	48.75	29.73	39.0
2013	32.93	27.07	17.8	51.31	25.05	51.2
2014	31.77	37.43	17.8	33.74	14.81	56.1
2015	32.41	27.08	16.4	8.89	4.31	51.5
2016	30.37	24.97	17.8	46.58	31.87	31.6
Average, 2004 to 2016	20.81	17.64	19.3	35.21	30.33	32.4

Source of Data: Audited Federal Government Financial Statements: 2004 - 2016

Capital expenditure for agriculture was even more volatile, averaging 32.4 percent in absolute terms. Capital expenditure deviations from the budget were above 50 percent in four years – 2011, 2013, 2014, and 2015 (Table 8). However, the deviations were below the 15 percent "good practice" mark in five years: 2004 to 2006 and 2009. In fact, the level of disbursements to capital expenditures for agriculture observed international good practice standards in the pre-2010 era, when the federal government agriculture policy treated agriculture as a development function of the government. FY 2007 (31.4 percent) was the only year in that period that capital disbursements fell short of good practice. This confirms he observation of relative less volatility of government expenditures for agriculture in that era. The volatility in disbursements to agriculture observed in that era resulted from recurrent expenditures.

In conclusion, uncertainty of capital expenditures affects planning. Managers are reluctant to plan commitment since they are unsure of how much funds they will receive, despite the approved budget. This usually leads to asymmetric development, which delays achievement of goals and targets. It also leads to uncompleted projects, cost overruns occasioned by contract variations due to delays in completing projects, and waste.

6. CONCLUSION AND POLICY IMPLICATIONS

This analysis reviewed the Federal Government of Nigeria's expenditures for agriculture from 2004 to 2016. It examined expenditure outturns (total and with main economic breakdown) and compared this to approved expenditures. It also reviewed trends in expenditure outturns in agriculture with trends in aggregate expenditure and several other key sectors. Two key points emerge from this analysis.

First, funding reflected defined policy stances. Spending before 2010 emphasized the government's policy of treating agriculture as a development function of the government, in which the government had to set the pace for the private sector to follow. Subsidized input (seed, fertilizers, agro chemicals) procurement and distribution, and government-led research, development, and technology adaptation

were important elements of this policy, prosecuted through various presidential initiatives. The relatively more stable and mostly rising trend of pre-2010 expenditures was to ensure steady funding. The paradigm change of 2010 to agriculture as a private sector-driven business activity influenced post-2009 expenditures, as did the fiscal consolidation (austerity) policy of government from 2012. Allocations fell significantly in response to the reduction in government direct involvement in production activities in the sector. The government constrained itself to the functions of facilitation, policy regulation, and promotion. Finally, the replacement of fiscal consolidation with fiscal expansion in 2016 has occasioned huge expansion of budgetary allocations to agriculture. However, the level of funding averaged only 1.7 percent of total government expenditures during the period, which is far from the AU target of 10 percent.

Second, the nature of funding makes expenditures volatile and unpredictable. The level of actual agriculture expenditures varies widely from year to year and annual significant deviations between budgeted and actual expenditures makes them unpredictable. The combination of unpredictability and volatility of expenditures can result in poor quality (and possibly quantity) of spending, i.e., technical and allocative inefficiency. The agriculture sector may not be able to tackle this problem alone, since the phenomenon of inadequacies in the level and pattern of funding is systemic to the public financial management system, and not peculiar to agriculture. It will require the federal government to address the political economy issues behind the annual executive and legislature battles that delay approval of the budget until five to six months into the fiscal year and distorts the alignment between the fiscal (budget) year and the financial reporting year. Studies are also necessary to understand the extent to which inadequate planning and budget management capacities within the agriculture sector contribute to the problem.

REFERENCES

CAADP/NEPAD (Comprehensive Africa Agriculture Development Programme / New Partnership for Africa's Development). 2015. *The AU Guidance Note on Tracking and Measuring the Levels and Quality of Government Expenditures for Agriculture*. Addis Ababa: African Union.

Ethan, S., & Umar, A. 2001. "Water conservation and management in semi-arid and arid lands for sustainable agriculture." *Journal of Sustainable Agriculture*, 18 (1): 99-108.

Federal Republic of Nigeria. 1999. *Constitution of the Federal Republic of Nigeria* (as amended to date). Abuja: Federal Republic of Nigeria.

Nkonya, E., Phillip, D., Mogues, T., Pender, J., & Kato, E. 2012. "Impacts of Community-driven Development Programs on Income and Asset Acquisition in Africa: The Case of Nigeria." *World Development, 40* (9): 1824-1838.

Okonjo-Iweala, N. 2018. *Fighting Corruption Is Dangerous*, Cambridge, MA: The MIT Press.

Olomola, A.S., T. Mogues, T. Olofinbiyi, C. Nwoko, E. Udoh, R.A. Alabi, J. Onu, and S. Woldeyohannes. 2014. *Analysis of Agricultural Public Expenditures in Nigeria: Examination at the Federal, State, and Local Government Levels*. IFPRI Discussion Paper 01395. Washington, DC: International Food Policy Research Institute.

Oparinde, A. and E. Birol. 2012. "Farm Households' Preferences for Cash-based Compensation versus Livelihood-enhancing Programmes: A Choice Experiment to Inform Avian Flu (HPAI H5N1) Compensation Policy in Nigeria." *Journal of African Economies*, 21 (4): 637–668.

Osakwe, E.N. 2017. *Nigeria - Agriculture Sector Development Policy Operation: audited financial statement - period February 2014 - February 2015*. Abuja: Auditor General for the Federation.

PEFA (Public Expenditure and Financial Accountability). 2016. *Framework for assessing public financial management*., Washington DC: PEFA Secretariat.

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Acknowledgments

This paper has been prepared as part of the Feed the Future Nigeria Agricultural Policy Project. We are grateful to the United States Agency for International Development (USAID) and the CGIAR Research Program on Policies, Institutions, and Markets (PIM) for providing financial assistance to conduct this study. Work toward an earlier version of this paper was produced with the financial support of the Monitoring and Analysing Food and Agricultural Policies (MAFAP) program of the Food and Agriculture Organization of the United Nations (FAO).

The authors are grateful to Alex Adeyemi, Sylva Okolie-aboh, and James Nongo, directors at the Office of the Accountant General of the Federation (OAGF) for facilitating data access and explaining key issues, especially relating to the country's adoption of IPSAS cash accounting in 2014 and accrual accounting in 2016. The authors also thank Paul Chinda, Chairman of the Public Accounts Committee (PAC) of the Federal House of Representatives, and Anthony M. Ayine, Auditor General for the Federation. Their views expressed at various public workshops from April to July 2018 clarified certain issues and afforded insights.

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The Nigeria Strategy Support Program (NSSP) is managed by the International Food Policy Research Institute (IFPRI) and is financially made possible by the generous support of the American people through the United States Agency for International Development (USAID) in connection with the Feed the Future Nigeria Agricultural Policy Project. The research presented here was conducted as part of the CGIAR Research Program on Policies, Institutions, and Markets (PIM), which is led by IFPRI. This publication has been prepared as an output of NSSP. It has not been independently peer reviewed. Any opinions expressed here belong to the author(s) and do not necessarily reflect those of IFPRI, USAID, PIM, or CGIAR.