

Osei, Robert Darko

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## Aid, growth and private capital flows to Ghana

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Working Paper No. 2012/22

## **Aid, Growth and Private Capital Flows to Ghana**

Robert Darko Osei\*

February 2012

### **Abstract**

This study provides an analysis of the aid-private capital flows-growth nexus for Ghana. It is premised on the argument that Ghana's new status as a middle income country plus the start of oil production is bound to result in a reduction in ODA inflows in the long term. However in the short to medium term ODA will remain an important component in the country's fiscals as well as an important tool for leveraging government policy. One of the key questions that the study addresses is how aid can be used as to reinforce the country's growth in a way that reduces its chances of being a victim of the 'oil curse'. The study makes two key observations about the economy of Ghana. First, it notes that although the structure of the economy has changed over the years, the observed change has not been of the developmentally transformative type. Production within the economy still takes place on the lower end of the technology scale and the country's exports is still dominated by primary products. Second, it notes that revenue from oil can at best replace foreign aid in the long run. However in the short to ...

Keywords: aid, oil production, structural change

JEL classification: H60, O11, O13

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\* Institute of Statistical Social and Economic Research, University of Ghana, email: rosei@ug.edu.gh

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... medium term, Ghana will have the complement of both oil and aid. It there behoves on the country that aid is used in an efficient and creative way so as to help improve productivity and production in agriculture and manufacturing. The study concludes by making two suggestions as to how aid can be used to help transform the economy. The first suggestion is to tackle the structural deficiency in the country's fiscals in a decisive way. The second is the need to properly prioritize public investments so as to maximize their returns.

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UNU World Institute for Development Economics Research (UNU-WIDER)  
Katajanokanlaituri 6 B, 00160 Helsinki, Finland

Typescript prepared by Janis Vehmaan-Kreula at UNU-WIDER

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## **1 Introduction**

Ghana has made noteworthy progress in promoting development on both the political and economic front. Although the economy has grown at a reasonable rate over the last decade, continuing at this level will not deliver the ‘Asian Miracle-type’ transformation that it seeks, even with the discovery and production of oil. Indeed even the current economic growth situation remains precarious. Growth and structural change have been mainly driven by public investment (financed from aid) and private investments (particularly the efficiency-seeking type) have been slow to respond. The fiscal situation in particular, remains worrisome with internal budgetary slippages and continued pressure for increases in recurrent spending.

The start of oil production will undoubtedly engender increased foreign direct investment (FDI), particularly that which is targeted at prospecting and upstream activities. The potential of FDI to contribute to development is well documented. However the nature and degree of the benefits is known to differ depending on the type of FDI. For instance it is argued that the efficiency-seeking type of FDI which tends to have larger developmental impacts as compared to the resource-seeking type, have been low to Ghana (Barthel et al. 2011).

External capital (both official and private) constitutes an important source of financing development projects in Ghana. The country’s new status as a lower middle income country will on the one hand mean that in the medium- to long-term concessional lending and grants (official aid) is likely to reduce. On the other hand this new status could also increase its credit ratings and consequently give the country more access to private capital. However borrowing from the private market is more expensive and requires a more efficient use of the funds than is currently the case. Overseas Development Assistance (ODA) will therefore remain an important source of development finance for Ghana in the short- to medium-term.

Unfortunately neither the prospect of the oil revenue nor the increased FDI that is anticipated can be considered as panaceas for avoiding ‘Dutch disease’ problems or indeed guarantee a move to a path of higher growth and sustained human development. The fiscal imbalances and structural weaknesses that persist make any significant developmental transformation within the economy a challenge. There is the need to increase efficiency in public finances and also strengthen the linkages between the emerging oil sector and the rest of the economy. In line with this and in view of the fact that current ODA levels can only be maintained in the short- to medium-term, an important question that needs to be answered is how ODA can be used to help improve efficiency of public spending and help improve linkages with key sectors of the economy? A second and related question is whether ODA can be used as leverage in attracting more efficiency-seeking type of investments. These questions among others form the basis of this study.

## **2 Current economic situation in Ghana**

As the first country south of the Sahara to gain political independence in 1957, Ghana has often been touted as the beacon of hope for Africa. However, the country’s economic development has not always met expectations. The country has made important political and economic strides in recent years. It has held two democratic elections in the past decade, each followed by a peaceful transition of political power.

Both economic and political management has continued to improve over the last two decades placing the country in a very good stead for regional stability in West Africa. The economic benefits have been tangible with growth remaining positive over a long period and in more recent years (over the last 10 years) increasing. The country is also on track to cut the prevalence of extreme poverty in half by 2015 relative to the level experienced in 1990. However there remain many challenges on the economic front in Ghana today. We discuss the current state of the Ghanaian economy today when the country has attained lower middle income status and has just started oil production.

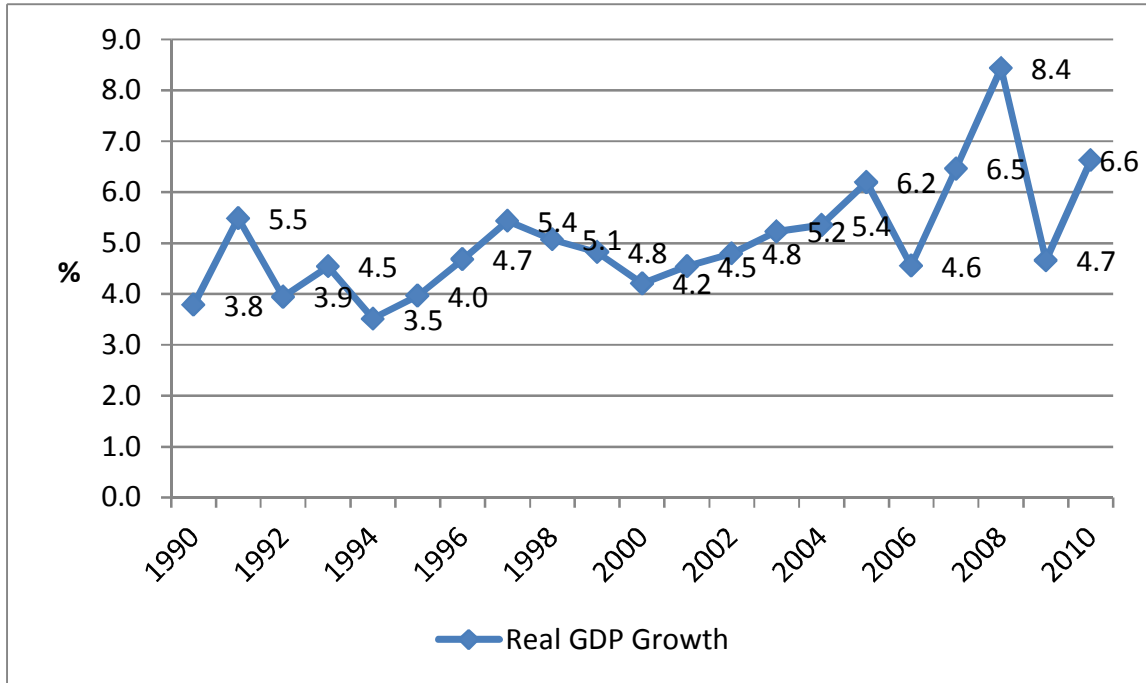
## **2.1 Growth**

Economic growth in Ghana was often oscillatory and on average negative before the mid-1980s. This was a reflection of poor policy choices and missed opportunities, and unsurprisingly some authors have labelled this period as the ‘black years’ (see Killick 2010). However this pattern of growth changed from the mid-1980s when Ghana started with the implementation of the Economic Recovery Programme (ERP). Between 1990-2000 economic growth averaged about 4.5 per cent, further increasing over the next decade (2001-10) and averaging about 5.6 per cent annually. There are two key features of the trends in economic growth in Ghana. First, we see a marked reduction in the volatility in growth over the last twenty years. Second, there seem to be the beginnings of an acceleration in Ghana’s growth. Both these features are positive. However, in spite of these very positive developments it is also important to note that the threat from a negative external shock as well as internal fiscal slippages remains and must not be lost on any analysis of the economic situation in the country. Indeed the negative external shock (from both the recent financial and recent food crisis) as well as the large fiscal deficits of 2008 together account for the decrease in growth that was recorded over the last two years of the sample (Figure 1).

## **2.2 Sectoral composition of GDP in Ghana**

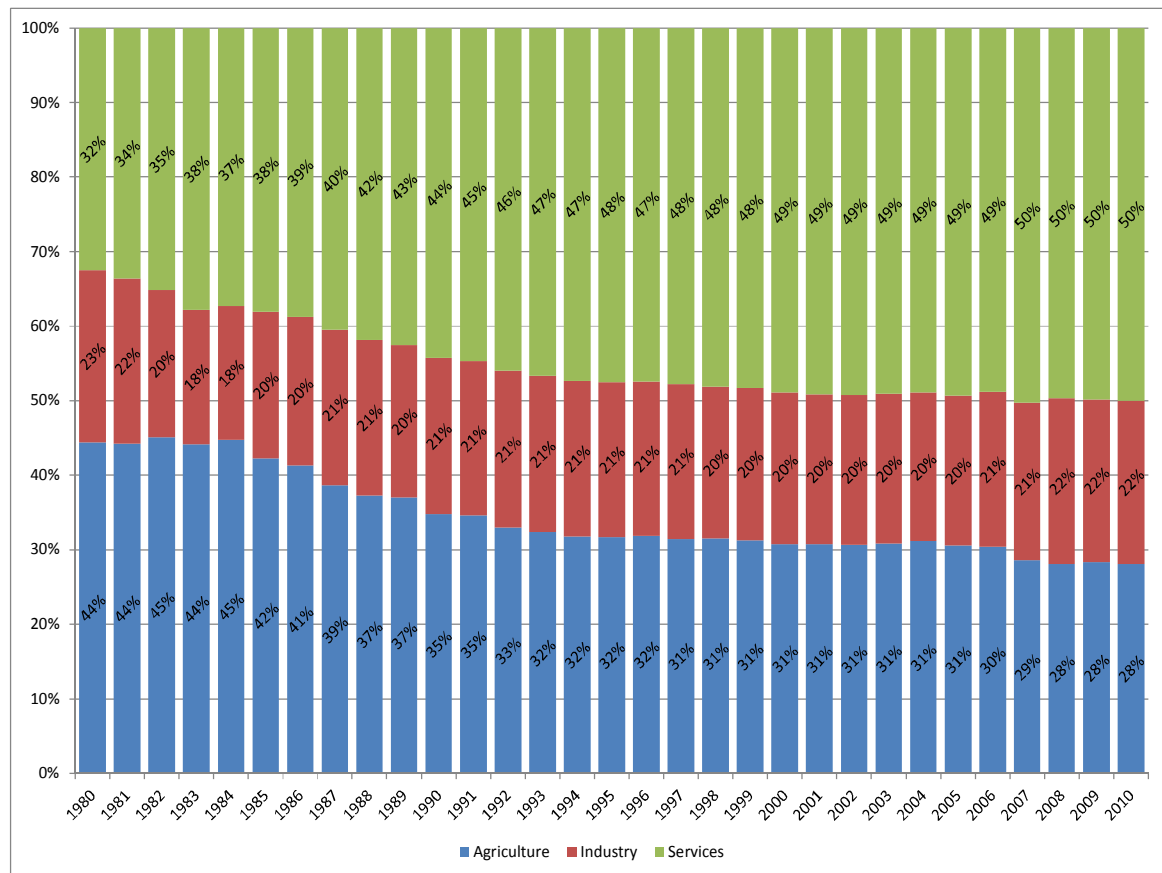
Historically, the agricultural sector has been an important sector of the Ghanaian economy in terms of contribution to GDP, export and employment. The changing pattern in the contribution to GDP of the different sectors can be clearly discerned. We note in particular the increased service sector share in GDP over the years. Indeed the service sector became the most important sector since the early 1990s according to the most recent data from the Ghana Statistical Service and based on the rebased data. In 2010 the contribution of the service, agriculture and industry to GDP were respectively 50 per cent, 28 per cent and 22 per cent (Figure 2). This represents quite a change from say the 1980s shares of 32 per cent, 44 per cent and 24 per cent respectively. There are two important features of the observed trends that need to be highlighted. First as already mentioned, the services sector has become the most important in terms of contribution to GDP, having overtaken the agriculture sector. Second, the share of industry seems to have decreased over the years in spite of record prices in gold over the last few years. Does this new pattern signify structural transformation associated with modernization (i.e. increased utilization of modern productive technologies with increasing use of financial and human capital)? We discuss this by looking at the contributions of the various sectors to the changes that have been observed.

Figure 1: Real GDP growth rates of Ghana, 1990-2010



Source: Author's illustration based on data obtained from Ghana Statistical Service (2011).

Figure 2: Sectoral contributions to GDP: 1990-2010



Source: Author's illustration based on data obtained from Ghana Statistical Service (2011).

We note from Table 1 that within the services sector the big gains have been in the transport storage and communications, wholesale, retail trade, restaurants and hotels, and finance insurance, real estate and business services, in that order. These sub-sectors have helped with the increased importance of the services sector. For industry although its importance has remained largely unchanged we note that construction, electricity and water, and mining seemed to have increased. The manufacturing sub-sector saw a decline over the period—decreasing from the 1980 share of about 15.3 to about 8.5 per cent in 2010. Within the agriculture sector, fishing sub-sector seemed to have reduced the most—from 4.1 per cent in 1980 to about 2.3 per cent in 2005 and then to about 2.1 per cent in 2010. These trends show quite clearly that the relative importance of the different sectors in GDP has shifted from agriculture to services. However, whether the change in the structure is growth-enhancing depends on the relative productivity of the agriculture and services sectors (see McMillan and Rodrik 2011). We explore this issue some more in subsequent sections of this study.

### **2.3 Poverty in Ghana**

We discuss the trends in poverty using the last three waves of the Ghana Living Standards Surveys (GLSS III, GLSS IV, and GLSS V). Based on the upper poverty line, we note that the proportion of Ghanaian households described as poor was about 51.7 per cent in 1991/92 and decreased to 39.5 per cent in 1998/99 and further to 28.5 per cent in 2005/06 (Figure 3). The actual number of poor has also decreased over this period—from about 7,931,000 individuals in 1991/92 to 7,203,000 in 1998/99 and then 6,178,000 in 2005/06. This reduction in poverty coincided with very positive economic growth over the period. However the reduction in poverty also coincided with increasing inequality. Inequality as measured by the Gini coefficient has increased consistently over the period—from around 0.373 in 1992 to 0.394 in 2006 (GSS). This suggests that the poorest of the poor have participated much less in the growth and poverty reduction over this period.

Generally, the surveys reflect the fact that poverty in Ghana has many dimensions. Poor communities are characterized by low income, malnutrition, ill health, illiteracy, and insecurity. These different attributes reinforce each other to keep households, and at times whole communities, in persistent poverty (GSS 2000). Moreover, as in other sub-Saharan Africa countries, poverty in Ghana is a rural phenomenon and has an ‘agricultural face’. Rural poverty incidence remains about 4 times that of urban poverty incidence (Table 2). We note that within the rural areas, about 46 per cent of food crop farming households are poor. In fact, for all the economic activities (except food crop farmers) major strides were recorded over the 1991 to 2005 period in terms of a reduction in the incidence of poverty—for all the categories the incidence of poverty at least halved between the periods 1991/92 and 2005/06.

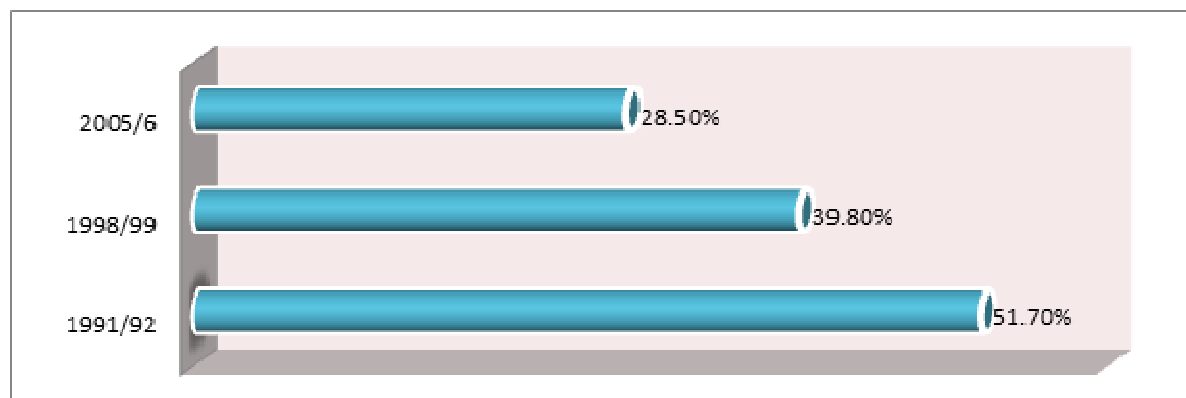
Table 1: Composition of agriculture, industry and services in Ghana, 1990–2010 (% GDP)

	1980	1993	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Agriculture</b>	<b>44.4</b>	<b>32.4</b>	<b>31.7</b>	<b>30.8</b>	<b>30.7</b>	<b>30.7</b>	<b>30.9</b>	<b>31.2</b>	<b>30.5</b>	<b>39.3</b>	<b>30.4</b>	<b>28.6</b>	<b>28.1</b>	<b>28.4</b>
Agriculture and livestock	32.4	23.6	22.9	21.6	21.7	21.8	21.8	21.6	21.0	26.0	20.7	19.9	19.8	20.5
Cocoa production and marketing	3.5	2.0	2.3	2.4	2.2	2.1	2.4	2.9	3.1	5.1	3.0	2.6	2.5	2.5
Forestry and logging	4.4	3.4	3.3	4.2	4.2	4.3	4.3	4.2	4.2	3.8	4.1	3.8	3.4	3.3
Fishing	4.1	3.3	3.2	2.6	2.5	2.5	2.4	2.5	2.3	4.4	2.5	2.2	2.4	2.1
<b>Industry (ex oil)</b>	<b>23.1</b>	<b>21.0</b>	<b>20.8</b>	<b>20.4</b>	<b>20.1</b>	<b>20.1</b>	<b>20.1</b>	<b>19.9</b>	<b>20.1</b>	<b>0.0</b>	<b>20.8</b>	<b>21.1</b>	<b>22.2</b>	<b>21.8</b>
Mining and quarrying	2.8	2.9	3.0	2.8	2.7	2.7	2.6	2.6	2.6	5.4	2.8	2.9	2.7	2.7
Oil production	0.0									0.0	0.0	0.0	0.0	0.0
Manufacturing	15.3	11.3	10.8	10.6	10.5	10.5	10.5	10.4	10.3	9.6	10.2	9.7	9.2	8.5
Electricity and water	1.0	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.7	3.4	2.1	1.9	1.8	1.8
Construction	4.0	5.1	5.2	5.2	5.2	5.2	5.3	5.3	5.5	9.4	5.7	6.7	8.6	8.8
<b>Services</b>	<b>32.5</b>	<b>46.6</b>	<b>47.5</b>	<b>48.8</b>	<b>49.1</b>	<b>49.2</b>	<b>49.1</b>	<b>48.9</b>	<b>49.4</b>	<b>32.0</b>	<b>48.8</b>	<b>50.3</b>	<b>49.7</b>	<b>49.8</b>
Transport storage and communication	9.3	14.0	14.4	15.0	15.1	15.3	15.3	15.3	15.6	5.5	15.9	16.5	16.1	16.1
Wholesale and retail trade, restaurants and Hotels	6.7	9.3	9.7	10.6	10.6	10.7	10.7	10.7	11.1	8.0	11.4	11.4	11.4	11.1
Finance, insurance, real estate and business Services	5.4	7.3	7.3	7.4	7.4	7.4	7.4	7.4	7.5	4.8	7.8	8.1	7.7	7.5
Government services	8.1	10.2	10.5	10.2	10.3	10.2	10.0	9.9	9.8	11.6	9.9	10.4	10.7	11.2
Community, social and personal services	3.1	5.8	5.7	5.7	5.7	5.7	5.6	5.5	5.4	2.0	3.7	3.9	3.9	3.9

Source: Based on data from Ghana Statistical Service (2011).



Figure 3: Ghana: poverty trends, 1991-2006



Source: Author's illustration based on data from Ghana Living Standard Surveys III, IV and V.

Table 2: Incidence of rural poverty, by economic activity (1991–2006)

Period	1991/92	1998/99	2005/06
Rural poverty incidence	63.6	49.5	39.2
Urban poverty incidence	27.7	19.4	10.8
	Rural poverty incidence		
Public sector	39.1	25.2	13.9
Private formal	26.2	15.8	14.5
Private informal	35.4	28.9	14.1
Export farmers	53.3	30.1	16.3
Food crop farmers	58.3	50.1	45.5
Non-farm self-employed.	42.2	33.3	25.3
Not working	23.9	30.4	19.3

Note: The head-count poverty measure is what is used here. This is essentially based on the adult equivalent total consumption expenditure for the household.

Source: Based on data from Ghana Living Standards Survey, waves III, IV and V.

## 2.4 Employment

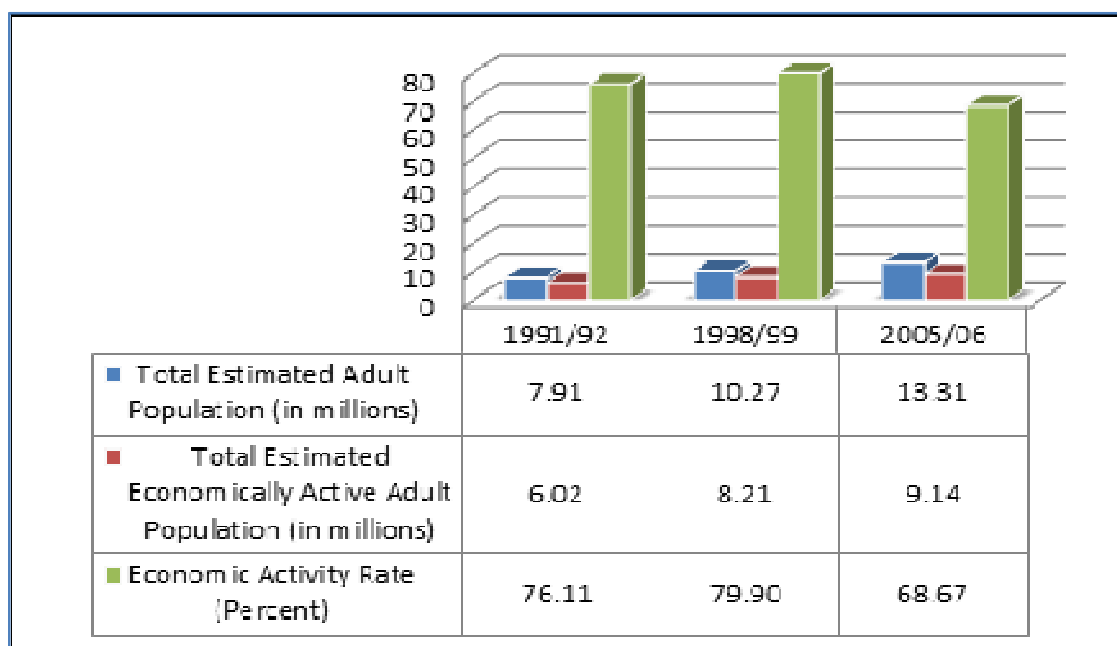
We analyse the trends in employment over the three waves of the Living Standards Survey for Ghana. Definition of the economically active is based on the standard labour force framework categorization. At any given time, an economically active person may either be employed or unemployed. The currently active population consists of all those above a certain specific age who did any work (one hour or more) in the last seven days, together with all those who were unemployed during the last seven days but who were available to work (GSS 2007).

Figure 4 shows economic activity rates in Ghana between 1991/92 and 2005/06. The data suggests that out of a total adult population of about 8 million in 1991/92, about 6 million people were economically active, translating into an economically active rate of

about 76 per cent. The economically active rates, also called labour force participation rates, increased to 79.9 per cent in 1999 but declined to 68.7 per cent in 2005/6. The decrease in the economic activity rate over the 1998-2006 period is indeed worrying. A likely hypothesis is that an increasing number of adults are going to school. This is a testable hypothesis but does not form the focus of this study.

A breakdown of the employed by economic activity reveals some interesting findings. We note that the agricultural sector remains the most important sector in terms of employment. Even though agriculture share of employment declined from 62.2 per cent of the total labour force in 1991/92 to 55.8 per cent in 2005/06, the sector still employs more than half of the labour force (Table 4). Historically, trading and manufacturing, in that order, are the next significant sources of employment after agriculture in Ghana. The trends show that the increasing numbers of economically active population are being absorbed relatively less by the agriculture sector. We note for instance that the annual growth in employment in the agriculture sector over the period 1991-2006 has been lower than the growth in the potential labour force. Indeed over the period the annual growth in employment was recorded for utilities (8.3 per cent), construction (6.1 per cent), and mining and quarrying (5.5 per cent) in that order.

Figure 4: Trend of economic activity rate between 1991 and 2006 (%)



Source: Author's illustration based on data from Ghana Living Standard Surveys III, IV and V.

The unemployed are defined as the economically active population in the 15 to 64 years cohort who were not working in the seven days prior to the survey but were available for work. In Table 3 we show the national unemployment rate based on this definition. We note that the unemployment rate increased from about 4.7 per cent in 1991/92 to about 8.2 per cent in 1998/99, but decreased to 3.6 per cent in 2005/06. The unemployment rate remained higher in the urban areas than in the rural areas over the period. We also note that the unemployment rate for females was slightly higher than that for males, particularly for rural areas.

Table 3: Unemployment rates between 1991/92 and 2005/06 for adults aged, (15-64) years, (%)

Locality	Sex	1991/92	1998/99	2005/06
Urban	Male	9.9	13.9	6.5
	Female	12.5	13	6.2
	All	11.3	13.4	6.3
Rural	Male	1.1	4.3	1.4
	Female	2.2	6.4	1.7
	All	1.7	5.5	1.6
National	Male	3.7	7.5	3.5
	Female	5.4	8.7	3.6
	All	4.7	8.2	3.6

Source: Based on data from Ghana Living Standard Survey III, IV and V.

Table 4: Distribution of the currently employed population aged 15–64 years, by industry group

Main industry	% of Economically active (millions)						Annual growth
	1991/92	1998/99	2005/6	1991/92	1998/99	2005/6	
Agriculture	62.2	55	55.8	3.74	4.52	5.10	2.2%
Mining/Quarrying	0.5	0.7	0.7	0.03	0.06	0.06	5.5%
Manufacturing	8.2	11.7	10.9	0.49	0.96	1.00	5.1%
Utilities	0.1	0.2	0.2	0.01	0.02	0.02	8.3%
Construction	1.2	1.4	1.8	0.07	0.11	0.16	6.1%
Trading	15.8	18.3	15.2	0.95	1.50	1.39	2.7%
Transportation/communication	2.2	2.2	2.8	0.13	0.18	0.26	4.8%
Financial services	0.5	0.8	0.3	0.03	0.07	0.03	-0.7%
Community/Social services	9.3	9.8	8.6	0.56	0.80	0.79	2.5%
Other	0	0	3.7	0.00	0.00	0.34	
Total	100	100	100	6.02	8.22	9.14	3.00%

Notes: These employment classifications are only based on the primary (main) occupation of adults.

Source: Based on data from Ghana Living Standard Surveys (III, IV and V).

### 3 Structural change in the Ghanaian economy

We have observed that both in terms of contribution to GDP, and also in terms of the importance of the different sectors in providing employment, there are some varying degrees of changes. Some of the key features that we have observed are as follows:

- Share of agriculture and industry in GDP have declined whilst services has increased.

- The importance of agriculture in employment has decreased but remains high.
- The incidence of poverty has only reduced marginally for food crop farmers and remains highest among the different economic activity categories. However export farmers experienced the biggest drop in the incidence of poverty in the 1991-2006 period.

They are two important questions that we wish to address based on this evidence. First, is whether these changes reflect ‘structural change’ in the economy. Second, are the observed changes consistent with a developmental transformation within the economy?

Although agriculture has lost its number one spot in terms of its contribution to GDP, it still remains very important for employment generation as well as generating export earnings for the country. The assertion by earlier writers (see Powell and Round 2000) that agriculture is critical in terms of sustainable growth and development in the Ghanaian economy is still true today. Cocoa remains the main agricultural export of Ghana. Its contribution to the total export was about 24.4 per cent in 2009. This is a decrease from say the 2005 share of about 32.4 per cent (ISSER 2010). This indicates that agriculture’s contribution to exports has declined. However this decline is in no way a reflection of a change in production technologies or increasing value addition to some of these products. Rather it reflects mainly increasing production and export of minerals, timber, and to a very low degree some non-traditional exports such as pineapples, peppers and yams (ISSER 2010). Therefore our answer to the questions posed above is that, yes the changes reflect a changing structure of the economy but these changes are not of the developmentally transformative kind. We have seen some changes in the share of cocoa in total exports but generally. However exports remains dominated by primary commodities. The contribution of high value manufacturing products to exports still remains insignificant.

The NDPC’s (2008), assertion that the absence of structural change compromises sustainable growth and development supports this view and reflects the need to move away from primary production to secondary and tertiary production. McMillan and Rodrik (2011: 1) argue that countries that manage to pull out of poverty and get richer are those that are able to diversify away from agriculture and other traditional products. They find evidence that for Latin America and Africa labour have moved from high to low productivity sectors. They therefore conclude that structural change since the 1990s have been growth-reducing.

We note in Table 5 that the agricultural sector in Ghana has been fetching the lowest hourly payment. However, apart from the financial services sector, it appears hourly earnings of the sectors as a ratio to hourly earnings from the agricultural sector are on the decline. Proxying labour productivity by the ratio of hourly earnings of the sectors relative to agriculture and following the argument of McMillan and Rodrik (2011) we can argue that labour movement from agriculture to the other sectors, except for the financial sector (especially between 1998 and 2006) in Ghana, has not conferred much economy-wide productivity gains to the country.

Table 5: Ratio of average basic hourly earnings of the various sectors to the agricultural sector, by the employed aged 15 years and above

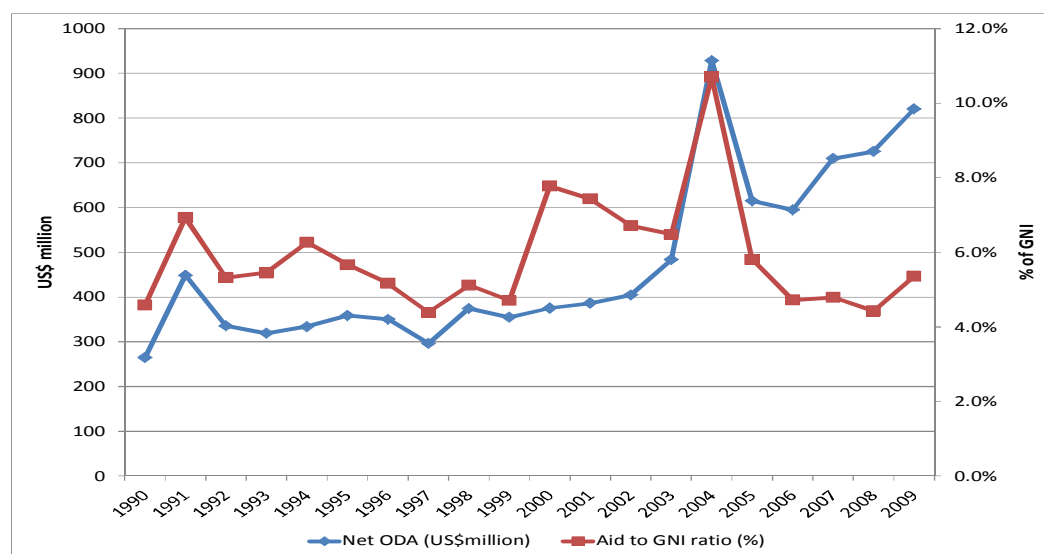
Main industry	1991/92	1998/99	2005/06
Agriculture	1.0	1.0	1.0
Mining/quarrying	2.0	3.0	2.0
Manufacturing	2.0	2.4	1.5
Utilities	1.0	2.2	1.9
Construction	2.0	2.0	1.5
Trading	2.0	2.8	1.4
Transportation/communication	1.0	2.4	1.2
Financial services	3.0	3.0	3.8
Community/social services	5.0	2.0	1.4

Source: Based on data from Ghana Living Standards Surveys (III, IV, V).

#### 4 Foreign aid to Ghana

Foreign aid constitutes an important source of development finance in Ghana. As with many other aid recipient countries, Ghana gets aid in the form of budgetary and project support. In Ghana both the level and proportion of aid (% of GNI) for Ghana has increased from the levels in the early 1990s. Net ODA to Ghana increased from under US\$300 million in 1990 to peak at about US\$928 million in 2004 (Figure 5). It decreased over the 2005-06 period (when Ghana was undergoing the HIPC) but has since increased, and reached about US\$820 million in 2009. The Aid to GNI ratio has followed a similar trend although it is less pronounced. The aid-GNI ratio increased from about 4.6 per cent in 1990 to a peak of about 10.7 per cent in 2004 but fell to about 5.4 per cent in 2009.

Figure 5: Trends in aid dependency for Ghana, 1990-2009



Source: Author's illustration based on OECD-DAC data from <http://www.oecd.org>

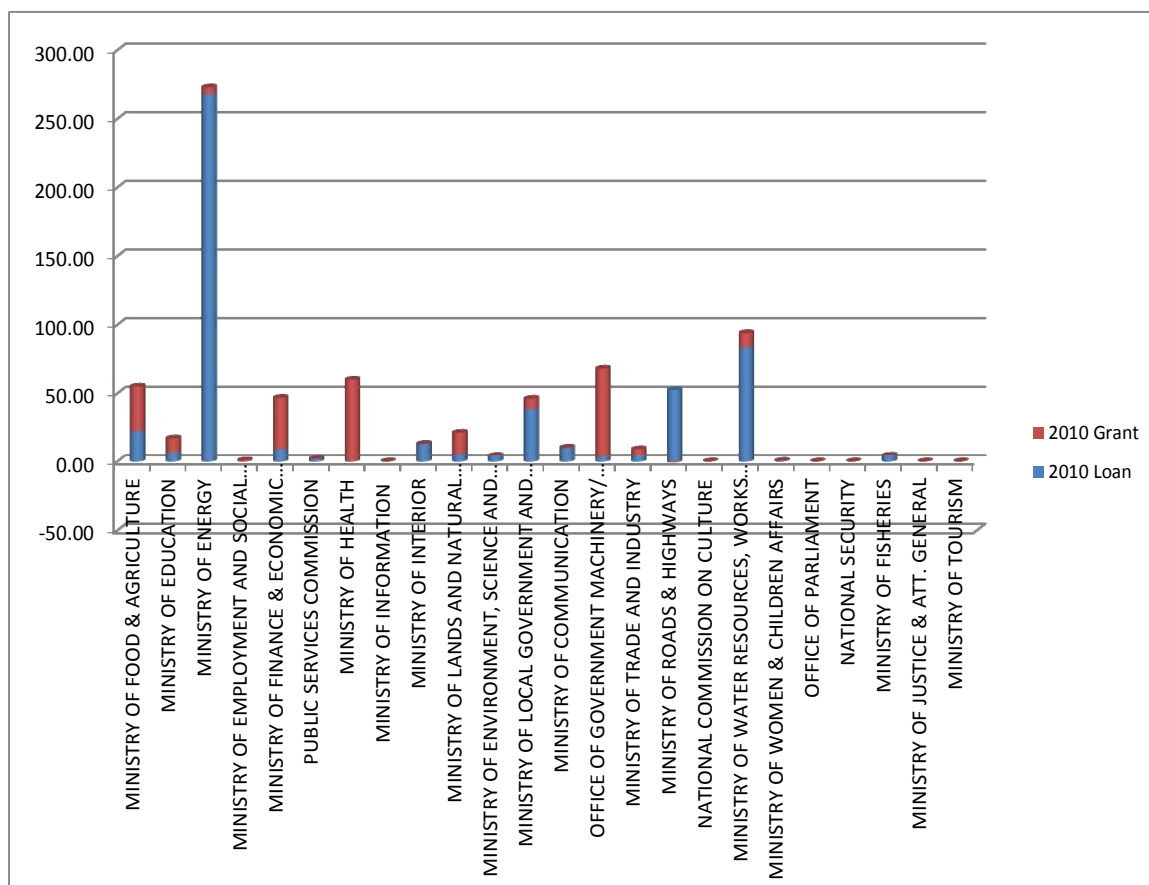
On the sectoral allocations of foreign aid in Ghana, we look at data from MoFEP for 2010. We note that the energy sector seemed to have attracted the most amount of aid in 2010 (Figure 6). This result is driven by loans for the construction of the Bui Dam. Health and particularly education are down the pecking order in terms of foreign aid to Ghana in 2010. However we note that the grants components seem to be very high for the health sector—it is second only to the ministry in charge of government machinery. This pattern is in a sense positive in that the government seems to be taking relatively more loans for sectors that do a lot more infrastructure investment. From a debt sustainability point, this is good in so far as there are reasonable medium- to long-term returns on these infrastructure investments. It also shows that donors still care about social sectors and so are prepared to support the government with grants for these sectors. There are however some caveats that one should make with respect to the observations on the sector allocation of aid to Ghana. First, under the multi-donor budgetary support (MDBS) about a third of external assistance is channelled directly through the consolidated funds. Therefore the true extent of the distribution of the foreign aid depends in part on the sectoral allocation within the overall government budget. Second, the fact that government is taking more loans for infrastructure development does not necessarily mean that investments are being prioritized appropriately. For instance securing loans to invest in the energy sector is consistent with a recent growth diagnostic study which identifies the power sub-sector as a binding constraint to private sector investment in Ghana.<sup>1</sup> On the other hand many have questioned the appropriateness of a recent loan that Ghana is trying to secure from South Korea to build houses for public sector workers—the public sector housing component of that loan is about US\$1.5 billion (about 3 per cent of the GDP for 2010). Therefore securing and using loans for infrastructure development is only part of what is required in terms of maximizing the effectiveness of aid. The prioritization of these aid-financed investment projects is equally important.

The MDBS aid modality was introduced in 2003 by the government of Ghana and its main development partners. This was to help increase aid effectiveness, by aligning development assistance to government fiscal demands and also enhance the predictability of aid to Ghana. To date, the MDBS represents about a third of total external assistance flows and MoFEP reports suggests that disbursements under the MDBS are more predictable. Although not all the donors were in support of the MDBS in the beginning, over time important donors such as Japan and France have come on board. Apart from helping to increase effectiveness and predictability of aid, the MDBS has also helped in improving discipline in public finances. This is because the resource triggers under the MDBS are based on government's own fiscal and development targets agreed with the donor partners, which are in turn based on government's medium-term development plans.

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<sup>1</sup> This is an unpublished study that has been undertaken for the Millennium Challenge Account and the USAID as part of the US Partnership for Growth programme with Ghana. It forms the basis for future US aid to Ghana.

Figure 6: Sectoral breakdown of aid to Ghana (2010)



Source: Author's illustration based on data from Government of Ghana Budget (2011).

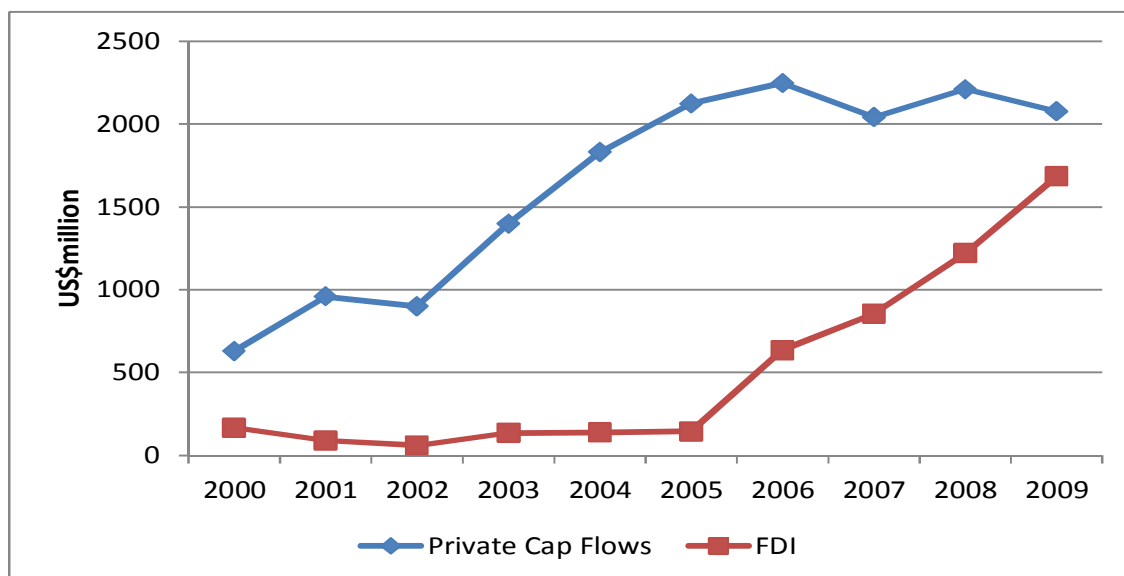
## 5 Private capital flows to Ghana

Total private capital flows which consist of FDI and other private capital has increased since 2000. From the 2000 level of about US\$630 million total private capital peaked at about US\$2.25 billion in 2007 before reducing marginally to reach the 2009 level of about US\$2.08 billion (Figure 7). Undoubtedly (FDI) is increasingly becoming an important component of total private capital flows, particularly since 2006. Before then private inward remittances accounted for the biggest share of private capital flows to Ghana. For the non-FDI component of private capital flows, the improvements in the political climate plus the growth of the world economy may help explain this increase. FDI to Ghana is dominated by the *resource-seeking* type and so the increases observed from about 2006 would have been accounted for largely by the mining sector. Of course the favourable political and economic climate has helped in maintaining the momentum of the FDI inflows into the country (see Barthel et al. 2011).

## 6 Effects of increasing capital flows in Ghana

Given the volume of aid to Ghana as well as the changing modalities of aid we address two issues. The first relates to the growth and development effects of aid to Ghana. The second, has to do with the volatility of aid and its effects on growth and development (or service delivery). We discuss these issues in this section.

Figure 7: Trends in private capital flows (private transfers) to Ghana, 2000-09



Source: Based on data from the World Development Indicators (2010).

## 6.1 Capital flows and growth in Ghana

In Figure 8 we see that there is a strong and positive correlation between growth and capital flows (both private and official). Growth has been particularly strong since 2003 when Ghana has been attracting record inflows of both private capital investment and official transfers. Of course these correlations do not necessarily imply causation, and we do not intend to make this claim. However we can say that the higher economic growth in Ghana have generally associated with increased capital flows.

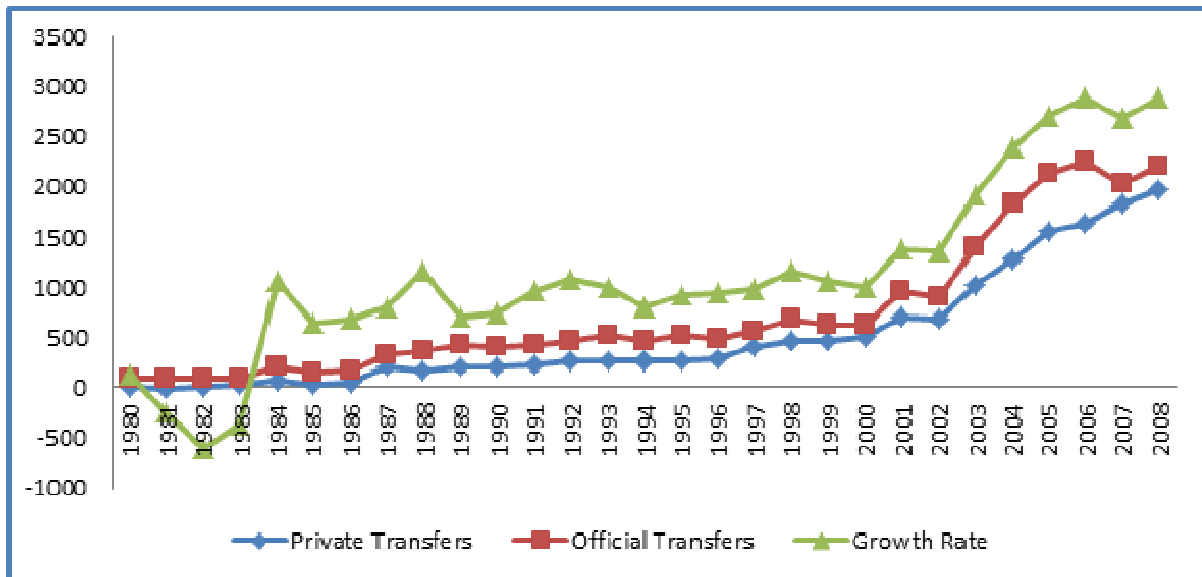
We also note that the Human Development Index (HDI) for Ghana shows improvements since 2000. In particular the 2009 Human Development Report shows that Ghana moved up two places to a rank of 152 in the 2009 HDI and that between 2000 and 2007 the HDI for Ghana rose from 0.495 to 0.526. Comparatively, Ghana's HDI remains higher than the sub-Saharan Africa average.

## 6.2 Capital flows and exchange rate

In Figure 9 we note a negative correlation between the effective exchange rate and private official transfers. Generally an increase in transfers (both private and official) boosts supply of foreign currency, and therefore leads to an appreciation of the currency. These graphs show that aid and other private transfers have helped stabilize the real exchange rates in Ghana. Indeed, it may have led to some minimal levels of appreciation. The real appreciation has had two effects. First, it has helped mitigate the inflationary pressures in the country by keeping domestic price of imports in check. This has been quite important in Ghana given the relatively inelastic demand for imported final goods. The other possible effect of the exchange rate appreciation is that it has hurt the manufacturing sector in Ghana. In other words the exchange rate stability (which has been helped by foreign inflows) has been good for macroeconomic stability but not so much for growth, particularly of the manufacturing sector.



Figure 8: Aid and growth correlations

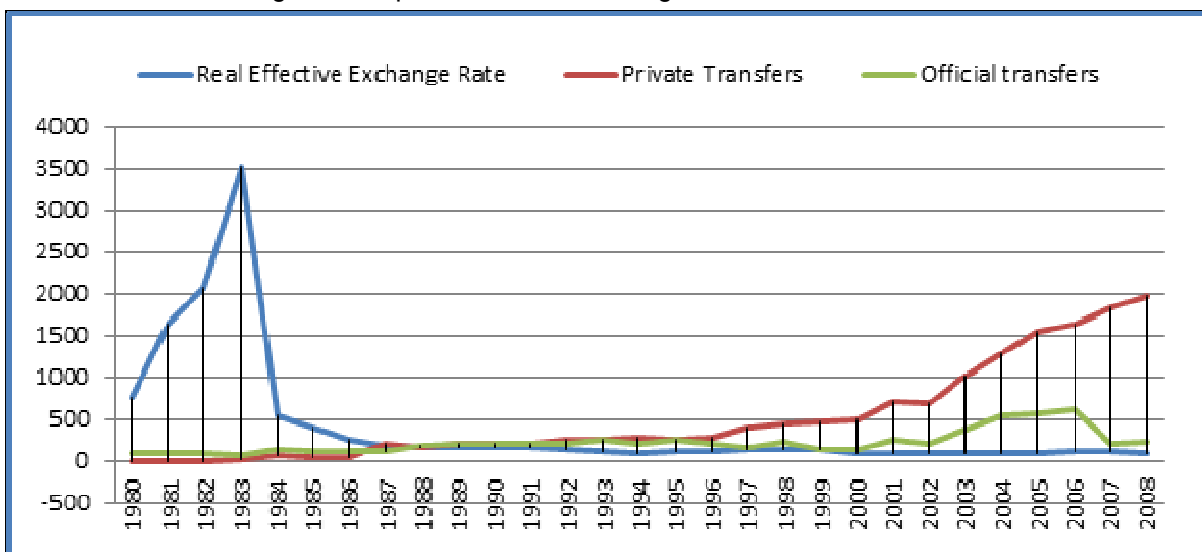


Source: Based on data from the OECD-DAC and World Development Indicators (2010).

### 6.3 Capital flows and government fiscal behaviour

Here we only discuss how official flows (aid) have affected government’s fiscal behaviour in Ghana. This is because unlike private capital flows, aid is largely given to government and this in turn directly affects their fiscal behaviour. Osei et al. (2005) using data spanning the period 1966-98 find that aid to Ghana was mainly associated with reduced domestic borrowing and increased tax effort. In other words aid did influence ‘good economic policy’ in Ghana. This is not surprising as the study period coincides with the period of economic and political reform. We explore further how aid and government fiscal behaviour have played out over the period of high capital inflows and growth. In other words, what is aid doing differently with respect to fiscal behaviour in Ghana today?

Figure 9: Capital flows and exchange rate correlations



Source: Based on data obtained from the Bank of Ghana and the World Development Indicators (2010).

## 6.4 Aid and government expenditure

We note from Figure 10 that over the period 2002-07, whenever aid inflows increased, government's capital expenditure also increased. This however changed in the 2007-09 period when we observe rather the opposite—aid increased whilst capital expenditure declined. This suggests that while capital expenditure was dependent on aid inflows between 2002-07, the same cannot be said in the last two years of the sample. We also note from a close examination of the trends that recurrent expenditures has a lower correlation with aid flows, relative to capital expenditures. This can be explained by the fact that as an expenditure item, capital is almost treated as a 'residual' in Ghana—government sees to salaries and other statutory funds before it tackles the capital expenditure items. As a result aid shocks over the period were usually absorbed by the capital expenditure component.

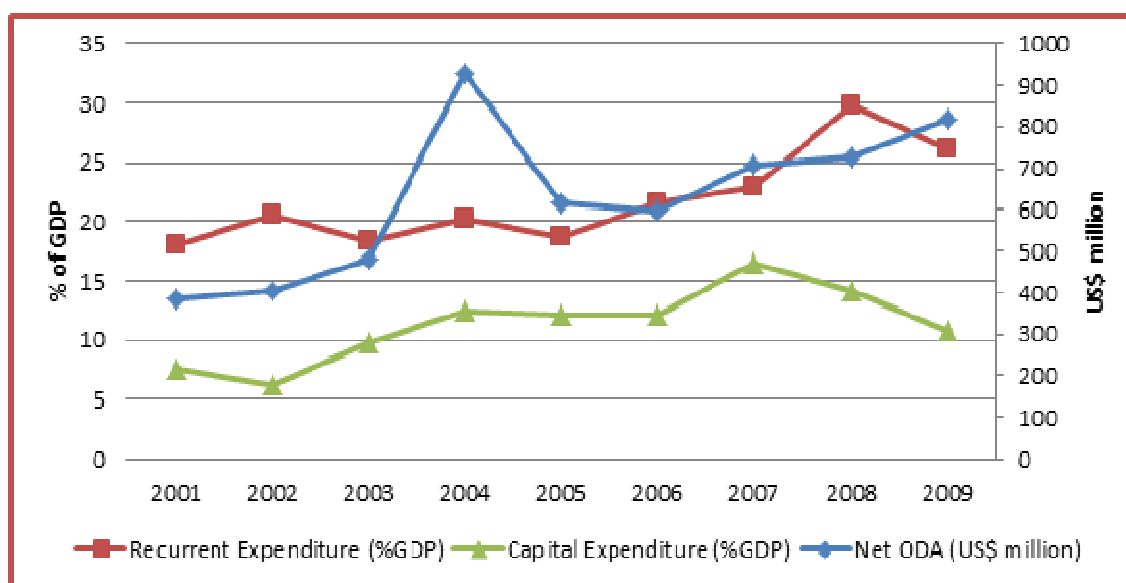
## 7 Is aid predictability a problem for Ghana

### 7.1 Aid predictability

This section assesses the degree of predictability of aid at the aggregate level. We use the concept of 'on-budget' aid predictability. This captures the relative deviation between on-budget aid commitments and disbursement (see Celasun and Walliser 2008).

We note from Figure 11 that on-budget aid to Ghana has generally been unpredictable during 2002-09. However, aid became more reliable from about 2005. The tendency was for actual aid disbursement to be lower than the committed level with the experiences of a shortfall dominating the windfalls—in only two of the eight years in the sample do we observe a windfall in on-budget aid. The degree of unpredictability is seen to be higher for loans than it is for grants. On average the actual grants and loans received respectively fell short of the committed levels by about US\$10.6 million and US\$21.5 million annually. The better predictability of grants compared to loans may in

Figure 10: Aid and government expenditure (recurrent versus capital)



Source: Based on data from various editions of Government of Ghana Budgets and the 2010 World Development Indicators.

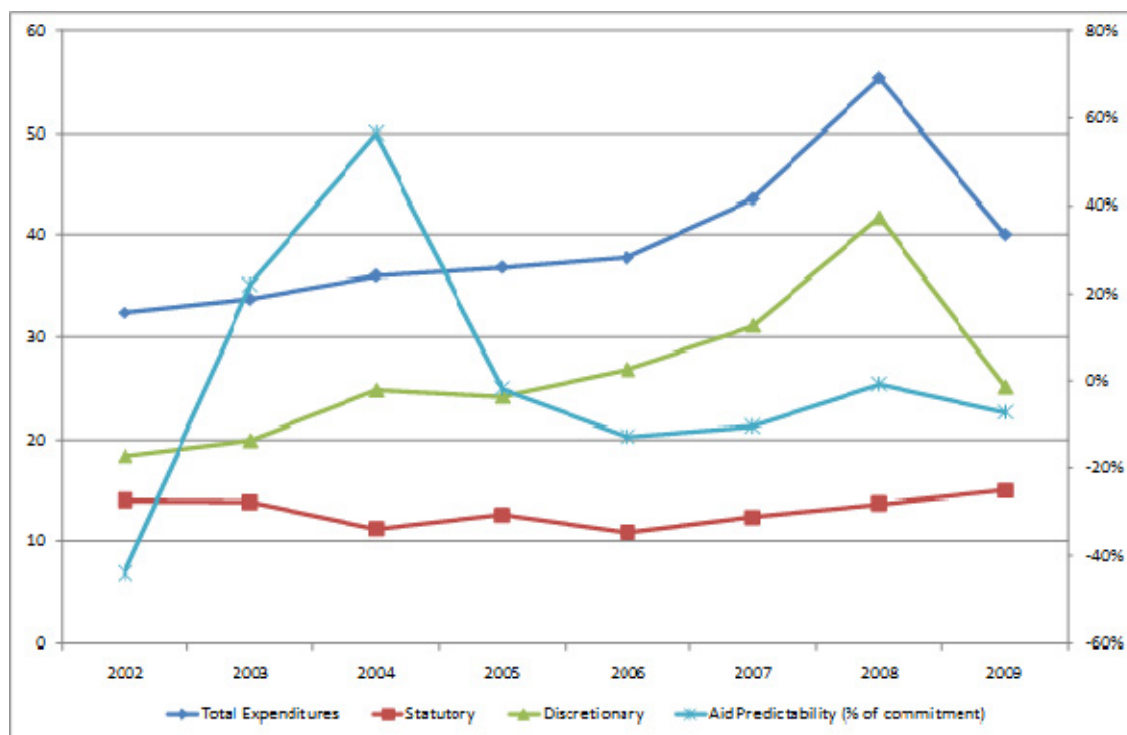
part be a result of the HIPC inflows. This is a grant component and tends to be relatively more predictable in the short-term than other forms of aid. Even though aid has become more reliable, it is still important to understand how it is impacting on the fiscal situation and how government has responded to it.

## 7.2 Government’s response to aid volatility

Figure 11 illustrates the correlation between aid predictability and various types of government expenditures. One observes from this plot that the correlation between short-term on-budget aid predictability and government expenditures appear weak. This suggests that government expenditures have not generally been responsive to aid shortfalls. We also note that there seem to be a weak but positive relationship between predictability in total payments and aid predictability. However when there have been on-budget windfalls, domestic financing have been negative or relatively low as observed for 2003–05 (Figure 12). It needs to be recognized that this period coincides with the period when Ghana joined the HIPC initiative and when its reached completion point. Since 2006 the country has consistently recorded a shortfall in on-budget aid and this has been associated with rising domestic financing of the budget.

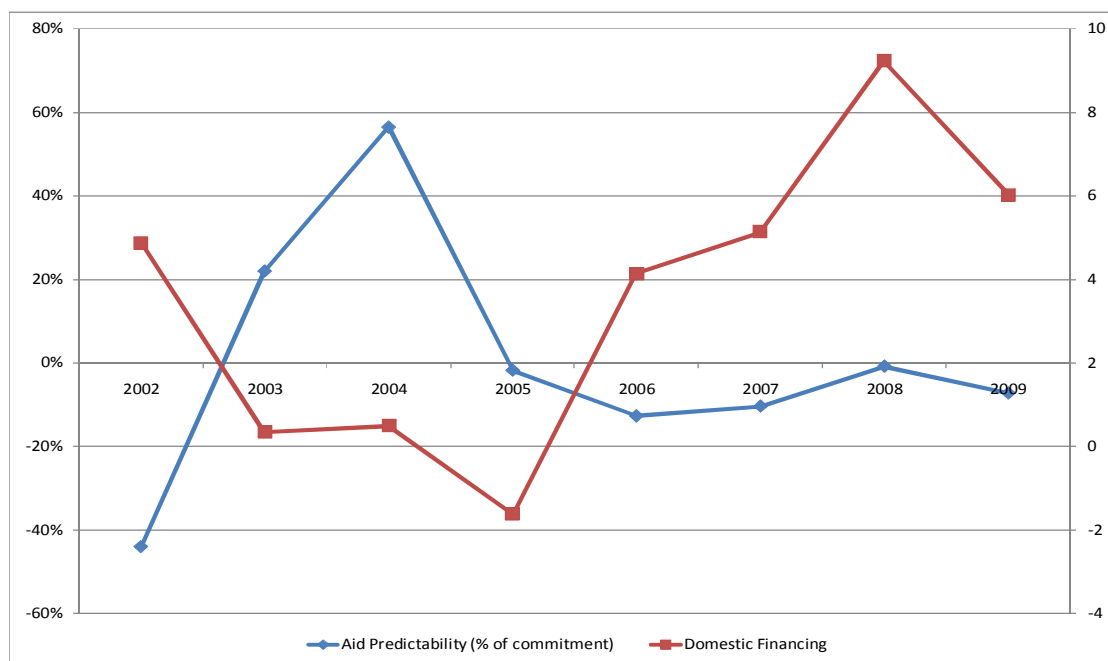
Generally the picture that one gathers from this discussion is one that is consistent with earlier studies on aid and fiscal policy in Ghana—that aid does not significantly affect government expenditures or revenue but rather affects government fiscals through domestic borrowing. In other words when government has experienced aid shortfalls, it finances the gap using domestic borrowing (Osei et al. 2005). However it needs also to be added that one cannot solely attribute trends in domestic borrowing to aid shortfalls. An example is when in 2006 domestic borrowing increased in spite of improvement in the reliability of on-budget aid.

Figure 11: On-budget aid predictability and government expenditures



Source: Author’s calculations based on data from various Government of Ghana budgets.

Figure: 12: On-budget aid predictability versus domestic financing of deficits, 2002-09



Source: Author's calculations based on data from various government of Ghana budgets.

## 8 Does oil provide a way out for Ghana?

### 8.1 A brief background on oil production in Ghana

Ghana has recently found crude oil off the shores of its Western Atlantic Coast. Initial estimates of the Jubilee Field's find put the reserves, as of October 2009, at about 490 million barrels of high-quality oil. The price at which commercial exploitation is viable is US\$30. Since late 2010, production has started and it is expected to span two decades. Production is expected to peak at about 120,000 barrels of oil a day over the 2011-16 period. With the fiscal regime in place and an average world price of about US\$75/barrel, it is estimated that government revenue will be about US\$1 billion annually (Osei and Domfe 2008).

The estimated average annual oil revenue that will accrue to Ghana is not trivial. However compared to other oil rich African countries, Ghana's oil revenue remains small. In fact to put the revenue in better perspective we examine how much fiscal space the oil revenue creates for Ghana. As a proportion of projected tax revenue and fiscal deficits for 2010, the estimated oil revenue will be respectively 23 per cent and 72 per cent. Furthermore, compared to cocoa and gold exports, oil revenues will be no more than 51 per cent and 36 per cent respectively (Table 6). These indicators are emphatic in terms of the fiscal space provided by the oil revenue—even if the country were to use all the oil revenue today, it cannot meet all its fiscal challenges. This is not to suggest that the estimates of the oil revenue stream to Ghana is trivial. Rather it is to highlight the fact that there is limited (or no) scope for inefficient use of the oil revenue.

Table 6: Fiscal implications of the oil revenue to Ghana

	2010 Fiscal estimate (US\$ million)	Oil revenue (% of 2010 fiscal indicator)
Tax revenue	4,337.30	23.06
Total exports	6,124.60	16.33
Overall fiscal deficits	-1,389.30	-71.98
Cocoa exports	1,978.20	50.55
Gold exports	2,799.20	35.72
GDP	18,524.30	5.40

Source: Calculated from GoG Budget 2010 data and World Bank oil revenue estimate of US\$1 billion a year.

The recent rebasing exercise places Ghana in the lower-middle-income category. The oil find and the direct growth dividend from oil revenue will cement this new status. However the country still faces the hard choices that all low-income countries confront as they seek to generate the conditions which promote and sustain growth and development over the long term.

## 8.2 What are some of the likely consequences of oil production in Ghana?

The literature is replete with examples of how oil resource (boom) particularly in Africa has been more of a curse than a blessing. However there is nothing that destines a country to the ‘path of doom’ with natural resources. Therefore, Ghana’s oil find will not on its own, automatically translate into adverse macroeconomic and social outcomes. However it is important for policy purposes that the potential or possible consequences are known so that policy can take cognizance of them. Some of the possible consequences of oil production are as follows:

**Dutch disease:** A significant body of research over the last 20 years has shown that natural resource endowment of many developing countries adversely affected the efficiency with which they have used their capital and consequently, resulted in worse social and economic conditions—a phenomenon known as the ‘resource curse’. Among the factors that have been used to explain the resource curse is ‘Dutch Disease’—where the increased revenue from the mineral resources exported has the effect of raising the price of domestic goods relative to foreign goods (see Auty 2001; Sachs and Warner 1995; Osei and Domfe 2008).

**Fiscal indiscipline:** An important fiscal implication of an oil boom to an economy is that it increases the government’s overall revenue. Unfortunately, this is sometimes accompanied by decreases in the revenue from the non-oil sectors mainly as a result of a fall in output and employment of the lagging sectors. As a result of the increases in revenue from the boom, Government’s incentive to spend may also increase and since expenditure is rigid downwards (particularly in developing countries), any adverse shock will result in fiscal imbalances. Revenue volatility induced by the oil boom can thus increase the country’s vulnerability. For instance it is estimated that if oil prices had been US\$18 (1 standard deviation) lower in 2005, about half of the oil-producing countries would have recorded overall fiscal deficits (IMF 2007).

**Capital flows:** The capital intensive nature of oil production will mean that oil-producing companies will raise and bring into the economy huge financial resources. Oil booms are therefore usually associated with increased capital inflows to the producing country. However, the inflows will mainly go to the oil tradable and non-tradable sectors leaving the non-oil tradable sector. This may result in a shrinking of the manufacturing and the agricultural sectors. According to Barthel et al. (2011) a significant proportion of the unprecedented level of inflows to Africa in 2007 went directly into the natural resource-based sectors. Coupled with this is the fact that aid flows are likely to be displaced in the medium to long term. The net effect of these resource shifts will depend on whether private capital will come to finance the previously aid-financed expenditures.

**Internal migration:** Although Ghana's oil production is off-shore, there is already significant activity around the south western part (Takoradi-Axim area) of the country which is closest to the oil wells. With the high inequality and unemployment situation in the country, there is no doubt that the prospects of jobs will attract migrants to this area. An obvious effect will be to increase the pressure on social amenities in this part of the country. A more serious problem though is that human resources will be lost to other sectors—the most probably being the agriculture sector. In the absence of a growing manufacturing and/or high productivity service sector this will pose a significant development challenge for the economy.

## 9 Conclusions

This study had a simple aim: to present an analysis of the aid-private capital flows-growth nexus particularly in view of the fact that Ghana has now started production of oil, with all the potential resource curse pitfalls staring it in the face. Our main findings are summarized as follows.

Generally both aid and private capital flows (including FDI) have increased over the years. These increases have been associated with increases in growth and human development in Ghana. Also the country has recorded quite remarkable decreases in the incidence of poverty. However inequality and underemployment remain and have worsened.

We have also argued that the structure of the Ghanaian economy has changed over the years. Unfortunately the type of change that we have observed is not of the developmentally transformative type. Additionally oil production has started at a time when the country has attained a lower-middle-income status. This in all likelihood will mean a decrease in foreign aid in the medium to long term. So at best oil production may only replace foreign aid in the long term. However, in the short term when Ghana has the complement of aid and oil revenue, it needs to take advantage of the situation. It is therefore essential that aid is used in a creative way to help channel resources to the agricultural and manufacturing sectors to help increase productivity. This is very important for at least two reasons. First, when aid is applied to modernize the agricultural sector, labour will become more productive and the sector will be properly positioned to produce more to feed the manufacturing sector. Second, a rejuvenated manufacturing sector will increase demand for agricultural goods, thereby solving the perennial problem of marketing agricultural products.

We conclude by making two suggestions about how aid can be used to help transform the economy. First, there is a strong case to be made in the use of aid to help solve the structural deficiency in government fiscals (see UNDP 2011). Here we would suggest that aid can be used both directly and/or indirectly (by influencing policy) towards resolving the perennial deficits which really constrains policy. For instance, arrears which have become a feature of the government's budget in Ghana make planning very difficult as there is very little fiscal space for any meaningful programmes to be undertaken. This in turn compounds the fiscal and consequently macro stability problems in election years. Second, there is the need for aid to be based on a proper growth diagnostics. In fact the growth diagnostics can be undertaken for different sectors of the economy. In that way aid and other resources (including that from oil) can be better used to steer private investments towards well defined sectors within the economy. As noted by McMillan and Rodrik (2011), structural change is not an automatic process and therefore needs to be steered in the appropriate direction. A strategic use of aid can therefore help nudge the country in a direction that will help mitigate potential resource curse problems which confront it.

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