Policy brief

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IGC
International Growth Centre

Managing the Macroeconomy in an Oil Rich Country

The Case of Ghana

In brief

- The discovery of oil and gas off the Ghanaian coast has led to new optimism in Ghana.
- Although many expect oil production to improve fiscal space, there is concern over whether it will lead to dependence on resource rents.
- An appreciation of the real exchange rate due to the discovery of natural resources can lead to export sectors becoming uncompetitive. A further problem for fiscal policy lies in the volatility in revenue from oil exports due to oil price fluctuation.
- Our research shows that in addition to oil production generating GDP growth, oil revenues will support expenditure and reduce reliance on borrowing or foreign aid.
- If oil revenues are used in a similar way to foreign aid or tax, they will favour capital spending, helping to improve productivity. If oil revenues result in a decline in domestic borrowing, this should lead to an improved macroeconomic environment such as lower interest rates and lower inflation.
- The fiscal and macroeconomic benefits are not guaranteed in the presence of oil revenues. We make two key recommendations on how the country can maximise the macroeconomic benefits of oil revenues for Ghana.
    - There is a need to explictly define structures to monitor and manage the use of oil revenues.
    - Government spending efficiency should be held to very high standards. Reducing leakages in government spending and better prioritisation of government spending within a long term growth and development plan should be key priorities.

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Introduction

Ghana, as with many other developing economies, faces the challenge of achieving the objective of rapid growth and development on a sustainable basis with limited fiscal space. Unsurprisingly therefore, the discovery of oil and gas off the coast of Ghana in June 2008 in commercial quantities has given rise to new optimism for the country. This optimism is born out of the fact that the start of oil production is expected to improve the fiscal space. However, there have been public concerns about possible negative consequences, which could reduce competitiveness in key export and import-competing sectors and adversely impact the livelihoods of major parts of the population. Both economic theory and available evidence suggest that natural resources provide opportunities for income growth, but continued dependence on resource rents presents serious concerns. History and the experiences from resourcerich countries in Africa are not encouraging. Many resource-rich countries have ended up with disappointing growth performance during the periods of natural resource boom, a phenomenon referred to in the literature as “the resource curse”.

“Discovery of oil and gas off the coast of Ghana has given rise to new optimism for the country”

The discovery of natural resources has tended to be associated with appreciation of the real exchange rate, leading to what is often referred to as “Dutch Disease”. The real appreciation arises because growth in the value of natural resource exports increases the supply of foreign exchange and creates pressure for a nominal appreciation, while resources are attracted into the booming sector, increasing costs and reducing profits for other sectors. Usually, the manufacturing and agricultural export sectors, such as cocoa in the Ghanaian case, suffer most as they become uncompetitive. Furthermore, oil prices tend to be very volatile by nature and the related volatility in revenue from exports creates macroeconomic instability and problems for fiscal policy. In addition to the challenges to macroeconomic management is a challenge to governance as increased availability of natural resource rents encourages corruption and deterioration in the quality of institutions.

Since the start of oil production, oil revenues have become a significant part of Ghana’s public finances. At the upper end of estimates, Ghana’s oil reserves can have significant impact on the performance of the economy. van der Ploeg (2011) estimates that at its peak production from the Jubilee field could generate up to 30 per cent of the government’s annual income, if oil is at $75/barrel. The first lifting of oil by GNPC on behalf of the state was in March 2011 and a total of 995,259 barrels was lifted. Throughout 2011, a total of four different lifting was undertaken which make up 3,930,189 barrels. In 2012, five liftings by GNPC were again done with an average of 986,207 barrels and all together provided a total of 4,931,034 barrels. In 2011, total receipts from crude oil amounted to US$444.12 million, representing approximately 6 percent of total revenue. In 2012, government received an amount of US$541.07 million as revenue from crude oil with a projected petroleum receipts of US$581.72 million for the fiscal year 2013. The major part of petroleum income is income tax. The additional oil entitlement and GNPC commercial profits are also considerable. The third and smallest component is royalties. In accordance with Section 48 (Act 815) of the Petroleum Revenue Management Act (PRMA), 2011, the receipts from crude oil are to be made known to the general public through

"Oil revenues have become a significant part of Ghana's public finances"

publication of receipts[1]. This is to help reduce fudiciary risks asscoiated with the use of oil revenues. As rightly noted by van der Ploeg (2011), Ghana's PRMA appears weighted too heavily towards short-term spending.

Since Ghana has only been producing oil for two years the experience with foreign aid and tax revenue in a fiscal framework is taken to illustrate the way in which oil revenues will be used.

The research uses time series data to assess the relationship between fiscal variables including foreign aid, estimate the parameters of the fiscal relationship and simulate impacts of oil revenue on government fiscal variables and economic growth. It notes that the effects of oil revenue differ from aid because donors monitor and exert some pressure over how aid is used. In other words, donors through the aid relationship, have some influence on economic policy, especially macroeconomic management. The research suggests that both aid and tax revenue have, in fiscal terms, been used in similar ways to support government spending, especially investment, and reduce domestic borrowing. It therefore argues that it is reasonable to expect oil revenue to be used in a similarly beneficial way.

Results

Increased Output

Oil production obviously generates output and GDP growth, and also generates revenues for the government. If the revenues are used properly they will contribute to future growth in the same way as aid and tax revenue increased investment spending. This is reflected in the performance of the economy in 2011. For instance, output growth in the mining and quarrying sector in 2011 (when oil production started) was over 206 per cent, compared with about 19 per cent in the previous year. The big challenge here relates to whether government spending and behaviour generally can induce stronger linkages between the oil sector and the other sectors of the economy. Should that happen, then one could argue that the output effects can support the development transformation of the basic structure of the Ghanaian economy.

"Oil revenues will support expenditure and reduce the need to rely on borrowing or foreign aid"

Improved Fiscal Outcomes

Oil revenues will support expenditure and reduce the need to rely on borrowing or foreign aid. If oil revenues are used in a similar way to foreign aid or tax they will favour capital spending over recurrent spending. This could additionally help improve overall productivity within the economy.

Stabilised Macroeconomic Environment/Improve in Outcomes of other Macroeconomic Variables

If oil revenues result in a decline in domestic borrowing, this should lead to an improved macroeconomic environment, such as lower interest rates and inflation. The most important requirement is to ensure that borrowing is not increased. This

1. The PRMA outlines how government's portion of the oil receipts is to be used. The revenues are to be allocated between the annual budget and sovereign wealth funds as the income is received.

requires effort on the part of government as initially one anticipates pressure to use the oil revenues to increase spending, and as expectations are high it is quite likely that this pressure will be strong. It is important to create realistic expectations regarding the value of oil revenue and the level of spending it could support. Spending the revenue could be a good use as long as the expenditures are productive and the temptation to borrow on the basis of future revenues is resisted.

"It is important that the efficiency of spending by the government is held to very high standards"

Ghana has exhibited reasonably good fiscal and budgetary management since the 1980s. In the case of foreign aid this can in part be attributed to conditionality and the efforts of donors and government to monitor the use of aid. As tax revenues are transfers from households the tax payers can demand increased accountability from the public sector. The question is whether similar incentives can be attached to oil revenues to engender the kind of government behaviour that will ensure benefits are realised. This requires mechanisms for transparency and accountability.

The fiscal and macroeconomic benefits are not guaranteed in the presence of oil revenues. We therefore conclude by making two key recommendations on how the country can maximise the macroeconomic benefits of oil revenues for Ghana. First, there is the need to explicitly define structures to monitor and manage the use of oil revenues. The Ghana Extractive Industries Transparency Initiative (GEITI) plus the oil revenue management bill are all attempts to create some form of transparency and conditionalities with respect to how the oil revenues will be spent. Unfortunately, it does not go far enough and has a short term bias for spending. It is therefore important that government expenditures are better prioritised and skewed towards physical capital investment. Secondly, it is important that the efficiency of spending by the government is held to very high standards. This should take two forms. There is the need to reduce leakages in government spending so that the output of every Cedi spent is maximised. In addition, there should be better prioritisation of what government spends each Cedi on within a holistic long term growth and development plan. In this way, Ghana can maximise the benefits from the oil revenues.

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