

Foreign Private Investment, Capital Formation and Economic Growth in Nigeria: a two stage least square approach

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Abstract

Given the likely simultaneity between FPI, Capital Formation and Growth, this work studies the relationship between foreign private investment, capital formation and economic growth in Nigeria using the two-stage least squares (2SLS) method of estimation. The study finds that the long run impact of capital formation and foreign private investment on economic growth is larger than their short-run impact. There is thus, a long-run equilibrium relationship among the variables as the error correction term is significant, but the speed of adjustment is small in both models. The two stage least squares estimates are very close to the OLS estimates suggesting that OLS estimates are consistent and unbiased. Hence, endogeneity was not a problem in the estimated models. There is therefore no simultaneity between GDP growth and capital formation model. These findings therefore have some policy implications as discussed in the work.

Key Words: Capital Formation; Foreign Private Investment; Investment; Economic Growth; Credit

1. Introduction

Economic theory shows that economic growth can be realized in two ways- increase in the amount of factors of production; and increase in the efficiency with which those factors are used. Thus, growth is induced by the increases in investment (ie capital accumulation) and the efficiency of investments (De-Gregorio, 1998). In the late 1970s and early 1980s, most developing countries of Africa (including Nigeria) experienced unprecedented and severe economic crisis. These crises manifested in several ways such as persistent macro-economic imbalances, widening savings-investment gap, high rates of domestic inflation, chronic balance of payment problems and huge budget deficit (Akpokodje, 1998).

Although different reasons have been adduced for the slowdown of these economies, Green and Villannueza (1998) attributed the problem to the decline in investment rates in the affected economies. In Nigeria, for example Akpokodje (1998), maintained that domestic investment as a ratio of gross domestic product (GDP) declined from an average of 24.4% during 1973-1981 period to 13.57% during 1982-1996 period. The average investment rate during the 1982-1996 period implied that the country barely replaced its dwindling capital. In the same vein, private investment rate depreciated from 8.6% in 1973-1981 period to 4.2% in 1982- 1996. Due to the fact that investment determines the rate of accumulation of physical capital (otherwise called capital formation), it then becomes a vital factor in the growth of productive capacity of the nation and contributes to growth generally.

It is in the light of this that prominence is being attached to increasing the magnitude of real asset investment in the economy. In particular, central to the less than satisfactory growth registered by countries of sub-Saharan Africa is low level of investment as a result of low domestic savings. Attracting foreign investment is therefore crucial from a number of standpoints and of course, there is never shortage of theoretical arguments (Chete, 1998). First, inflow of foreign investment provides an important source of foreign exchange earnings needed to supplement domestic savings and raise investment levels. Second, import substituting investment would serve to reduce the import bills as investment in export industries will directly increase the country's foreign exchange earnings.

Some other benefits might also accrue from increased foreign investment. These include the creation or rather expansion of local industries to supply inputs to the newly established plant; a rise in the overall level of domestic demand to boost incomes and through taxation, state revenues; and the transference of labour (human capital), skills and technology. Although United Nations Conference on Trade and Development (UNCTAD)'s World Investment Report 2004 reported that Africa's outlook for Foreign Private Investment (FPI) is promising, the expected surge is yet to manifest. FPI is still concentrated in only a few countries for many reasons, ranging from negative image of the region, to poor infrastructure, corruption and foreign exchange shortages, an unfriendly macroeconomic policy environment, among others.

Nigeria is one of the few countries that have benefited from the FPI inflow to Africa. Nigeria's share of FPI inflow to Africa averaged around 10%, from 24.19% in 1990 to a low level of 5.88% in 2001 up to 11.65% in 2002 (CBN, 2004). UNCTAD (2004) showed Nigeria as the continent's second top FPI recipient after Angola in 2001 and 2002. The nominal FPI inflow ranged from N128.6 million in 1970 to N434.1 million in 1985 and N115.952 billion in 2000. This was an increase in real terms from the decline of the 1980s. FPI forms a small percentage of the nation's gross domestic product (GDP), however, making up 2.47% in 1970, -0.81% in 1980, 6.24% in 1989 and 3.93% in 2002. (CBN, 2006).

External capital inflows could also be non-debts-creating flows (as in official transfers of grant in aids and direct investment flows), debt creating flows (as in official development finance), commercial bank loans and international bank offerings, or could equally be a hybrid, for example, foreign portfolio investments and international equity offerings. Of late, Nigeria has embarked upon several trade liberalization policies so as to free FPI flows into the country (Adegbite and Owuallah, 2007). Many developing countries have over the years relied very much on the inflow of financial resources from outside in various forms, official and private capital flows as well as direct foreign investment, as a means of speeding up their economic development (Olaniyi, 1988; Odozi, 1995; Orji, 1995; Ekpo, 1997; Uremadu, 2006). However, these countries have shown preference for direct foreign investment because they regard direct foreign investment as a means of counteracting the sluggish trend in official and private portfolio capital flows.

In the light of the above discussion, it is obvious that the debate on the impact of FPI on economic growth is far from being conclusive. The role of FPI can be positive, negative or insignificant, depending on the economic, institutional and technological conditions in the recipient countries. Also, for our country Nigeria, there is no concord on the impact of foreign private investment on capital formation and the impact of the duo on our domestic economic growth. Following the problems highlighted above and the research questions that follow, this paper therefore seeks to investigate the impact of foreign private investment (FPI) on capital formation in Nigeria and to determine the impact of capital formation and foreign private investment on economic growth in Nigeria. The study will cover the period from 1970-2007.

It is pertinent to note that the impact of FPI on capital formation and economic growth is more contentious in empirical than theoretical studies, hence the need to examine the relationship between FPI, capital formation and growth in different economic dispensations in Nigeria. There is the further problem of endogeneity, which has not been consciously tackled in previous studies in Nigeria. FPI may have a positive impact on capital formation and economic growth leading to an enlarged market size, which in turn attracts further FPI. This study will make conscious effort to address the endogeneity issue.

2. Literature Review

The Harrod –Domar model, developed independently by Harrod, R and Domar E. during the 1940s, which explained the relationship between growth and employment in advanced capitalist countries, has been used extensively in developing countries as a simple way of looking at the relationship between growth and capital requirements. The assumption of the model is that the output of any economic unit, whether a firm, an industry or the whole economy, depends upon the amount of capital investment in that unit. Thus, if we call output Y and capital stock K , then output can be related to capital stock by $Y = kK$ where k is a constant, called the capital-output ratio. The basic Harrod –Domar relationship for an economy is $g = k$ where g , is the view that capital created by investment in plant and equipment is the main determinant of growth and that, it is savings by people and corporations that makes the investment possible (MacIolm, et al., 1987).