The Role of the State in Promoting Regional Integration and Private Sector Development

by

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Abstract

The private sector remains an essential component of an economy’s development process, with positive impact on development challenges such as job creation and inclusive growth. This paper addresses the role of the state in promoting private investment targeted to pro-poor growth and poverty reduction in West Africa. Using fixed effects and panel system Generalized Methods of Moments regression techniques, the empirical findings support the complementary role of the state in promoting sound and investor friendly regulatory policies and improving access to finance, especially for small and medium enterprises. Besides the necessity for a stable macroeconomic environment, the results underscore the need to embrace regional integration as a channel for accelerating intra-African trade, infrastructure investment and a platform for addressing regional social-economic challenges. Finally, the paper argues that visionary leadership and political willingness are a necessity if regional integration is to promote sustained growth and development trajectory in West Africa.

Keywords: Private Sector, Regional Integration, Intra-African Trade
JEL Classification: 011, 023, 038

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Introduction

A thriving private sector has been regarded as a driver and an engine of growth due to its potential role in addressing development challenges faced by most African economies. Domestic investment, especially by the private sector, is deemed vital in sustaining economic growth, generating employment opportunities and laying the foundation for poverty alleviation (UNCTAD, 2013). However, the extent to which the private sector positively contributes to sustained and broad based social-economic growth and development greatly hinges on the ability of the state to create a friendly investment climate through the execution of sound and timely policy interventions.

Several prepositions have been advanced to highlight the key role played by the private sector in spurring economic growth and development. First, the private sector can accelerate knowledge transfer which is essential in increasing productivity and hence competitiveness in a country’s production (Nyangongo and Misati, 2011). Second, besides promoting an efficient allocation of market resources, the private sector can provide income by generating job opportunities, contributing positively to poverty reduction (UNECA et al, 2013). In addition, by creating employment opportunities in rural areas, the private sector contributes to inclusive growth by improving the living standards of the rural population (UNIDO and UNCTAD, 2011). Fourth, through efficient public private partnerships, the private sector is a crucial element in the provision and delivery of essential services such as infrastructure, health, telecommunication and energy (UNECA and AUC, 2011). Finally, besides positively contributing to tax revenues for financing government operations, private sector investment has implications in addressing issues such as food security and environmental sustainability (IFC, 2011).

However, in most African countries, several challenges constraint the delivery of these economic benefits, necessitating the intervention of the state in addressing market inefficiencies and providing an enabling environment which supports entrepreneurial ventures. These binding constrains are associated with the quality of institutions and policies, macroeconomic and political environment, market size, infrastructural deficits and inadequate public policies targeted to support the private sector. As a consequence, it has been argued that concerted efforts to promote regional integration can alleviate these constraints and promote economic growth and development as well as increase the living standards of the people.

The objective of this paper is to identify the macroeconomic and institutional factors that affect private investment in West Africa. The empirical approach is based on System Generalized Methods of Moments (S-GMM) techniques which address econometric issues such as endogeneity and reverse causality of variables. Using cross country panel regressions, the empirical results underpin the crucial role of the state in fostering the development of the private sector through the provision of an investor friendly atmosphere as well as ensuring macroeconomic stability and addressing infrastructural deficits. In addition, promoting regional
integration and boosting intra-African trade is essential if African countries are to address current social economic challenges such as unemployment and poverty.

The rest of the paper is organized as follows. The next section reviews both the theoretical and empirical literature regarding the factors influencing private investment while section 3 discusses data issues and the econometric methodology used in the empirical estimation. The results of the model are presented and discussed in section 4 while the last section concludes with policy implications.

2. Theoretical and Empirical Literature Review

Although there is a consensus on the potential of the private sector in spurring economic development through job creation and poverty reduction, it is often difficult to establish the government interventions which are required to promote a business friendly environment which attracts private investment. In this regards, two theoretical approaches regarding the promotion of a business-enabling environment have been proposed. These are the neo-classical approach and the neo-structuralist perspective.

According to the neo-classical paradigm of establishing a sound business environment, markets systems are considered perfect under the assumption of strong property rights and free competition. Under this setting, competition ensures that only efficient and productive firms dominate, with weak firms been driven out of the market. As a result, any government intervention is deemed sub-optimal and inefficient; hindering the development of the private sector as any state intervention creates an opportunity for rent seeking and corruption. According to this view, creating an enabling environment conducive for the private sector requires the improvement of the regulatory environment by reducing both direct and indirect costs of doing business as well as ensuring adequate provision of quality infrastructure, human capital, legal framework, financial markets and trade openness.

By contrast, the second approach, based on the neo-structuralist perspective, posits the existence of market failures and argues in favor of the role of the state in addressing this binding constraint to private sector development. In addition, this approach acknowledges the existence of asymmetric markets as well as firms with different levels of productivity and technology capabilities co-existing in the same markets. Under this view, government intervention becomes necessary in protecting domestic firms from international competition in order to limit loss in competitiveness. This however requires the presence of sound institutions which monitor any state interventions in order to limit the risk of policy failure.

In the context of African countries, the neo-structuralist theory is justified by four main reasons. First, given the huge sunk costs and deferred benefits associated with research, development and technology, the existence of positive externalities to competitive firms may induce underinvestment. Second, due to coordinating failures, private investment may be hindered due
to the absence of other complementary firms in the domestic markets. Third, the costly nature associated with obtaining information regarding market opportunities, especially for small and medium enterprises operating in the non-traditional sectors of the economy, may lead to lower levels of private capital accumulation. Finally, the huge productivity and technological gap between domestic and foreign firms may result in unfair competition and undermine domestic investment.

Given these issues, it emerges that policy mix are necessary in addressing market failures which inhibit private sector development. In this regards, the state emerges as a fundamental player in supporting the private sector. The literature has identified certain key areas which require government intervention in order to boost the development of the private sector. These areas appertain to market size, business registration processes, infrastructure and human capital, foreign direct investment, good governance and sound policies as well as trade and financial development.

The literature has identified the size of the market as an important determinant of private investment. Theoretically, a large market size is associated with increased demand for goods and services, and thus can accelerate private investment by promoting production and gains emanating from economies of scale. Therefore, it has been argued that access to markets, both within and across countries, can stimulate the development of the private sector by providing end markets for produced goods and services. Given the low penetration of African countries to international markets, coupled with stiff external competition, boosting intra-African trade as well accelerating regional integration initiatives through the easement in procedure related to cross border movement of people, goods and services can result to increased trade, and via a multiplier effect, economic growth (UNCTAD, 2013).

The level of economic growth and development has also been found to be a major factor influencing the allocation of private investments. According to the accelerator theory, the level of investment depends on the level of economic activity and output. Thus, as a country’s economic growth improves, the associated increase in demand and consumers’ purchasing power in the domestic market attracts the inflow of private investment (Uneze, 2012).

It has also been argued that state policies which promote market seeking Foreign Direct Investment (FDI) are beneficial to the private sector. FDI, besides increasing the amount of capital stock in an economy, has been associated with technology transfer, integration of economies into global trade, better human capital and managerial skills, as well as increased competitive business environment. Empirical evidence show that in the presence of sound policies, FDI can have a positive spillover on the private sector and lead to increased productivity, growth and efficiency of domestic firms operating in other sectors of the economy (Ndikumana and Verick, 2008). In addition, FDI promotes the growth of complementary firms in the economy, and thus remains crucial in strengthening forward and backward linkages between
firms. Firms operating high in the value chain can enhance the growth of small and medium sized firms, especially those in rural area with low skilled workers, and thus result to inclusive growth and improved productivity (UNECA and AUC, 2013).

The role of the state has also been advocated in the provision of infrastructure, especially transport systems, information and technology as well as energy requirement in order to boost and sustain entrepreneurial activities. When an economy is marked with infrastructural deficits, the cost of doing business increases, and this in turn reduces the participation of the private sector. Thus, public investment in the provision of transport infrastructure can boost trade by facilitating the mobility of factors of production and thus improve productivity, reduce transaction costs and hence enhance competitiveness. In addition, increased investment in communication infrastructure can facilitate the flow of information regarding market opportunities and attract more investment (Sackey, 2007).

Supplementing public investment, human capital is considered as a pre-condition for boosting productivity, innovation, research and development (Kulundu et al, 2012). As the level of human capital increases, technology absorption becomes efficient, enhancing the use of low cost production techniques and thus increasing the quality and quantity of output. Related to this is the need to enhance the productivity of the workforce and promote employee retention by improving health systems.

Besides the need for building physical and human capital, opening up domestic markets can accelerate knowledge transfer, upgrade workers skills and expand end markets for produced goods and services. By facilitating both regional and international trade through trade liberalization measures, the private sector can benefit from increasing returns to scale. In addition, most economies tend to be characterized by labor intensive activities due to the overabundance of labor, thus facilitating trade in labor intensive activities can act as a source of employment opportunity and income. Recent empirical studies such as those of Salinas and Aksoy (2006) find that trade liberalization is associated with an increase in GDP per capita of between 1.2 and 2.6 percent in developing countries.

Macroeconomic stability also has a profound effect on the private sector, as a stable social-economic and political environment promotes price stability. Uncertainty arising from an unstable economic atmosphere may distort the allocation of investment projects, as investors would prefer short term projects rather than those which are long term, structural and irreversible (Aysan, 2006). Therefore fiscal, monetary and exchange rate policies play an important role in ensuring low real interest and inflation rates. Similarly, exchange rate policies are crucial in promoting exporting competitiveness and promoting the importation of capital goods for intermediate production (Ayentimi et al, 2012).
Credit availability for private investment, especially for small and medium enterprises (SME) in African countries, remains a major constraint which necessitates the intervention of the state. The low amount of financial credit normally arises due to inefficient and weak financial systems characterized by risk averse and shallow financial institutions, excessive collateral requirements which are prohibitive to SMEs, high transaction costs due to the small nature of most local firms and the lack of credit bureaus to assess borrower’s credit worthiness. Therefore, the state has a key role to play in eliminating these financial barriers and easing access to credit by developing financial markets which mobilize and efficiently allocate resources to firms for productive investment (Uda, 2010; Luca and Spatafore, 2012).

Another key factor influencing private sector development is the quality of institutions, policies and leadership. Institutional barriers to firms’ entry, as well as procedures associated with the acquirement of business permits have been found to be a key deterrent to private investment as they increase transaction costs and time and rent seeking opportunities (UNIDO and UNCTAD, 2011). In addition, efficient government institutions which promote a friendly business environment by easing the process of doing business, enforcement of contracts, transparency and accountability, strong rule of law and legal frameworks, efficient regulatory oversight and efficient tax policies are associated with high participation of the private sector. Thus, good governance is instrumental in reducing market and political risks and ultimately attracting private investment (Salahuddin et al, 2009; Ajide, 2013).

Finally, the state also exhibits a role in promoting transparent dialogue with the private sector in order to build complementarity and provide a supportive investment climate through the design of appropriate policies. According to Sen and Dirk Te Velde (2009), constant engagement between the state and the private sector is highly associated with higher governance and ultimately higher economic growth. In the same vein, state-business relations have been associated with the formalization of the informal sector as well as a greater allocation of government resources to private sector development (Orwa, 2007).

3. Data and Model Specification

The data used in the estimation consists of an annual panel of 14 West African countries for the period 1985 to 2011. All the data is obtained from the African Development Indicator database of the World Bank. The econometric analysis relies on panel data which contains three key features crucial in the identification process. First, by combining both the cross section and time series dimension of the data, the increased number of observations increases the precision of the estimates. Second, panel data consistently estimates fixed effects models which take into account unobserved country heterogeneity. Third, panel data permits the uncovering of the dynamics of

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1 The countries included in the sample are: Benin, Burkina Faso, Cape Verde, Cote d’Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Mali, Mauritania, Niger, Nigeria, Senegal and Togo.
how countries with different investment levels are subject to different evolution patterns over time.

The baseline dynamic model specified to analyze the factors affecting private investment in West Africa is assumed to take the form:

$$y_{it} = \alpha y_{i,t-1} + \beta X_{it} + \eta_i + \epsilon_{it}$$

for $i = 1, \ldots, N$

$\{t = 1, \ldots, T\}$

where the dependent variable, $y_{it}$ denotes private investment as a share of GDP, $y_{i,t-1}$ is the value of private investment at the beginning of the period (proxy for initial conditions and the persistence of investment over time), $X_{it}$ is a vector of determinants of private investment (GDP growth, trade, public investment, inflation, population, FDI, exchange rate and human capital), $\eta_i$ represents country unobserved heterogeneity while $\epsilon_{it}$ is the error term.

In order to take into account auto-correlation induced by the dynamic nature of the baseline model, reverse causality problem due to the inclusion of endogenous right hand side variables, and the presence of country specific characteristics, the econometric model is estimated using system GMM methods. Using this procedure, all the right hand side variables are assumed to be endogenous and therefore instrumented using their lag values as exogenous instruments. In order to ascertain the validity of the instruments and results, the Hansen $J$ test, Difference in Hansen test and the Arellano tests for auto-correlation in the residuals are implemented and reported in all the system GMM regression.

The control variables encompassed in $X_{it}$ consist of macroeconomic factors which have theoretically and empirically been found to influence the level of private investment in West Africa. Private investment at the beginning of each year is included in the model to capture the initial conditions of a country. It is envisaged to assume a positive sign, implying path dependent in private investment. Following the accelerator hypothesis, GDP growth is included as a proxy for a country’s level of economic activity, consumers’ purchasing power and aggregate demand. It is expected to positively promote private investment as the value of capital stock depends positively on the level of demand in an economy. In addition, countries with higher GDP growth rates are associated with high incomes, which translate to high savings which would in turn lead to increased investment.
The coefficient of gross public investment can assume either sign depending on whether government investment complements or substitutes the private sector. It is envisaged to have a positive sign if it accelerates private investment through the provision of investment infrastructure and public goods. On the other hand, a negative sign is expected if public investment is financed by deficit financing. This arises because of the associated increase in domestic interest rates which induces competition of funds between the public and private sectors, and thus results to the crowding out of private sector credit.

Human capital, proxied by gross primary school enrollment rate, is envisaged to promote private investment by increasing the quality and quantity of skilled workforce. An increase in the levels of human capital is associated with higher capacity to adopt innovative and efficient production techniques, research and development and higher levels of managerial skills. Population growth on the other hand is included to control for country size and its sign is theoretically unclear. It is envisaged to have a negative sign if a high population reduces the amount of national savings in preference for consumption. However, with increasing middle income population in West Africa, population growth can assume a positive sign if it results to increase in domestic demand, labor and productivity.

Trade liberalization, proxied by a country’s trade as a share of GDP, is envisaged to promote private investment in twofold. One, with the reduction in tariff imports, the supply of capital imports used as intermediary inputs in the production process is bound to increase. Second, by integrating domestic economies into global trade, trade liberalization can enhance productivity, innovation and competitiveness. Conversely, increase in trade can expose economies to external competition and vulnerability to shocks, undermining its growth. Therefore, the coefficient of trade is theoretically unpredictable.

Both macroeconomic stability and the quality of the investment climate are proxied by the inflation rate. Inflation, measured by the consumer price index, captures the level of uncertainty in the economy. It is expected to have a negative sign, implying that countries with high rates of inflation are characterized by depressed private investments as a result of increased riskiness of entrepreneurial ventures, the destabilization of market prices and the reduction in consumers’ purchasing power.

Exchange rate is included in the model to capture its effect on private investment via its impact on the competitiveness of exports and the cost of imports. An overvaluation of the exchange rate is envisaged to hamper the growth of the private sector by reducing the competitiveness of a country’s export. Thus, in the event that private investment is driven by external demand, the coefficient of exchange rate is assumed to portray a negative sign. Similarly, in the case of devaluation, the cost of imports is expected to increase, deterring the growth of sectors such as manufacturing and industry, as they are heavily dependent on the importation of capital goods and equipment.
Finally, FDI inflows in an economy are expected to complement private investment and thus exhibit a positive coefficient. As the level of FDI increases, the private sector can benefit from positive spillover effects in terms of technology and innovation, forward and backward linkages and the growth of small scale enterprises which provide production inputs to foreign firms.

3.1 Descriptive Results

Table 1 presents a correlation matrix of private investment, governance indicators and infrastructural proxies for the period 1994 to 2011. The results show that the six governance indicators are highly correlated with private investment, underscoring the crucial role of the state in promoting private sector development through the formulation and implementation of sound policies and regulations. Public institutions, especially those which enforce the rule of law, property rights and enforcement of contracts are crucial in providing an investor friendly atmosphere. In addition, the correlation results underscore the fact that governance effectiveness, the quality of public services, as well as political stability and the control of rent seeking are a necessity for attracting and sustaining private investment.

With regards to infrastructure, the results underscore the importance of public investment targeted to the provision of transport and communication infrastructure. Addressing infrastructural deficits is associated with lowering the cost of doing business and increasing profitability of entrepreneurial ventures. Finally, the positive and significant relationship between private investment and domestic credit implies that the provision of financial services for entrepreneurial activities is a crucial element in attracting and boosting the growth of private investment in the region.

Table 1: Pairwise Correlations; 1994-2011

<table>
<thead>
<tr>
<th>Private Investment ( % of GDP)</th>
<th>Rule of law</th>
<th>Voice and accountability</th>
<th>Control of corruption</th>
<th>Political stability</th>
<th>Government effectiveness</th>
<th>Regulatory Quality</th>
<th>Telephone (per 100 people)</th>
<th>Paved roads (in kilometers)</th>
<th>Domestic credit (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.454 ***</td>
<td>0.316 **</td>
<td>0.486 ***</td>
<td>0.309 ***</td>
<td>0.398 ***</td>
<td>0.348 ***</td>
<td>0.448 ***</td>
<td>0.427 ***</td>
<td>0.442 ***</td>
</tr>
</tbody>
</table>

Significance is denoted as * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2 presents fixed effect regression results which take into account country specific characteristics which do not change over time. Across the specifications, the results support the significant role of the state in facilitating trade between countries, the importance of FDI,
exchange rate policies and human capital as vital channels for promoting the development of the private sector.

Table 2: Fixed Effects Regressions, 1985-2011

<table>
<thead>
<tr>
<th>Dependent variable: Private Investment (% of GDP)</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (%, growth)</td>
<td>-0.959*</td>
<td>-0.581</td>
<td>-0.854**</td>
<td>-0.723**</td>
</tr>
<tr>
<td></td>
<td>(-1.74)</td>
<td>(-1.44)</td>
<td>(-1.98)</td>
<td>(-2.23)</td>
</tr>
<tr>
<td>Trade (% of GDP)</td>
<td>0.100***</td>
<td>0.076***</td>
<td>0.084***</td>
<td>0.086***</td>
</tr>
<tr>
<td></td>
<td>(3.38)</td>
<td>(2.90)</td>
<td>(3.40)</td>
<td>(3.42)</td>
</tr>
<tr>
<td>FDI (% of GDP)</td>
<td>0.599***</td>
<td>0.576***</td>
<td>0.562***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.83)</td>
<td>(3.84)</td>
<td>(3.92)</td>
<td></td>
</tr>
<tr>
<td>Exchange rate</td>
<td>-0.001***</td>
<td>-0.001***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-3.34)</td>
<td>(-7.58)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human capital (Enrollment)</td>
<td>0.036*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.76)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>8.075***</td>
<td>7.412***</td>
<td>8.122***</td>
<td>5.356**</td>
</tr>
<tr>
<td></td>
<td>(3.30)</td>
<td>(3.15)</td>
<td>(3.61)</td>
<td>(2.19)</td>
</tr>
</tbody>
</table>

Number of Observations 315 314 313 294
Number of Countries 13 13 13 13
R-Squared 0.3075 0.4017 0.3812 0.4014

z statistics in parentheses whereby significance is denoted by *** for p<0.01, ** for p<0.05 and * for p<0.1; Robust standard errors are clustered within country.

In all the specifications, the coefficient of trade retains its positive and statistical significance at the one percent level. This result highlights the crucial role of trade in promoting and accelerating private investment in West Africa. One of the key ways of intensifying trade in the region is by accelerating regional integration through the eliminating of tariff and non tariff barriers, as well as harmonizing trade policies at both national and regional levels. In pursuing regional integration, the expansion of intra-African trade can create opportunities for increasing returns to scale and boost production by developing regional value chains, as well as increasing global competitiveness and market power. Given that around 67 per cent of intra-African trade is in the manufacturing and value addition sector, efforts in boosting intra-African trade are crucial given that these sectors have a huge potential of generating job opportunities and reducing poverty levels (UNECA et al, 2013).

The importance of foreign capital inflows in promoting private investment is affirmed by the positive and significant coefficients of FDI at the one percent level. FDI can accelerate private sector investment by facilitating the transfer of skills and knowledge, technology, innovation and imitation. In addition, the presence of foreign enterprises can stimulate domestic investment by building both forward and backward linkages with other sectors of the economy. This has in turn the potential to encourage the growth of small and medium sized enterprises and as such provide
income to the rural population, who are often dominant in the informal and small scale entrepreneurial ventures.

Human capital on the other hand exhibits a positive relationship with the levels of private investment, although only significant at the ten percent level. This result supports the crucial role of the state in providing education and boosting the productivity of the workforce through the provision of basic education. The low insignificance of human capital may however be a reflection of either the choice of the proxy in the estimation or the quality of education which does not augur well with the labor market. In the case of the latter, this calls on governments to design and implement educational policies aimed at reducing skill mismatch and increasing transitional rates to post primary education as a means of equipping the workforce with relevant working skills pertinent to the needs of the private sector.

Exchange rate policies in contrast turn to have a negative impact on private investment, indicating the importance of implementing sound exchange rate policies and regimes as a key component of attracting private investment in the region. Given the reliance on the importation of capital imports as intermediate goods for production, it is crucial for the state to ensure that equilibrium exchange rate policies prevail in order to balance gains from both exports and imports.

Finally, the negative and significant relationship between population and private investment may perhaps be a reflection of a higher marginal propensity to consume. Given the high poverty in the region, estimated at around 24 percent using the poverty gap, as well as the prevailing high inequality levels, income seems to be dedicated to basic consumption, rather than been allocated to savings and investments.

In conclusion, the results underscore the need for renewed and concerted efforts by policymakers in boosting trade, FDI, human capital and implement sound exchange rate policies if the region is to benefit from increased flows of private investment. In order to achieve these goals, policy agenda thus need to address the role of regional integration and intra-African in attaining these objectives. Given the small and fragmented size of the economies, as well as the need to expand end markets for produced goods, regional integration can pave way for broad based development whilst maximizing the welfare of economies and accelerating efforts to attain economic transformation.
Table 3: System GMM Results, 1985-2011

<table>
<thead>
<tr>
<th>Dependent variable: Private Investment (% of GDP)</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Private Investment</td>
<td>0.625***</td>
<td>0.555***</td>
<td>0.501**</td>
<td>0.374**</td>
</tr>
<tr>
<td></td>
<td>(4.00)</td>
<td>(6.00)</td>
<td>(2.60)</td>
<td>(2.35)</td>
</tr>
<tr>
<td>Human capital (Enrollment)</td>
<td>0.041</td>
<td>0.052*</td>
<td>0.058</td>
<td>0.084*</td>
</tr>
<tr>
<td></td>
<td>(0.94)</td>
<td>(1.71)</td>
<td>(1.12)</td>
<td>(1.95)</td>
</tr>
<tr>
<td>FDI (% of GDP)</td>
<td>0.341***</td>
<td>0.333***</td>
<td>0.409**</td>
<td>0.450***</td>
</tr>
<tr>
<td></td>
<td>(2.80)</td>
<td>(4.48)</td>
<td>(2.52)</td>
<td>(2.88)</td>
</tr>
<tr>
<td>GDP growth</td>
<td>0.086</td>
<td>0.120</td>
<td>0.333**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.33)</td>
<td>(0.44)</td>
<td>(2.30)</td>
<td></td>
</tr>
<tr>
<td>Public Investment ( % of GDP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.186</td>
<td>0.022</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.45)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Inflation (CPI)</td>
<td></td>
<td></td>
<td>-0.072**</td>
<td>-0.056*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(-2.33)</td>
<td>(-1.88)</td>
</tr>
<tr>
<td>Population (%, growth)</td>
<td></td>
<td></td>
<td></td>
<td>-1.291</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(-0.62)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.759</td>
<td>0.429</td>
<td>-0.805</td>
<td>2.781</td>
</tr>
<tr>
<td></td>
<td>(0.36)</td>
<td>(0.21)</td>
<td>(-0.18)</td>
<td>(0.33)</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>281</td>
<td>281</td>
<td>255</td>
<td>255</td>
</tr>
<tr>
<td>Number of Countries</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Number of Instruments</td>
<td>7</td>
<td>9</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Hansen Test (p-value)</td>
<td>0.440</td>
<td>0.563</td>
<td>0.631</td>
<td>0.851</td>
</tr>
<tr>
<td>Diff-in-Hansen Test (p-value)</td>
<td>0.440</td>
<td>0.563</td>
<td>0.631</td>
<td>0.851</td>
</tr>
<tr>
<td>AR(1) Test p-value</td>
<td>0.112</td>
<td>0.123</td>
<td>0.099</td>
<td>0.106</td>
</tr>
<tr>
<td>AR(2) Test p-value</td>
<td>0.267</td>
<td>0.269</td>
<td>0.245</td>
<td>0.251</td>
</tr>
</tbody>
</table>

z statistics in parentheses whereby significance is denoted by *** for p<0.01, ** for p<0.05 and * for p<0.1; All standard errors are two-step, corrected for finite sample bias, robust and clustered within country.

In order to address the aforementioned econometric challenges related to reverse causality of the right hand side variables in the regression specification, table 3 presents estimates obtained from the implementation of System GMM regression techniques. The results obtained are consistent with those in table 2 as well as both economic theory and empirical studies.

In the lower section of table 3, the validity of the System GMM estimates are assessed by reporting the p-values corresponding to the Hansen J test, the Difference in Hansen test and the Arellano test of autocorrelation of order two (AR-2). All the diagnostic tests provide evidence to support the exogeneity of the instruments and the regression estimates. The p-values corresponding to both the Hansen J test and the Difference in Hansen test confirm the validity and exogeneity of the instruments used while the AR (2) test fail to reject the null hypothesis of no autocorrelation in the residuals. The instruments in all the columns are collapsed as suggested by Roodman (2009) and the standard errors calculated are two-step, corrected for finite sample
bias and clustered within countries in order to correct for heteroskedasticity and serial correlation.

Across the different specifications, the coefficient of initial private investment is positive and highly significant, highlighting the persistence of investment over time and the fact that initial levels of a country’s investment determine the future accumulation of private capital stock.

Even after correcting for possible endogeniety of FDI, system GMM results underpin the crucial role of FDI as a channel for boosting access to superior production technology through the importation of capital goods. However, as is the case in most countries, FDI continues to be concentrated in extractive industries which exhibit minimal backward and forward linkages, vertical integration and value addition initiatives (UNECA, 2013). Therefore, the extent to which FDI positively impact the private sector and the economy as a whole crucially hinges on the capacity of the state to design and implement sound policy measures.

The size of the market, measured by GDP growth, provides evidence in favor of the accelerator hypothesis, confirming the notion that the levels of investment are an increasing function of economic activity and output. This finding lays foundation for the importance of regional integration as a tool for pooling and developing large markets in order to foster competition among firms, attain economies of scale, and ultimately boost the development of the private sector. The formation of a Continental Free Trade Area (CFTA) provides an opportunity for economies to gain, not only from increased participation of the private sector, but also in addressing social economic challenges affecting the region.

The empirical findings are also assertive of the adverse effects induced by macroeconomic instability in an economy. The coefficient of inflation is negative and statistically significant at the conventional levels, highlighting distortions imposed on private sector capital formation. High inflation rates not only discourage savings which are crucial for investments, but also distort business planning as firms cannot predict future demand with certainty. Beside the negative effect on the functioning of financial institutions and markets, inflation also signals macroeconomic instability which in turn affects international trade by inducing uncertainty on interest rates, future prices of products and exchange rates.

Finally, consistent with the fixed effect regressions, human capital continues to exhibit weak relationship with the levels of private investment. This finding highlights the role of the state in promoting the build up of market-relevant working skills through the improvement of the quality and delivery of education in the region.

4. Conclusion and Policy Implications

This paper has investigated the macroeconomic factors that determine the level of private investment in West Africa. In a sample of 14 countries for the period 1985 to 2011, results from
both fixed effects and panel GMM regression techniques underscore the importance of several factors such as trade, foreign direct investment, human capital and economic growth as key determinants of boosting and accelerating private capital formation in the region. In addition, the econometric results underscore the negative effect of macroeconomic instability and population growth as well as the importance of exchange rate policies in promoting private investment.

The importance of foreign direct investment in promoting private investment underscores the need for effective state interventions in ensuring that gains emanating from FDI are internalized to the beneficial of the economy. There are several policy measures which economies can adopt in order to strengthen existing linkages between private investment and FDI. One is the need to promote joint ventures between domestic and foreign investors as channel of yielding mutual beneficial outcomes. This follows from several studies which show that joint ventures are associated with increased job creation and poverty reduction. Second, the imposition of local content requirement to ensure that foreign firms source part of their intermediate output from the domestic firms can benefit the economy by creating jobs opportunities and provide income to small business ventures.

The evidence on the need to promote trade as well as increase market size as a channel of boosting private investment highlights the need to fast track trade liberalization and facilitation programs as well as address institutional barriers which constraint the movement of factors of production across borders. Promoting regional integration as well as accelerating efforts to boost intra-African trade and the formation of a Continental Free Trade Area can be instrumental in ensuring that trade is beneficial to the economy. This can ensure that economies gain from enlarged markets, efficient allocation of resources and increase in competitiveness. This in turn has the potential to increase the flow of private investment as well as lead to increase in production and job creation.

Finally, a comprehensive and coordinated regional framework which encompasses various stakeholders is essential in building capacity in promoting trade and the growth of the private sector. Institutional factors such as political and macroeconomic stability, government efficiency and regulatory quality remain a core part of this strategy. Addressing infrastructural deficits as well as providing and simplifying access to finance for small sized business entrepreneurs can be instrumental in reducing the cost of doing business as well as ensuring that progress is achieved towards the formation of a regional market characterized by a vibrant private sector and sustained social-economic growth and development.

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