

PRIVATE EQUITY AND ECONOMIC GROWTH: A CRITICAL REVIEW OF THE LITERATURE

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ABSTRACT: *There has been a debate on whether private equity affects economic growth of a region or the reverse effect. Therefore there has been need to evaluate the interrelationship between private equity and economic growth across the globe while considering the influence of the financial environment. Hence, this paper analyses these interrelationships using a theoretical approach. The key findings are that private equity tends to increase when there is economic growth in an economy as underpinned by the economic growth models which contend that for economic growth to be sustainable there should be continuous advancement in technical knowledge mainly in the form of new products, processes and markets. Furthermore, a well developed legal and regulatory framework would lead to increased financial activities in a country hence facilitating exits which would result to a more favorable legal environment that induces venture capitalists and PE funds to invest more often in the home country.*

KEYWORDS: Private equity, venture capital, financial environment, economic growth.

INTRODUCTION

Private equity (PE) can be described as capital provided in the medium to long term by investors to non-quoted firms with a high growth potential. Gillian and Wright (2008) define PE as risk capital provided in a wide variety of situations ranging from finance provided to business start ups to the purchase of large, mature quoted companies. Most firms have expansion or growth as one of their main objectives hence this requires access to additional capital to finance this growth. There has been a variety of common sources of capital ranging from bank loans, debentures, share capital, borrowing from family and friends and retained earnings. However PE is becoming a source of financing to firms especially those with a high growth potential where it enhances business entities to achieve their growth objectives and offer strategic advice to businesses in their various stages of development (EVCA, 2007; Gillian and Wright, 2008). PE can be in various forms which include venture capital (VC), leveraged buyouts and mezzanine capital. VC mainly refers to funds offered to a firm at start up or early stage or at later stage of their growth life cycle. Leveraged buyouts popularly known as LBOs refer to the acquisition of a firm by a specialized investment firm using a relatively small portion of equity and a relatively large portion of outside debt financing (Kaplan and Stromberg, 2009). Finally mezzanine capital refers to financing composed of both debt and equity.

The economic development of a country or region is a key factor to economic growth especially in emerging markets. The economic growth of a country can be described as an expansion of Gross

Domestic Product (GDP) or Gross National Product (GNP), where GDP is a function of capital, labour, land and entrepreneurship. Dornbusch, Fischer and Startz (2004) define GDP as the value of all final goods and services produced in a country within a given period while GNP refers to all goods and services produced by nationals, including expatriates' production. Therefore, as a nation increases its capital productivity and capacity through technological advancements or its labour productivity through human capital investment, GDP increases hence GDP growth can also be spurred by successful entrepreneurial initiatives (Makhene, 2009). Real GDP measures changes in physical output in the economy between different time periods by valuing all goods produced in the two periods at the same prices while nominal GDP measures the value of output in a given period in the prices of that period (Dornbusch et al, 2004).

PE deals in the recent past have been emerging stronger in developing economies but in developed regions there have been some declines in PE activity. In Europe, PE investments were above €1 billion in 2012 despite a 19.2% decline from the 2011 figures. In the same year, fundraising amounted to €673 million which represents a decline of 28% compared to the previous year. This could be attributed to the global trend in 2012 whereby fundraising required more time to complete as compared to prior rounds that occurred before the global financial crisis (EVCA, 2013). A similar trend is observed in the VC activity level in the US that has declined to almost half of what it was in the year 2000. The VC under management by the end of 2012 declined to US \$199.2 billion from US \$261.2 billion in the year 2000 (NVCA, 2013). This decline could be attributed to the crisis effects of 2007/2008.

As alluded to earlier, growth is a key objective of firms and also the case for economies. Hence there is a need to evaluate the contribution of PE activity on economic growth in economies. On the other hand, could it be that economic growth contributes to increased PE activity? These are some of the concerns that this paper seeks to address considering that most studies on PE have mainly focused on other concepts such as innovation, returns, leverage and regulation (Kaplan and Stromberg, 2009; Cumming and Walz, 2009; Friedman and Grose, 2006; Ferran, 2007). On the relationship between PE investments and economic growth, innovation, productivity and competitiveness in undertaking PE have been found to contribute to increased economic growth (EVCA, 2013; Makhene, 2009). However these studies have not clearly highlighted the influence of regulation on the impact of PE on economic growth. On the other hand the relationship between PE and economic growth could be in the reverse, that is, economic growth contributing to PE activity. Stromberg (2009) argues that the challenge in undertaking such studies is to control for the reverse causality explanation in that growth causes PE investment, rather than vice versa. Therefore, this paper seeks to examine the theories applicable in analyzing the interrelationship between PE and economic growth, establishing the direction of this interrelationship and finally to stimulate further research on PE and economic growth. This paper contains section two which discusses the theories underpinning PE and economic growth, section three which discusses the empirical literature and a conceptual model and section four which gives a summary and conclusion.

THEORETICAL LITERATURE REVIEW

Economic Growth Models

Over the years there has been interest in the study of economic growth especially the sources, forms and effects of economic growth. Hence there have been two main models that have emerged to explain economic growth which are exogenous growth models and endogenous growth models. The exogenous growth models contend that in order to sustain a positive growth rate of output per capita in the long run, there should be continuous advancement in technical knowledge in the form of new products, processes and markets. Solow (1956) and Swan (1956) developed neoclassical growth models arguing that lack of technological advancement would cause effects of diminishing returns to curtail economic growth. Also in support of exogenous growth models are separate but similar models developed by Harrod and Domar. The Harrod-Domar growth models theorize on the empirical work of Keynes (1936) that explains why markets may not attain full employment. The Harrod-Domar models considers a closed economy in which one homogenous good is produced which may be either used as an investment good or as a consumption good depending on the economic agent (Harrod, 1939; Domar, 1966).

The endogenous growth theory explains long-run growth as originating from economic activities that create new technological knowledge. Frankel (1962) using the AK theory attempts to explain that aggregate production function can show a constant or increasing marginal product of capital. This is because as firms accumulate more capital, some of that increased capital will be the intellectual capital that creates technological advancement which will cancel out the tendency for the marginal product of capital to diminish (Howitt, 2000). In support of endogenous growth theory there are versions of the innovation-based growth theory, which acknowledges that intellectual capital which is a source of technological progress is distinct from physical and human capital (Romer, 1990; Aghion and Howitt, 1992; Grossman and Helpman, 1991).

Financial Contracting Theories

These theories entail models based on a variety of economic principles, such as costly state verification, adverse selection, moral hazard, the allocation of control rights, and risk sharing (Roberts and Sufi, 2009). It involves the principal agency approach, incomplete contracting and control rights and the debt approach. The first set of theories is the principal agency approach that was expounded by Alchian and Demsetz (1972) and further developed by Jensen and Meckling (1976). It is expected that agents will act and make decisions in the interest of the principal. Hence, the shareholder principals have a collective action problem that leaves them without an economic incentive to monitor their manager agents. The theory holds that a hostile takeover could counter the agency problem. Holmstrom (1979) argues that the agent's effort is unobservable to the principal but signals, such as firm output or profits, are correlated with effort and can be contracted on. The optimal incentive contract ensures that the agent puts in enough effort by making the agent's compensation dependent on the outcome of the signals. In the basic model, and in the absence of risk-aversion, the investor maximizes the sensitivity of the agent's compensation to the signal. Hence, it is in the investor's interest to make the entrepreneur's compensation contingent on as many verifiable signals correlated with effort as possible (Holmstrom, 1979; Innes, 1990).

The second set is the incomplete contracting and control rights which were introduced by Grossman and Hart (1986) and Hart and Moore (1988, 1990). These theories change the traditional principal-agent model assumptions by assuming that actions are observable, but not verifiable while output and monetary benefits may or may not be contractible. Hence, control rights that determine who chooses which action to take is vital (Kaplan and Stromberg, 2002). Aghion and Bolton (1992) contend that the project yields monetary benefits that are verifiable and transferable to outside investors and private benefits or actions that are non-verifiable to the entrepreneur. The magnitude of these benefits, in turn, depends on what (non-verifiable) action is taken with respect to the project hence introducing a conflict of interest. Aghion and Bolton (1992) show that as the external financing capacity of the project increases (i.e. the higher the profitability of the project and the lower the conflicts of interest), control moves from more investor control to more entrepreneur control. Specifically, for projects with high external financing capacity, the entrepreneur should always have control. As external financing capacity decreases, there should be state-contingent control similar to a debt contract that transfers control to investors only in bad states of the world.

Finally, for projects with low external financing capacity, the investor should always be allocated control. Dewatripont and Tirole (1994) advance on Aghion and Bolton (1992) model by focusing on the optimal correlation between control rights and cash flow rights whereby the entrepreneur always prefers to take the riskier action (e.g. continuing the project), even though it will be *ex-post* optimal to take the less risky action (e.g. liquidate the project) when the project is adverse. They indicate that when performance is poor, the person in control should have a cash flow claim that is concave in performance such as debt, while when performance improves more control should be transferred to a holder of a convex cash flow claim such as equity.

The last set of financial contracting theories predicts that the investor should hold a debt-like claim. The security design theories based on classical principal agent theory like that of Innes (1990) show that giving investors a senior claim is useful for incentive purposes as it makes the manager's residual claim more sensitive to performance. Similarly, signaling theories such as Myers and Majluf (1984) show that in an asymmetric information setting, the manager can signal that success is more likely by offering the investor a senior claim that receives all of the value in case of failure. As per these models, VC liquidation rights should be stronger when there is greater uncertainty about venture quality and founderability. Other than seniority, however, the other key characteristic of debt is the ability to take control and liquidate the firm when performance is bad and this can be interpreted as another way of allocating the invest or state-contingent control (Kaplan and Stromberg, 2002). One criticism, however, of this explanation for debt as argued by Hart (1995) is that changes in control in Aghion and Bolton (1992) do not necessarily coincide with default on a contracted payment, which is a central feature of real-world debt contracts. This feature of debt can be derived in a model where not only actions, but also profits and cash flows are non-observable or non-verifiable.

EMPIRICAL LITERATURE REVIEW

Private Equity and Economic Growth

In the literature, PE has been seen to have a positive relationship with economic growth of a country or region. In Europe, some studies have analyzed the relationship between PE and economic growth such as EVCA (2013) and Stromberg (2009) whereby the findings indicate that the beneficial effect of PE on productivity and innovation illustrates a positive impact on economic growth. Also Makhene (2009) has similar findings when focusing on the impact of PE investments in the emerging markets of Middle East, Asia, Latin America, Africa and East & Central Europe. The research findings show that PE can stimulate growth by encouraging technological and industry innovation, Greenfield job creation and better corporate governance. However, the impact of PE on economic growth has not been substantially highlighted as alluded to by Stromberg (2009) indicating that no rigorous academic study has analyzed whether PE has an impact on the GDP growth of a country. The study further contends that the problem in undertaking such studies is to control for the reverse causality explanation, that is, growth causes private equity investment, rather than vice versa. Armour and Cumming, (2006); Gompers and Lerner, (1999); Cumming and MacIntosh, (2006) seem to support the argument that expected economic growth enforces PE activity since numerous investment opportunities arise in economies with high growth prospects.

In other regions such as Africa and Asia, studies are quite limited in explaining the relationship between PE and economic growth. However, DeBeer and Nhleko (2009) examine the economic impact of PE in financial markets in South Africa. The findings show that PE transactions in South Africa are quite limited. PE funding from non-residents has led to capital flows that affect the BOP significantly and South Africa's foreign debt and international investment position. In Singapore, Koh and Koh (2002) seek to establish the effect of VC on economic growth. The findings indicate that VC is an alternative model of innovation and technological change. VC investments in local startups in Singapore is 0.18% of the GDP ranking fifth globally in 1999 survey. However, the study does not clearly show the impact of VC on economic growth.

In Kenya, the few studies done on PE have focused on the impact of VC on small and medium enterprises (SMEs) growth and also on PE adoption by entities. For instance, Jagongo (2012) sought to investigate the level of awareness, appreciation and acknowledgment among the Kenyan investment community about the role VC financing play in boosting industrial development through SMEs. Also Memba et al (2012) investigate the impact of VC on growth of Small and Medium Enterprises (SMEs). Generally the findings of these studies seem to agree that SMEs that use VC experience improved growth and that all entrepreneurship development stakeholders are largely ignorant of the potential of VCs to bridge the SME financing gap. This is also similar to research findings that SMEs have a lower adoption of PE funds as compared to large corporate companies (Gatauwa, 2014).

The PE deals in Kenya declined from US \$83m in 2011 to US \$36.1m in 2012 but then increased to US \$112m (Deloitte, 2012; 2013; 2014) whereas over the same time period, GDP growth increased from 4.4% in 2011 to 4.7% in 2013. Nevertheless, Kenya recorded the highest number of PE deals in East Africa which could be attributed to the country's economic robustness compared to the neighboring countries. However, the economic growth models seem to support a

positive relationship between PE and economic growth provided that there is advancement in technical knowledge especially in the form of new products, processes and markets in a country.

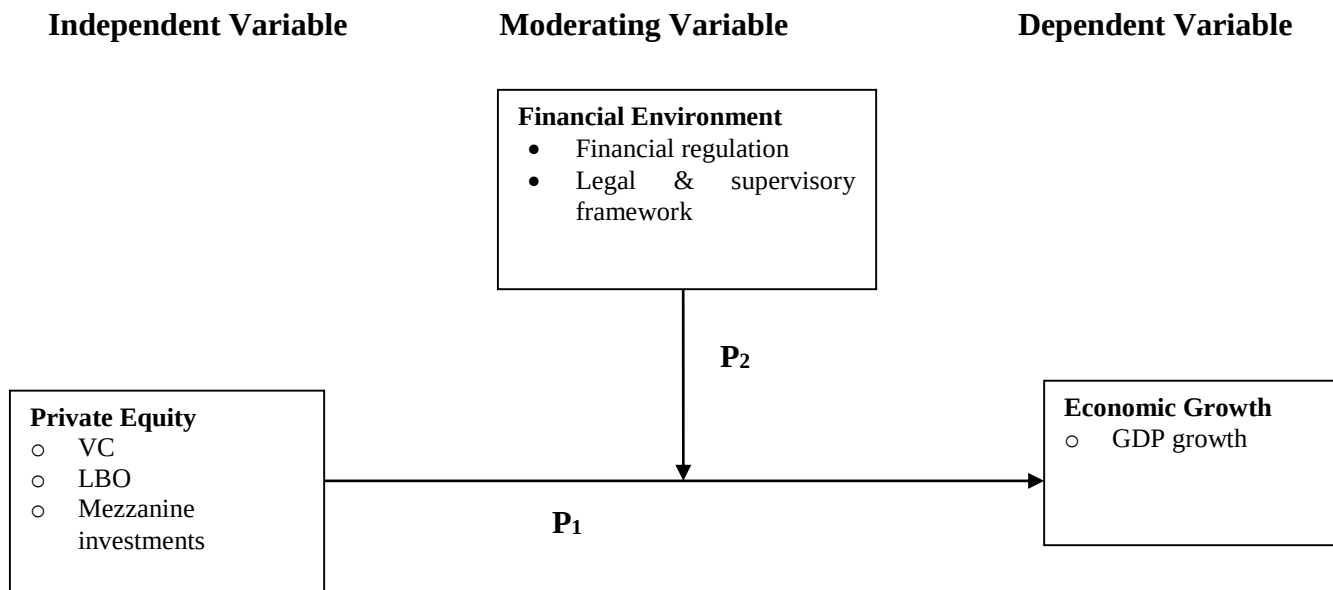
Private Equity, Financial Environment and Economic Growth

The PE market has been facing several challenges concerning de-equalization of buyouts, conflicts of interest, inadequate regulation and systemic risk to capital markets in economies (KPMG, 2007; Friedman and Grose, 2006; Gatawa, 2014). This could partly explain why adoption of PE in some regions is low. In addition, OECD-MENA report (2006) indicates that the legal and regulatory infrastructure is equally crucial for development of a local PE industry or attraction of foreign equity. The report further indicates that the aspects of regulatory environment most relevant to PE firms include transparency, taxation structure, corporate governance framework, intellectual property legislation and commercial legislation. There seems to be a consensus that a well developed legal and regulatory framework would lead to increased financial activities in an economy (La Porta et al, 1998; Friedman and Grose, 2006; Cumming and Johan, 2007). However, Ferran (2007) in examining the regulation of PE backed LBO activity in Europe finds that at continental level there has been a preference for new legislation as the mechanism for achieving policy goals in relation to financial markets.

In addition, the existing literature shows that the legal framework relates to the size of an economy's VC industry, to the valuations and returns, to the quality of support that VCs provide to their portfolio companies and the structure of VC contracts and deal characteristics (Cumming and Walz, 2009; Lerner and Schoar, 2005). Furthermore, Cumming and Johan (2007) argue that a higher quality of a country legal system facilitates exits hence the expectation is a more favorable legal environment to induce VCs to invest more often at home and less often abroad. In the Kenyan context, the year 2012 saw an increase of PE deals by 50% which was the highest amongst the East African countries which could be attributed to the relatively good legal and financial environment. Furthermore the above developments have seen the establishment of the East African Venture Capital Association being based at Nairobi, Kenya.

Conceptual Model

The conceptual model has combined the ideas of various theories underpinning PE as discussed previously. The conceptual model presents the conceptualized interaction among private equity, (independent variable), financial environment (moderating variable) and economic growth (dependent variable). The independent variable is private equity which is determined by the level of investments made composed of VC, LBOs or mezzanine capital with regard to early development, expansion, buyout, late stage investment or mezzanine financing. The dependent variable is economic growth and it is represented by GDP growth. The moderating variable is financial environment which is represented by financial regulation, legal and supervisory framework. Therefore the conceptual model postulates that the relationship between PE and economic growth would be influenced by the financial environment as depicted below.



Source: Empirical studies reviewed

Propositions

P₁: There is a relationship between PE and economic growth in Kenya.

P₂: Financial environment has an influence on the relationship between PE on economic growth in Kenya.

SUMMARY AND CONCLUSION

PE seems to have a positive relationship with economic growth of a country or region. In the empirical literature, some studies indicate that PE can stimulate growth by encouraging technological and industry innovation, Greenfield job creation and better corporate governance. However, the impact of PE on economic growth has not been substantially highlighted and a key challenge being to control for the reverse causality explanation, that is, growth causes PE investments, rather than vice versa. Therefore a further analysis of the relationship between PE and economic growth can be conducted to examine if there is reverse causality using an empirical approach where Granger Causality tests are conducted. In evaluating the interrelationship between PE, regulation and economic growth there seems to be agreement that a well developed legal and regulatory framework would lead to increased financial activities in a country. There is the argument that high quality of an economy's legal system facilitates exits hence resulting to a more favorable legal environment that induces venture capitalists and PE funds to invest more often in the home country. The review of exogenous and endogenous growth models indicate that in order to sustain a positive growth rate of output per capita in the long run, there should be continuous advancement in technical knowledge in the form of new products, processes and markets. Hence increased PE investment activity is expected to contribute to PE investee firms enhancing their operating and financial capacities therefore inducing economic growth.

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