Essays on Financing and Returns on Investment

JAMES DZANSI

The purpose of this thesis is to provide further insights into why some economic agents invest more than others and why are investments more productive in some contexts than others? This thesis consists of three individual essays and an introductory chapter. Each essay is self-contained and can be read independently. They build on the idea that whereas increasing productive capacity is central to improving the standard of living, the prevailing institutional, financial and corporate governance frameworks have direct and immediate impact on the incentive, the wherewithal and the returns on investment. The first two essays are motivated by the increasing inflow of remittances into the developing world and the importance of manufacturing growth in wealth creation. The first essay examines the effect of remittance inflows from abroad on domestic investment outlays in developing countries. The study focuses on the moderating role of institutional quality and financial development. It builds on previous studies about the role of external inflows, financial development and institutional quality in fostering domestic investment. The second essay investigates whether remittance inflows spur manufacturing growth among a sample of remittance dependent economies. This essay relates to the theoretical and empirical literature on the Dutch disease, the financing-gap and the demand deficiency perspectives of external inflows into a small opened economy. It also relates to the literature on financial development and institutional economics. The third and final essay is built on the corporate governance literature concerning the monitoring role of large shareholders. It seeks to contribute to the current understanding regarding what drives the large shareholder to monitor the firm's decision-making in order to induce optimal return on investment. It examines the relevance of both extrinsic and intrinsic motives of large shareholders. The paper draws on diverse theoretical and empirical contributions in economics, corporate governance, family business, management and the social embeddedness literature.

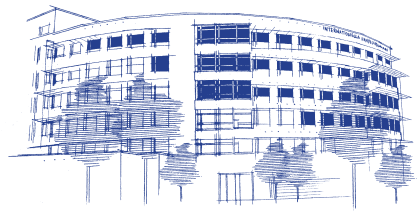
JÖNKÖPING INTERNATIONAL BUSINESS SCHOOL
JÖNKÖPING UNIVERSITY

ISSN 1403-0470 ISBN 978-91-86345-25-9

JAMES DZANSI Essays on Financing and Returns on Investment JIBS Dissertation Series No. 074 JIBS

Essays on Financing and Returns on Investment

JAMES DZANSI



Jönköping International Business School
Jönköping University

JIBS Dissertation Series No. 074 • 2011

Essays on Financing and Returns on Investment

James Dzansi

Abstract

This dissertation consists of an introductory chapter and three independent essays on financing investment and their returns. The first essay studies the impact of remittances on domestic investment. The analysis is carried out with a focus on the moderating roles of domestic financial development and institutional quality. The empirical results suggest that remittance inflows are associated with increased domestic investment spending, particularly under conditions of inadequate financial intermediation and poor institutional quality. The second essay evaluates whether remittance inflows into the developing world impedes or spurs manufacturing growth. This study uses manufacturing data on a sample of 40 remittance dependent economies over the period from 1991 to 2004. The results suggest that remittance inflows accelerate manufacturing growth. This evidence is robust to industry- and year-specific effects, a range of country level control variables, and a number of estimators. The final essay examines the monitoring role of large shareholders and returns on investment. Specifically, the paper investigates the relevance of intrinsic motives of the large shareholder to monitor management in order to induce optimal return on investment. The findings suggest that large shareholders are actuated by both intrinsic and extrinsic motives to minimize managerial opportunism and inefficiency.

INTRODUCTION AND SUMMARY OF THE THESIS

James Dzansi

1. INTRODUCTION

1.1. On the importance of investment, financial intermediation and institutions

The central fact of the differences in the standard of living across generations and space is the differences in productive capacity. The nature of opportunities to increase productive capacity, the wherewithal to invest and the expected returns are influenced, among other things, by the depth of financial intermediation and the quality of the institutional arrangements. As an illustration, imagine the proverbial Robinson Crusoe economy with one household – the Robinsons. Suppose the Robinsons subsists initially working long hours on the farm with bare hands. Unless there is a positive shock, the Robinsons are condemned to low standards of living. Suppose by repeated activities, the Robinsons gradually become more skillful in using their hands. Suppose the Robinsons are ardent disciples of the Böhm-Bawerk's (1889) doctrine that wisely chosen *roundabout* techniques of production are more productive and therefore devote the spared hours to generating new ideas, say, about forging a farm implement. Observe that, in the spirit of Böhm-Bawerk, when the farm implement is ready and employed, the productivity of the economy will increase. Finally, suppose that the Robinsons fend off diminishing returns by investing in the quality of the farm implement and the manner in which they organize their productive activities. With these accomplished, the Robinsonian economy is set on a path to sustained growth with the associated improvements in the general standard of living. Every time the Robinsons commit current resources to construct and/or improve the quality farm implements and the organization of the farm, productive capacity increases, and the general outlook of this rather closed economy improves.

In this version of the Robinsonian economy, the Robinsons cannot commit expected output to increasing the current productive capacity. This is an important limitation. It constrains how fast the Robinsons can increase productive capacity and the quality of their living standards. Moreover, it defines the nature of exploitable investment opportunities. For instance, any investment project that requires outlays beyond the current resource ambit of the Robinsons has to be discarded irrespective of the expected return.

Now, imagine instead that there is large number of other household economies with a wide range of current resource and investment opportunity profiles[1]. Then it is possible to devise a technology that allows the Robinsons to commit current as well as future resources to current investment. One such technology is financial intermediation which enables the Robinsons to pledge a fixed amount or a fraction of the expected output to creditor household economies in return for investment funding. By making it possible for the economies such as the Robinsons to pledge expected outputs to obtain current investment, financial intermediation can rev up

[1] In principles, what is required is not necessarily idle resources. It is sufficient to assume differences in the rate of returns such that resources could be redeployed from less profitable ventures to more profitable ones. Indeed, we could maintain that the resource and investment profile of all other economies are identical to the Robinsons, and adopt Freeman's (1986) assumption that there exists an investment opportunity with a superior return but requires a minimum outlays beyond the resource ambit of any individual economy.

growth across the household economies since it makes it possible for higher returns to be earned on investment (Greenwood & Jovanic 1990).

Among other things, the functionality and the depth of financial intermediation depends crucially on how secure the interests of creditor household economies are in the Robinsons' venture. The creditors need to be assured of their returns ex-post in order to finance the Robinsons ex-ante. We can imagine various degrees of incentive institutional arrangements which assure the creditors whilst at the same time making it worthwhile for the Robinsons to honor their obligations ex-post. These arrangements may include control structures that enable the creditors to *monitor* the Robinsons, informal rules of conduct – customs, traditions and norms – as well as formal rules relating to property rights, bankruptcy procedures, legal recourse and governance issues in general. The role of these institutional arrangements is not only limited to assuring creditors of return to their investment. They are also crucial in providing the Robinsons a stable and predictable investment climate.

1.2. The aim and focus of the thesis

The sketch outlined above implies that investment in productive capacity is inextricably linked to wealth creation. Moreover, the depth of financial flows and the quality of the institutional environment decisively influence both the rate of investment and the returns on investment. This thesis deals with the financing and the returns aspects of investment. It consists of an introductory chapter and three essays on different aspects of investment. The overarching aim is to contribute to the understanding of investment in the changing wealth of individuals, firms and nations.

The subject of investment has a long history in economic thought dating back to the birth of the discipline[2]. A large part of the scholarly attention of economists on the subject is devoted to understanding: Why do some economic agents invest more than others? And why are investments more productive in some contexts than others? Given the centrality of the subject in economic theory, one might think we have learnt all there is to be learnt about investment. Well, it appears, this is not the case. The subject continues to intrigue contemporary economists and policy makers alike. This is particularly so in the face of the increasing size, integration and complexities of the modern economy and investment activities with the associated separation of the capitalist from the entrepreneur, and ownership from management. Indeed, different dimensions of investment and its relation to the changing wealth are just emerging. This necessitates the need for constant stocktaking, re-evaluation and analyses in order to increase our understanding of both direct and indirect contributions of investment to economic activities and growth. This thesis seeks to make a contribution in this direction.

The first two essays in the thesis are motivated by the increasing inflow of remittances into the developing world and the importance of manufacturing growth in wealth creation. The first essay is an examination of the effect of remittance inflows from abroad on domestic investment outlays in developing countries. The study focuses on the moderating role of financial development and the prevailing institutional quality. It builds on previous studies about the role of external inflows, financial development and institutional quality in fostering domestic investment. The second essay is an offshoot of the first essay. It investigates whether remittance inflows spur manufacturing growth among a sample of remittance

[2] Indeed, the subject of investment has been with humanity even before the Economics emerged as a discipline (see McCloskey 2010, especially chapter 14 and the references therein to the Bible, Buddha and the Koran).

dependent economies. This essay relates to the theoretical and empirical literature on the Dutch disease, the financing-gap and the demand deficiency perspectives of external inflows into a small opened economy. It also relates to the literature on financial development and institutional economics. The third and final essay is built on the corporate governance literature concerning the monitoring role of large shareholders. It seeks to contribute to our current understanding regarding what drives the large shareholder to monitor the firm's decision-making in order to induce optimal return on investment. It examines the relevance of both extrinsic and intrinsic motives of large shareholders. The paper draws on diverse theoretical and empirical contributions in economics, corporate governance, family business, management and the social embeddedness literature.

1.3. Purpose and outline of the introduction to the thesis

The purpose of this introductory chapter is twofold. First, it seeks to provide a brief background to the research questions each of the subsequent chapters addressed in relation to the extant research. Second, it seeks to highlight and position the contribution of each essay in existing research. The remainder of this introductory chapter is organized as follows. Section 2 presents selected theories of investment behavior of the firms. It starts with the Neoclassical theory of investment in the spirit of Dale Jorgenson. This is followed by a presentation of the *q*-theories of investment and how they relate to the neoclassical theory of investment and the Tobin's *q*. In each case, the methodological issues pertaining to the empirical implementations are highlighted. Section 3 discusses how the quality of financial intermediation and institutional environment may impinge on the incentive as well as the ability of economic agents to invest optimally. The background to each chapter, the findings, discussions and the respective contributions to the relevant literature are presented in Section 4.

2. INVESTMENT THEORY

The theory of investment is rich and diverse in terms of perspectives and foci. To keep the discussion manageable, I limit the section to the neo-classical perspective as outlined by Irving Fisher (1930) and later formalized by Vernon Smith (1959) and by Dale Jorgenson (1963, 1967, 1971 & 1972), and the *q* theories of investment (Tobin 1969 and Mueller & Reardon 1993). Thereafter I discuss the implications of financial intermediation and the institutional setting for optimal investment.

2.1.Neoclassical Theory of Investment

The neoclassical theory of investment describes the optimal path of capital accumulation of a representative firm which seeks to maximize the net worth of its production and investment activities. The firm is assumed to be a price-taker in both input and output markets. At each point in time (t), the firm is assumed to employ homogenous units of labor (L_t) and capital (K_t) to produce a single output (Q_t). The set of technological possibilities of the firm is summarized in a production function of the form:

$$Q_t = F(K_t, L_t) \tag{1}$$

The production function (1) is assumed to be continuously differentiable with positive but diminishing marginal productivities and positive marginal rates of technical substitution. In

addition, the level of output at any point in time is constrained by the evolution of capital stock $\left(\dot{K}_t\right)$:

$$\dot{K}_t = I_t - \delta K_t \tag{2}$$

where δ is the constant proportional rate of physical depreciation, I_t represent investment in period t.

Within this framework, the theory of investment is essentially an optimization problem of the firm. According to Lutz (1945), the firm can be conceived as maximizing the internal rate of return, total profits or the rate of profit over cost. Jorgenson (1963) observes that the appropriate investment criteria should be consistent with utility maximization of households. He argues that the present value maximization is the only criterion consistent with utility maximization. It is on this ground that he claims that "Keynes' construction of demand function for investment must be dismissed as inconsistent with the neoclassical theory of optimal capital accumulation" (1967, p. 152). The present value of the firm is the integral of the discounted rate of net receipts:

$$V(0) = \int_0^{\infty} \left[p_t F\left(K_t, L_t, t\right) - w_t L_t - \psi_t I_t \right] \exp\left(-\int_0^t r_s ds \right) dt \tag{3}$$

where $\left(r_s\right)$ is the nominal discount rate. The purchase prices of investment, labor and output are ψ_t, w_t and p_t respectively. The firm's objective at time 0 is to choose investment (and labor employment) in order to maximize (3) subject to (2). The current value Hamiltonian, the corresponding first order conditions and the transversality condition associated with this optimization problem are:

$$H = \left[p_t F\left(K_t, L_t\right) - w_t L_t - \psi_t I_t \right] + \lambda_t \left[I_t - \delta K_t \right] \tag{4}$$

$$p_t F_L^{'}(K_t, L_t) = w_t \tag{5}$$

$$\lambda_t = \psi_t \tag{6}$$

$$\lambda_t \left[r_t + \delta - \dot{\lambda}_t / \lambda_t \right] = p_t F_K^{'}(K_t, L_t) \tag{7}$$

$$\lim_{t \to \infty} \lambda_t K_t \exp\left(-\int_0^t r_s ds \right) = 0 \tag{8}$$

Equation (4) is the current value Hamiltonian, and (5) is the marginal productivity condition for labor services. It states that at each point in time, the present value optimizing firm employs labor until the marginal revenue product of labor equals the wage rate. An analogue condition for investment is expressed in (6) where the purchase price of investment goods $\left(\psi_t\right)$ is equal to the shadow price $\left(\lambda_t\right)$ of constraint (2). Combined with the differential equation (7), equation (6) states that the present discounted value of additional future net worth associated with installing an additional unit of investment is equal to its marginal cost. In terms of Jorgenson's user cost of capital, the adjunct function (7) implies that, at optimum, the firm equates the marginal benefit of installing a unit of capital to the user cost of capital, at

each point in time. In the absence of taxes, the user cost of capital $c_t = \psi_t\left(r_t + \delta - \dot{\psi}_t / \psi_t\right)$ comprises the opportunity cost of investment $(\psi_t r_t)$, depreciation cost $(\psi_t \delta)$ and capital gains/losses $\left(\dot{\psi}_t\right)$. Equation (8) is the transversality condition. It ensures that the value of capital stock does not explode.

The first order conditions set in motion an iterative process which governs the optimal levels of output, labor employment and capital input as well as the level of investment and the corresponding shadow price of capital services. At the current fixed level of capital input, the optimal output and the level of labor are determined by the production function (1) and labor productivity condition (5). In turn, demand for capital stock is determined by the marginal productivity of capital condition implied by the adjunct function (7) and the given levels of output and labor. This iteration process suggests that the firm chooses the time path of output, labor and capital services as functions of the time path of output price (p_t), labor service cost (w_t) and the user cost of capital $\left(c_t = \psi_t\left(r_t + \delta - \dot{\psi}_t / \psi_t\right)\right)$, such that:

$$Y_t = Y(p_t, w_t, c_t) \tag{9}$$

$$L_t = L(p_t, w_t, c_t) \tag{10}$$

$$K_t = K(p_t, w_t, c_t) \tag{11}$$

Differentiating the demand for capital services equation (11) with respect to time and substituting the resultant expression into (2) yields the investment demand of the firm:

$$I_t = K_p^{'}\dot{p} + K_w^{'}\dot{w} + K_c^{'}\dot{c} + \delta K = I\left(p_t, w_t, c_t, \dot{p}, \dot{w}, \dot{c}\right) \tag{12}$$

Jorgenson's formalization, as outlined here, derived demand for investment goods as a function of the change in demand for capital with respect to changes in the level and the time rate of change in prices of output, labor and the user cost of capital services. The rate of interest does not enter (12) explicitly. It is implicit in the user cost of capital. Under the assumption that rate of change in the purchase price of investment $\left(\dot{\psi}_t\right)$ responds to changes in the rate of interest (r_t) such that $\partial\left(r_t - \dot{\psi}_t\right) / \partial t = 0$, investment demand is a decreasing function of the rate of interest:

$$I_r^{'} = K_c^{'} c_t < 0 \tag{13}$$

where $I_r^{'}$ is the first derivative of I with respect to r and $K_c^{'}$ is the first derivative of K with respect to c.

In sum, Jorgenson demonstrates that demand for investment can be derived within the framework of "…purely neoclassical considerations" (Jorgenson 1967, p. 150). A major attribute of his formulation, in contrast to Fisher (1930) and Keynes (1936), is that the inverse relationship between investment demand and the rate of interest in (13) is not obtained by *holding all other prices constant*: it accommodates the response of current-future price ratios

to changes in the rate of interest. In this respect, Jorgenson's formalization can be said to be logically consistent with the relationship between interest rates and the price structure[3].

2.2. Adjustment Costs and the Neoclassical Theory of Investment

The above formulation is subject to a number of criticisms however. One of the major concerns about Jorgenson's model is that the rate of investment is *internally* undefined. The model assumes that the production technology is unconstrained by adjustment costs. Capital inputs are homogenous regardless of vintage. Moreover, investment is perfectly reversible with no cost implications. As a corollary, the firm's short-run investment behavior coincides with the long-run investment behavior in response to changes in the market. Following a permanent change in prices, the firm can adjust capital stock instantly to the new long run level with no adjustment costs. However, costless and instantaneous adjustment to the desired stock of capital implies that the associated rate of change in investment per unit of time ranges from minus to plus infinity – a feature Jorgenson (1967, p. 133) himself describes as "naive, and unfounded". Unlike others (e.g. Haavelmo 1960 and Lerner 1944) who consider this feature of the neoclassical theory as indicative of non-existence of investment demand function, Jorgenson imposes a lag structure on the response of investment to changes in demand for capital.

Several studies have questioned the theoretical foundations of the lag structure (e.g. Abel 1980, Bean 1981, Chirinko 1993, Lucas 1967, Nerlove 1972). It appears Jorgenson recognizes the *ad hoc* nature of the lag structure in the original version of his model when he writes: "in the study of investment behavior, the most important current problem is the integration of time structure of the investment process into the representation of technology" (Jorgenson 1971, p. 1142).

In addressing the above concerns, Lucas (1967) introduces internal cost of adjustment[4] into the neoclassical investment theory. The adjustment cost is interpreted broadly to include disruptions to production, the installation itself, the cost of re-training staff and the inherent under capacity utilization of the newly installed capital during the learning period (Maccini, 1987). Measured in terms of forgone output, the adjustment cost is incorporated into the production function (1) such that:

$$Q_t = G\left[K_t, L_t, C_t\left(K_t, I_t\right)\right] = F\left(K_t, L_t\right) - C_t\left(K_t, I_t\right) \tag{14}$$

This formulation leaves equation (2) intact[5]. The adjustment cost term vanishes in the absence of new investment $\left(C(K_t, 0) = 0\right)$. However, the adjustment cost is assumed to increase at increasing rate with investment: $C_I^{'} > 0$ and $C_{II}^{'} > 0$. These assumptions capture the idea that for any given level of capital stock, faster rates of investment entails higher adjustment cost per unit of investment. The corresponding current value Hamiltonian, the associated first order and the transversality conditions are:

---

[3] See Alchian (1955) on the logical inconsistency of plotting the investment demand curve by varying the rate of interest whilst holding constant all other prices.

[4] Variants of the *q*-theory have emerged since Lucas (1967). See, among others, Abel (1980), Uzawa (1969) and Yoshikawa (1980). Moreover, Lucas (1967) is foreshadowed by Eisner & Strotz (1963) who discussed both external and internal costs of installation.

[5] A similar modelling strategy is adopted by Gould (1968) and Treadway (1969). An alternative strategy is due Uzawa (1969) and Hayashi (1982) where the adjustment cost is introduced via the constraint equation (1.2).

$$H = \left[p_t F\left(K_t, L_t\right) - p_t C_t\left(K_t, I_t\right)_t - w_t L_t - \psi_t I_t \right] + \lambda_t \left[I_t - \delta K_t \right] \tag{15}$$

$$p_t F_L^{'} = w_t \tag{16}$$

$$\lambda_t = p_t C_I^{'} + \psi_t \tag{17}$$

$$\lambda_t \left[r + \delta - \dot{\lambda} / \lambda_t \right] = p_t \left[F_K^{'} - C_K^{'} \right] \tag{18}$$

$$\lim_{t \to \infty} \lambda_t K_t \exp\left(-\int_0^t r_s ds \right) = 0 \tag{19}$$

Equation (15) is the current value Hamiltonian. Except for the introduction of the adjustment cost function, it is similar to equation (4) above. The marginal productivity condition for labor services is (16) which is identical to (5). And (19) is the transversaliy condition. Equations (17) and (18) imply that at optimum:

$$q_t = \frac{p_t \left[F_K^{'} - C_K^{'} \right]}{\psi_t + p_t C_I^{'}} = 1 \tag{20}$$

The numerator of equation (20) is the value of the marginal product of capital. The denominator is the "marginal user cost" of accumulating capital (Lucas 1967, p. 325). The marginal user cost of capital consists of the purchase price per unit of investment goods ψ_t and the value of output forgone per each unit of investment $p_t C_I^{'}$.

Equation (20) implies that investment demand reaches optimal if and only if $q_t = 1$. When q_t is greater than 1, the marginal benefit of investment exceeds the marginal cost of investment. Additional investment outlays will increase the firm's net worth. Conversely, q_t less than 1 indicates that the firm is better off without the latest investment project. It follows that to increase investment or not and at what rate depends on q_t:

$$I_t = I\left(q_t\right) \tag{21}$$

The distinguishing feature of this model, as in the case of other *q*-theories (see footnotes 4 and 5), is that it is prohibitively costly to adjust capital instantaneously to the optimal long-run level. To minimize the adjustment cost, the firm spreads investment over time such that the short- and long-run optimal responses are distinct. Accordingly, the incorporation of the adjustment cost function resolves the problem of undefined rate of investment inherent in the neoclassical formulation of investment theory.

Moreover, equation (21) dictates that all the relevant information the firm requires to make investment decision are summarized in q_t. Once q_t is known, it is straightforward to examine investment performance of the firm. There are empirical difficulties however. It requires data on the user cost of capital "which is notoriously difficult to collect" (Baddeley 2003, p. 100). More fundamentally, q_t includes *expectations* about future prices and marginal productivity of investment outlays which are not directly observable.

2.3.Expectations, Tobin's *q* and the Neoclassical Theory of Investment

An unresolved issue therefore concerns the empirical implementations of the neoclassical *q*-theory. Chirinko (1993) and Baddeley (2003) summarize a number of attempts in this direction. Several of such attempts (e.g. Abel 1983, Hayashi 1982, Mussa 1977 and Yoshikawa 1980) explore the relationship between the neoclassical *q* as expressed in equation (20) and the Tobin's *q* and how such relationship could yield empirical implementation of the neoclassical theory of investment.

The Tobin's *q* is based on the stock market valuation of productive capital and the cost of reproducing similar capital. Brainard & Tobin (1977, p. 238) observe that financial securities "... are essentially claims to the earnings thrown off by the real productive capital of the business". These claims reflect investors' expectations about the productivity of the firm and the associated risks. As investors revise their expectations about the future productivity upwards, the value of the claims increases accordingly and vice versa. Moreover, the security markets update expectations "almost" instantly. The market for the reproduction of capital goods, on the other hand, is sticky, partly because *rapid* production of capital goods is prohibitively expensive. This often creates discrepancies between the investors' valuation of capital and the actual cost of reproducing it. An increase in the securities market valuation relative to the current reproduction cost of similar capital goods induces new investment. The reverse is also true. Keynes (1936, p. 151) puts a similar view across when he writes

> *"... daily revaluations of Stock Exchange, though they are primarily made to facilitate transfer of old investments between one individual and another, inevitably exert a decisive influence on the rate of current investment. For there is no sense in building up a new enterprise at a cost greater than that at which a similar existing enterprise can be purchased..."*

Along this line of reasoning Brainard & Tobin (1968 & 1977, see also Tobin 1969 & 1978) postulate that the optimal rate of investment is an increasing function of the ratio of securities' market valuation of the firm MV_t to the replacement cost of its existing capital stock $\psi_t K_t$:

$$\text{Tobin q} = \frac{MV_t}{\psi_t K_t} \tag{22}$$

According to the proponents of the Tobin's *q*:

> *"Economic logic indicates that a normal equilibrium value for [Tobin's] q is 1 for reproducible assets which are in fact being reproduced, ... Values of [Tobin's] q above 1 should stimulate investment … and values below 1 discourages investment."* (Brainard & Tobin 1977, p. 238)

A major advantage of the Tobin's *q* theory is that it neither requires data on how expectations are formed nor the introduction of lag structures. Expectations are explicitly captured by the market valuations of the firm which is readily observable for publicly traded firms. What is absent in the Tobin's *q* exposition is the role of the production function. It is therefore not obvious that the optimal value of Tobin's *q* is consistent with the firm's optimization problem. A number of studies (e.g. Abel 1983, Hayashi 1982, Mussa 1977 & Yoshikawa 1980) explore the relationship between the *q* investment theory and the Tobin's *q*. They show that the Tobin's *q* can be derived from an optimization problem of the firm, which explicitly

incorporates adjustment costs. They do emphasize however that the Tobin's *q* is an average ratio – *average q*.

2.4. Tobin's Marginal q

In standard neoclassical models of investment, the optimal rate of investment is the rate that equates the marginal value of capital to the marginal "user" cost. Accordingly, the relevant measure of investment efficiency is the *marginal q* – the ratio of the net present value of investment to the associated cost of investment. In general, the Tobin's *q*, as an average measure, deviates from the marginal *q*. Hayashi (1982) shows that the Tobin's *q* equates the marginal *q* only under very restrictive assumptions. It requires for instance that the firm has no market power, and its technology exhibits constant returns to scale in both production and installation. These conditions are hardly met in the corporate world. For instance, in the presence of technological progress, Tobin's *q* underestimates marginal *q* for investment in capital goods with the latest vintage. In this case, the management might invest efficiently, yet record a Tobin's *q* less than 1. Conversely, the Tobin's *q* may overstate the marginal *q* for firms with monopolistic power and/or any other sources of diminishing return to scale. A potential draw back in such case is that suboptimal investments of the empire building character (Grabowski & Mueller 1972 and Jensen & Meckling 1976) could be erroneously labeled as efficient. In this regard, the Tobin's *q* is ill suited to examining how managerial investment decisions affect the value of the firm.

A marginal version of the Tobin's *q* is presented by Mueller & Reardon (1993)[6]. Unlike the Tobin's *q*, the (Tobin's) marginal *q* is the ratio of change in market value to the cost of the latest investment:

$$q_m = \frac{\partial(MV_t)}{\partial(\psi_t K_t)} \tag{23}$$

As in standard neoclassical models of investment efficiency, the optimal value of q_m is one (Hayashi 1982). Marginal *q* value greater than one suggests that the return on investment exceeds the associated cost of investment. It is an indication that the productive capacity could be increased further. Conversely, the marginal *q* less than 1 implies that the firm would have been better off if the latest investment was not made. A marginal *q* of less than one is a sign of overinvestment on the part of management (Gugler, Mueller & Yurtoglu 2004, Gugler & Yurtoglu 2003 and Mueller & Reardon1993) – a failure on the part of management to maximize firm value.

3. FINANCIAL DEVELOPMENT AND INSTITUTIONAL QUALITY

The investment theories outlined above imply that the net worth maximizing economic agents undertake investment projects in a Von Thünen (1826) fashion: investment projects with the highest returns are undertaken followed by those with high returns down to investment projects with marginal returns just sufficient enough to cover the cost of investment.

[6] Durnev, Morck & Yeung (2004) proposed fundamentally equivalent approach. See Berglund (2011) on the potential downward bias of marginal *q* estimates.

However, the depth of financial intermediation and the quality of the institutional environment may influence the wherewithal as well as the incentive to invest in this fashion.

For instance, an investment project with superior return may not be undertaken because it requires outlays in excess of the current resources under the control of the investor. Even if we make the heroic assumption that investment projects are homogeneous in terms of cost, financial constraints may limit investors to exploiting only a handful of these investment opportunities. Moreover, the time to maturity or the liquidity of the investment project and the associated risks do matter. As Diamond & Dybvig (1983) demonstrate, in a world of idiosyncratic risk, the investor can be reluctant to commit her wealth to an illiquid investment.

In principle, investors could overcome the non-convexity in project size, risk and illiquidity by pooling resource together. The challenge to the resource pooling regime is the inherent high cost of transaction, information gathering, analyzing, monitoring and evaluating the performance of each investment project. These costs can be magnified by duplication of efforts or free-rider problems (Diamond 1984) and thus undermining optimal investment along the lines suggested by the neoclassical investment theories. According to Schumpeter (1939), financial intermediation can reduce the costs associated with the resource pooling regime thereby facilitating investment. He observes that as an intermediary between borrowers and lenders,

> *"…. the banker must not only know what the transaction is which he is asked to finance and how it is likely to turn out but he must also know the customer, his business and even his private habits, and get … a clear picture of the situation." (Schumpeter 1939, p. 116).*

Recent literature largely lend support to Schumpeter's assertions. Diamond (1984) develops a model of financial intermediation based on monitoring cost. His analysis shows that financial intermediation minimizes the costs of monitoring the behavior of borrowers and intermediary managers. Bencivenga & Smith (1991) emphases the role of financial intermediaries in facilitating a switch from holding unproductive liquid assets to investment in productive illiquid assets. Similarly, Greenwood & Jovanovic (1990) underpin the role of financial development in gathering and analyzing the attributes of various investment projects thereby facilitating allocation of resources to investment projects with the highest returns. Their analysis reveals that financial development allows higher returns to be earned on investment. Similarly, several studies link financial underdevelopment to resource misallocation across the developing world. These suggest that increases in financial intermediation is an important way to inducing investment efficiency (Banerjee & Duflo 2005 and Jeong & Townsend 2007).

The new institutional economics literature attributes why some investors invest sub-optimally to the institutional setting. It suggests that formal rules, informal codes and their enforcement determine the incentive structure of economic agents and how resources are allocated (Baumol 1990, North 1990 & 1994 and Williamson 2000). Institutions that do not rein in on corruption, secure property rights, streamline government interventions and legal procedures, induce uncertainty and thereby stifles optimal investment (Roe & Siegel 2011).

To illustrate, consider a farm economy where property rights in terms of land use rights, land ownership rights or both are ill-defined. In particular, consider a farm economy which is prevalent along the fringes of urban areas across Sub-Saharan Africa where indigenes with no official land entitlements farm on state lands. The fringe-farmers are aware that the state will

eventually claim the land but there is uncertainty as to when the ejection will take place. As a result, the typical fringe-farmer underinvests particularly in irrigation projects and soil quality preservation practices. Wen & Zhang (1993) demonstrate a similar problem in rural China where land use rights are well defined but the ownership rights are ill-defined.

Moreover, poor institutional environment impinges on financial intermediation and hence optimal investment (Bauer 1954, Beck & Levine 2005, Besley 1995, De Soto 2000 and Roe & Siegel 2011). To continue with the land user and ownership rights example, Bauer (1954, p. 9) observes that rural land title rights in pre-independent Ghana and Nigeria are ill-defined and are therefore "unsatisfactory for loans". Similarly, De Soto (2000, p. 16) argues that "capitalism triumphs in the West and fails everywhere else" because the institutions that "… allows one to secure the interests of third parties … do not exist" elsewhere. He emphasis in particular the non-existence or ill-defined titles, deeds and statute of incorporation make the use of real estate, a parcel of land or an enterprise to secure loans to finance investment projects exceedingly impossible. In relate a study, La Porta, Lopez-de-Silanes, Shleifer & Vishny (1998) show that the extent of financial intermediation is strongly correlated with the extent to which a country's legal origin protects property rights. Similarly, Djankov, McLiesh & Shleifer (2007) find that property rights enhance the borrowers' ability to collateralize are significantly and positively correlated with financial development. On the determinants of property rights see Svensson (1998) or Roe & Siegel (2011).

The foregoing implies that when financial markets and institutions do not function sufficiently well, there will be increased uncertainty, unequal access to finance[7] and inefficient investment. The underdeveloped financial intermediation and slack institutional quality will therefore constraint the wherewithal to undertake optimal investment.

4. OUTLINE AND SUMMARY OF THE MAIN FINDINGS

This section presents the background and the main findings of each of the three papers. The papers are presented in the order they appear in the thesis: (i) *Impact of remittances on domestic investment: the role of institutional quality and financial Development*; (ii) *Do remittance inflows promote manufacturing growth?* and (iii) *Foundation control and investment performance: the role of intrinsic motivations*.

4.1. Impact of Remittances on Domestic Investment: The Role of Institutional Quality and Financial Development

A basic insight from the investment theories outlined above is that when the marginal return exceeds the cost of investment, it pays to increase productive capacity. In Arthur Lewis' (1954, p. 155) view, "the central fact of economic development is a rapid [increase in productive capacity]"[8]. However, increasing productive capacity requires commitment of resources which may not readily be available particularly in the context of developing

[7] In a survey of 13 developing countries, Banerjee and Duflo (2007) find that, with the exception of Indonesia (where there was a large expansion of government-sponsored microcredit), no more than 6 percent of the funds borrowed by the poor came from a formal source.

[8] Lewis (1954) originally focused on physical capital accumulation. See also Domar (1946), Harrod (1959), Rostow (1960) and Feinstein (2003). Several scholars are critical of the exclusive focus on physical capital accumulation. See for instance Easterly (2002) and McCloskey (2010).

countries. When people are poor, there is hardly any margin of income above subsistent level that can be committed to increasing productive capacity (Sachs 2005). It is along these lines of reasoning that international organizations such as the International Monetary Fund (IMF) and the World Bank are engaged in filling "the 'financing gap' with foreign aid which will make the required investment happen …" (Easterly 2002, p. 31). A similar view underpins recent admonitions of the developing world to provide liberal and conducive environment for foreign direct investment (Mudambi & Navara 2002, Phelps 2009 and Sethi, Guisinger, Ford & Phelan 2002). The idea is that with external inflows such as foreign aid and foreign direct investment, economic development can occur without levying upon the poor to finance the full cost of required investment.

A major source of external financial inflows into the developing world, which had not received much attention, is the increasing inflow of remittances to developing countries. These inflows are increasingly substantial as a share of GDP. According to the World Bank estimates, in 1995 the world's remittance inflows stood at 101 billion US$. By 2005, the World Bank reports that remittance inflows more than doubled to 263 billion US$ or 0.62% of the world's GDP. This is a substantial amount compared to the Official Development Assistance (ODA) which constitutes less than 0.24% of the world GDP. In terms of external inflows into the developing countries, Figure 1 indicates that since 1995, remittance inflows are second only to Foreign Direct Investment (FDI)[9].

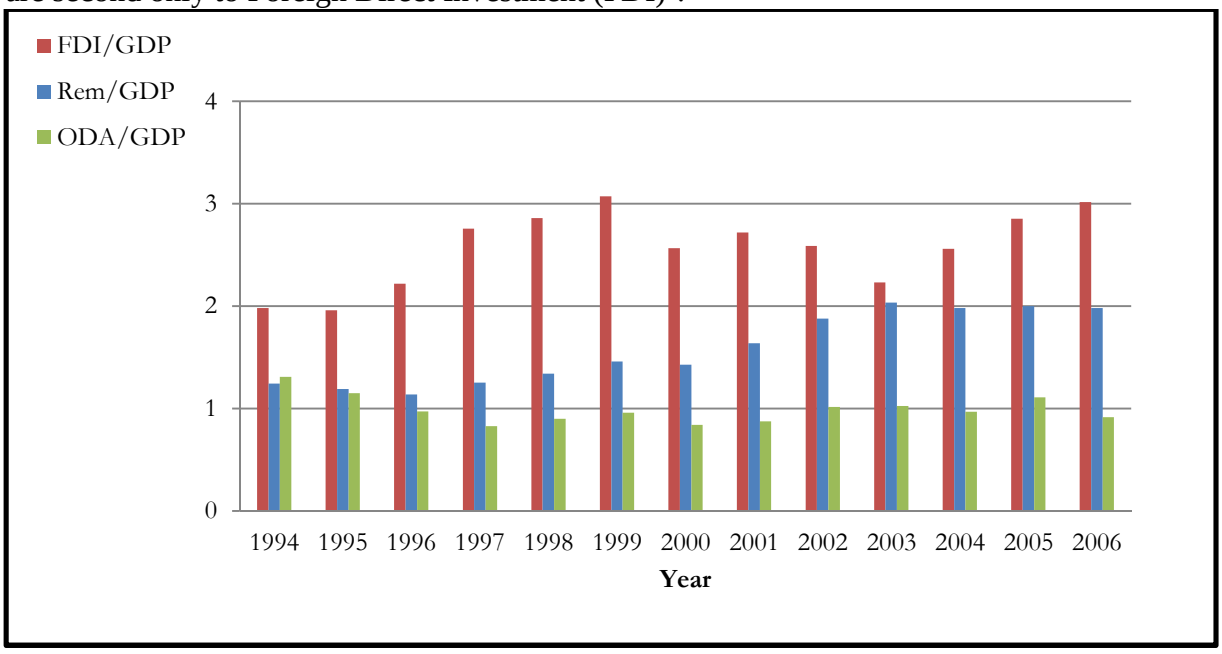


Figure 1: External Inflows as a Share of GDP in Low Income Countries (Data Source: WDI 2010)

One question that emerged recently following the increasing inflow of remittances to developing countries is whether remittances can relax the financial constraints faced by the receiving countries? Earlier studies (see Chami, Fullenkamp & Jahjah 2005 and IMF 2005) cast doubt on the role of remittances in easing the financing gap. The first paper in this thesis

[9] For the very poor nations, remittances have surpassed even FDI. Among the Least Developing Countries (LDCs), remittance inflows in 2005 are 5.4% of GDP whilst FDI stood at 2.7% of GDP in the same period.

argues that the level of institutional quality and the level of financial development in the home country are essential for the effectiveness of remittances in promoting investment and hence economic progress.

The paper contributes to the literature by examining the relationship between remittance inflows and investment expenditure, and the moderating effects of the prevailing institutional environment and the depth of financial intermediation. Hitherto, previous studies on the economic consequences of remittance inflows have neither focused on the investment effects of remittances nor examined the moderating effects of both the quality of institutions and financial intermediation in the remittances-investment nexus. However, the ease with which entrepreneurs and corporations could raise external funds varies with the degree of both institutional quality and financial development (Adamopoulos 2010, De Soto 2000, Easterly 2002 & 2006 and North 1990). Furthermore, recent studies suggest that, to a large extent, the failure of attempts to foster economic performance by promoting official development assistance and foreign direct investment are linked to poor institutional quality (Bevan, Estrin, & Meyer 2004, Mudambi & Navarra 2002 and Phelps 2009) and inadequate financial development (Alfaro, Chanda, Kalemli-Ozcan & Sayek 2010).

The main finding of this paper is that remittance inflows have a positive and significant impact on domestic investment but the magnitude varies inversely with both the institutional quality and the depth of financial intermediation. Specifically, the results indicate that the marginal impact of remittance inflows on investment under weak (lower quartile) institutional environment is about 40 per cent more than its impact under sound (upper quartile) institutional settings. Similarly, the marginal impact of remittances in financially underdeveloped settings is more than twice the marginal effects estimates of financially more developed economies. The findings are robust to alternative specifications such as static and dynamic panels estimators, split sample analyses, different measures of institutional quality and financial development, and control for other sources of external inflows (FDI and ODA).

At first glance, the finding that the impact of remittance inflows on investment varies inversely with institutional quality and the depth of financial intermediation appears counterintuitive. In countries where the financial market is fairly developed, remittance receiving households could conveniently put aside some of their remittance receipts in the banks which could be used to grant loans to the business sector. Furthermore, migrants can remit to their home countries in search of fair returns by taking advantage of the intermediation provided by the financial intermediaries. Institutional quality also makes a difference. Poor institutional quality of a receiving country increases the risk of expropriation and could thereby reduce remittances meant for investment purposes.

However, the literature on institutional economics suggests that poor institutional quality does not only fail to properly define the individual and collective constraints of the game (North 1990 and Williamson 2000) but most importantly, it creates perverse incentive systems which are inimical to the capitalist society (Baumol 1990, Easterly 2002 & 2006). A potential explanation of the findings that the impact of remittance varies inversely with institutional quality therefore is that weak institutions undermine formal checks on expropriation and thus makes *ex ante* commitments of entrepreneurs to secure the interest of impersonal investors less credible. In such a perverse settings, capital is “dead” (De Soto 2000). Hence funds needed to undertake investment are limited to self-finance, and whatever entrepreneurs could raise from family and friends. Under such circumstances financing constraints are more severe and thus increase the importance of remittances as a source of funding investments. In

the same vein, the observed substitutive relationship between financial development and remittances points to use of remittances for investment when the credit market is malfunctioning. In sum, results imply that remittance inflows are important source of investment finance particularly under institutional and financial settings where access to external finance is limited.

4.2.Do Remittance Inflows Promote Manufacturing Growth?

The second paper in this thesis is motivated by the increasing inflow of remittances into the least-developed economies and the importance of the manufacturing sector in the long run economic transformation of nations. It is a follow up of the first paper. According to the first paper, remittance inflows are associated with increases in domestic investment particularly under conditions of poor institutional quality and financial underdevelopment. This implies that in such economies, remittance inflows can be a vehicle for economic progress. However, increasing productive capacity (with remittance inflows) might not necessarily translate into long run economic progress if the installed capacity lay idle or is underutilized (see Wu 2012 and the references therein for a survey of the literature on capacity utilization). Hence, the aim of this paper is to investigate whether remittance inflows have the potential to induce long run economic transformation.

A number of studies show that industrialization is at the heart of the economic transformation for the past two centuries (Maddison 2005 & 2008, McCloskey 2010, Mokyr 1990 and Sachs 2005). In a recent survey, Johnson, Ostry & Subramanian (2010) observe that there is virtually no non-oil-exporting economy that had seen sustained economic growth without a sound manufacturing base. However a recent literature on the economic consequences of remittances inflows raises concern about the potential adverse effects of remittance inflows for the manufacturing sector (Acosta, Lartey & Mandelman 2009, Amuedo-Dotantes & Pozo 2004 and López, Molina & Bussolo 2007). Their main finding is that remittance inflows are associated with real exchange rate appreciation. Drawing on the Dutch disease literature (e.g., Corden & Neary 1982, Rodrik 2008 & Williamson 2009), they caution that "…workers' remittances have the potential to inflict economic costs on the [manufacturing] sector of receiving countries by reducing its international competitiveness" (Amuedo-Dotantes & Pozo 2004, p. 1417).

This paper contributes to the literature by directly examining the relationship between remittances and manufacturing growth. Previous studies infer the potential effect of remittances by examining the relationship between remittances and the real exchange rate. The current study extends the literature by directly investigating the impact of remittance inflows on manufacturing growth. The claim of the paper is that, important as it is, the reported remittance-induced real exchange rate appreciation is not a summary statistics of the effect of remittances on manufacturing growth. This is because there are several mechanisms through which remittances may impact on manufacturing growth. For instance, Fajnzylber & Lopez (2008) show that remittance receipt reduces absolute poverty and inequality and improve human capital indicators – indicators that are established determinants of manufacturing growth. Moreover, the extra demand occasioned by remittance inflows (Adams 2006) and the associated multiplier effects (Lucas 2005) are major sources of economic stimulus even for the manufacturing sector. Similarly, studies show that remittance inflows are positively associated with financial development (Aggarwal, Demirguc-Kunt, & Peria 2011) and domestic investment. In general the manufacturing sector is more capital intensive relative to non-manufacturing sector and therefore may benefit more from external

inflows such as remittances. The implication is whether remittance inflows accelerates or decelerate manufacturing growth is an empirical issue and should be investigated directly.

A consistent estimation of the impact of remittances on manufacturing growth requires exogenous variations in remittance inflows. However, the nature of the series on recorded remittance inflow is potentially fraught with endogeneity problems such as measurement error, simultaneity and reverse causality. Consequently, several steps are taken to address these potential endogeneity problems. In the first set of regressions, country and industry specific characteristics as well as year dummies are controlled for in order to minimize the potential omitted variable bias. In the second set of regressions, I employ the economic conditions of the host (remittance-source) countries as instruments to generate exogenous variations in remittance inflows into the developing world. The argument is that the rate of unemployment and the income levels in the host country determine how much migrants could remit to their home countries, ceteris paribus. They are therefore relevant instruments for remittance inflows. In addition, these instruments are valid in the sense that they are unlikely to be driven directly by the manufacturing growth rate of remittance dependent economies and/or they are unlikely to impact on manufacturing growth of the remittance receiving countries directly. This methodology is related to the empirical strategies adopted by Barajas, Chami, Fullenkamp, Gapen & Montiel (2009) and Aggarwal et al. (2011). One of the main advantages of this methodology is that it makes a causal interpretation of the relationship between remittance inflows and manufacturing growth more credible.

Contrary to previous studies which infer that remittance inflows could be inimical to the manufacturing sector (Acosta et al. 2009, Amuedo-Dotantes & Pozo 2004, López et al. 2007, and Lartey et al. 2008), a direct examination of the relationship between remittance inflows and manufacturing growth reveals that remittance inflows spurs manufacturing growth in a sample of remittance dependent economics. This evidence is robust to industry and year specific effects, a range of country-level controls and various econometric techniques. The finding lends support to the claim of the paper that remittance induces exchange rate appreciation is not a summary statistics of the effect of remittances inflows on the manufacturing sector.

The existing literature suggests that remittance inflows spur economic growth (Catrinescu, Leon-Ledesma, Piracha, & Quillin 2009, Giuliano, & Ruiz-Arranz 2009, Pradhan, Upadhyay & Upadhyaya 2008) and thereby help to alleviate poverty (Acosta, Calderón, Fajnzylber & Lopez 2008), and reduce income volatility (Amuedo-Dorantes & Pozo 2011). In view of the growth-pulling properties of manufacturing growth (Kaldor 1967, Wells & Thirlwall 2003), this paper implies that one of the channels through which remittance inflows drive growth is manufacturing growth. The paper thus complements and expands on the previous studies that seek to understand the channels through remittance inflows may drive economic growth.

By way of future research, there is a need to understand whether the reported positive effect of remittance on manufacturing growth is heterogeneous across sub-industrial sectors. For instance, developing countries tend to have comparative advantage in labor intensive industries. It will therefore be useful to investigate whether remittance inflows give further boost to labor intensive industries relative to non-labor intensive industries. Such a research could inform policy regimes aimed at optimizing the net benefits of remittances.

4.3. Foundation Control and Investment Performance: The Role of Intrinsic Motivations

The third paper is grounded in the widespread view among economists that agency relationships are laden with conflicts of interest and that in the pursue of self-interest, agents may in fact act in ways that hurt the interest of the principal. This view dates back to Adam Smith (1776). A classic example of agency relations that has received much attention both in academic and policy circles is the increasing separation of corporate ownership and control, where professional managers exercise control on behave of the shareholders. Following Berle & Means (1932), studies have been exploring mechanisms which could minimize the agency problem and thereby protect the interest of shareholders. A strand of this literature stresses the importance of shareholders *monitoring* the firm's decision-making. When shareholders monitor the firm's decision-making, they are best placed to reject investments proposals of the empire building character, inefficient managerial-specific investment or remove ineptitude management altogether (Tirole 2001).

However the literature also points out that despite the apparent collective gains from monitoring the firm, the typical small shareholder would rather free ride on the monitoring efforts of other shareholders. As a result, managerial decision-making in firms populated by a large number of small shareholders are hardly monitored. Shleifer & Vishny (1986, p.462) present a model which demonstrates that because of the large financial stake in the firm, large shareholders find it worthwhile "… to absorb the costs of watching the management". There is now a large volume of studies which show that firms with at least one large shareholder performs significantly better relative to firms with a large number of small shareholders (Burkart, Groom & Panunzi 1997, Cronqvist & Fahlenbrach 2009, Donker, Santen & Zahir 2009, Holderness 2003 and Tirole 2006).

At the conceptual level, this paper contributes to the discourse on what drives the large shareholder to monitor managerial performance. Unlike previous studies which focus primarily on the extrinsic motives of the large shareholder, this paper argues that both extrinsic and intrinsic aspects of firm ownership and control drive the large shareholder to monitor management. This argument is anchored on the view that economic behavior is driven by extrinsic as well as intrinsic considerations (Ariely 2010, Arkerlof & Kranton 2005, Basu 2011, Becker 1992, McCloskey 2010 and Sen 1977 & 1985). And that the pride of creation and ownership runs deep in human beings (Ariely 2010 p.84).

A related literature studies show that managers (Miller & Le Breton-Miller 2006) and employees (Vallejo 2009) who are emotionally and socially attached to the firm do not only act upon extrinsic motives but also upon intrinsic motives. Intrinsic aspects of firm ownership and control are examined extensively in the family business and the management literature (e.g., Allen & Meyer 1990, Davis, Schoorman & Donaldson 1997, Gómez-Mejia, Haynes, Núñez-Nickel, Jacobson and Moyano-Fuentes 2007, Le Breton-Miller & Miller 2009, Sharma & Irving 2005 and Zellweger & Astrachan 2008). The paper focuses on the intrinsic motives of large shareholders with a particular reference to corporate owning foundations.

These corporate owning foundations[10] are special type of large shareholders in the sense that, unlike other large shareholders, they do not have residual claimants (Thomsen 1999). The non-distributive constraints which govern foundations largely separate the financial affairs of

[10] In terminology of Thomsen (1996) they are Industrial foundations.

the foundation from those of the internal agents of the foundation. As a result, the personal financial incentives to monitor management is largely absence. This implies that if personal financial interests are the sole consideration of large shareholders, the management of foundation-controlled firms will be inadequately monitored as though there are no large shareholders. As a result, the investment performance of foundation-controlled firms should be similar to firms without the a large shareholder. On the contrary, if the claim of this paper is valid, the internal agents of the foundation will still find it worthwhile to monitor managerial performance despite the apparent lack of large personal financial stake in the firm.

The empirical section of the paper examines investment performance of foundation-controlled, family-controlled, institution-controlled and dispersedly-owned firms using an unbalanced panel of 182 firms listed on the Stockholm Stock Exchange (OMX) during 1999-2005. The empirical tests are conducted using Mueller and Reardon's (1993) marginal *q* methodology. The empirical analysis indicates that the typical firm in the sample over invests, but the extent of overinvestment is significantly lower in firms with at least one large shareholder. More importantly, the results suggest that even though foundations lack the residual claimants and hence the personal financial interest, they are as efficient as other large shareholders in curbing managerial opportunism. This finding lends empirical support to the claim of the paper that large shareholders are actuated by both intrinsic and extrinsic motives to minimize managerial opportunism and inefficiency.

A possible competing explanation the empirical results relates to alternative mechanisms that constraint managerial discretion. For example, Fama (1980) posits that pressure from the managerial labor market disciplines management to act in the interest of residual claimants. He argues that managers will undertake efficient investment to enhance their chances of promotion in the firm and/or improve their chances of more attractive offers from other firms. However, Mueller (2009) argues that the discipline of a competitive market for managers is unlikely to resolve the potential agency problems with respect to top managers of large firms. In any case, if the market for managerial labor mechanism is significant, why is it that firms with at least one large shareholder outperform dispersedly-owned firms? It appears even if the market for managerial labor mechanism is at play, it is does not eliminate the agency problem and the productive supervisory role of the large shareholder.

A related alternative mechanism is market for corporate control. This view postulates that the threat of takeovers by outsiders and the subsequent loss of job is a potent curb on the agency problem. This view suggests that managers are more reluctant to engage in self-serving actions that reduces firm value and thereby increase the probability of takeovers (Manne 1965 and Scharfstein 1988). A related view is due Grossman & Hart (1980). They observe that the threat of takeover is virtually absent in dispersedly-owned firms because of free rider problems. One may therefore claim that it is the absence of takeover threats (rather than the monitoring role of the large shareholder) in dispersedly-owned firms that explain their relative underperformance. There might be some truth in this view particularly with regards to large institutional shareholders. However anecdotal evidence suggests that the threat of takeovers is virtually absent in respect of foundation-controlled firms. Not only do these foundations tend to have long terms views, they effectively preclude takeovers. Take the case of the Trelleborg AB. In keeping with the will of the founders, Henry and Gerda Dunker, the two foundations control not less than 55 percent of the voting rights[11]. Thomsen (1996, p. 212) cites the case of the Carlsberg foundation which "must continue to own more than 51 percent" right in the Carlsberg. Clearly, without the foundation replacing the incumbent management, it is difficult

[11] Trelleborg Home Page, Excerpts from the Trelleborg Anniversary book.

to see how the threat of hostile takeover will discipline the management of foundation-controlled.

A potential source of bias in the empirical findings relates to (external) financial constraints. The marginal *q* methodology shares the standard assumption that the representative firm invests in *all* profitable projects (Hayashi, 1982). Assuming the charters governing some of the foundations to control not less than a certain percentage of the shares/votes restrict the firm's ability to raise additional external funds, the foundation-controlled firm could be forced to limit their investment outlays to those with the very best prospects. This possibility could give an erroneous impression that foundation-controlled firms outperform dispersedly-owned firms. However, several studies show that financially constraint firms tend to accumulate more cash (see Denis & Sibilkov 2010 for a recent review). It appears therefore that even though internal and external capital are not perfect substitutes, foundation-controlled firms are not less able to exploit investment opportunities than widely held firms are. Hence, financial constraint is unlikely to bias results substantially.

One limitation of this paper is that it focuses exclusively on intrinsic incentives of those who run the affairs of the foundation to monitor. Implicitly, it assumes that the management of foundation-controlled firms share similar characteristic with all other management teams. In relation to family-controlled firms, Miller and Le Breton-Miller (2006, p. 74) argue that managers who are emotionally linked to the firm, often "… feel motivated to do their best for the owning family and the organization". An important area for further research therefore is to examine the relative disposition of the management of foundation-controlled firms to act in the interest of the firm.

5. REFERENCES

Abel, A.B. (1980), "Empirical Investment Equations: An Integrative Framework", *Carnegie-Rochester Conference Series on Public Policy*, 12(1), 39-91.

Acosta, P., C. Calderón, P. Fajnzylber, & H. Lopez (2008), "What is the Impact of International Remittances on Poverty and Inequality in Latin America?" *World Development*, 36(1), 89-114.

Acosta, A.P., E.K.K. Lartey & F.S. Mandelman (2009), "Remittances and the Dutch Disease", *Journal of International Economics* 79(1), 102-116.

Adamopoulos, A. (2010), "The Relationship between Credit Market Development and Economic Growth", *American Journal of Applied Sciences*, 7 (4), 518-526.

Adams, H.R. Jr. (2006), "International Remittances and the Household: Analysis and Review of Global Evidence", *Journal of African Economies*, 15(suppl. 2), 396-425.

Aggarwal, R., A. Demirguc-Kunt & M.S. Martinez-Peria (2011), "Do Workers' Remittances Promote Financial Development?" *Journal of Development Economics*, 91(2), 255-264.

Alchian, A.A. (1955), "The Rate of Interest, Fisher's Rate of Return over Costs and Keynes' Internal Rate of Return", *The American Economic Review*, 45 (5), 938-943.

Alfaro, L., A. Chanda, S. Kalemli-Ozcan & S. Sayek (2010) "Does Foreign Direct Investment Promote Growth? Exploring the Role of Financial Markets on linkages", *Journal of Development Economics*, 91(2), 242-256.

Akerlof, G. A. & E. R. Kranton (2005), "Identity and the Economics of Organizations", *Journal of Economic Perspective*, 19(1), 9-32.

Allen, J.N. & P.J. Meyer (1990), "The Measurement and Antecedents of Affective, Continuance and Normative Commitment to the Organization", *Journal of Occupational Psychology*, 63(1), 1-18.

Amuedo-Dorantes, C. & S. Pozo (2011), "Remittances and Income Smoothing", *American Economic Review*, 101(3), 582–587.

Amuedo-Dorantes, C. & S. Pozo (2004), "Workers' Remittances and the Real Exchange Rate: A Paradox of Gifts", *World Development*, 32(8), 1407-1417.

Ariely, D. (2010), *The Upside of Irrationality: The Unexpected Benefits of Defying Logic at Work and at Home*, Harper Collins Publishers, New York.

Baddeley, C.M. (2003), *Investment: Theories and Analysis*, Palgrave Macmillan, New York.

Banerjee, A.V. & E. Duflo (2007), "The Economic Lives of the Poor", *Journal of Economic Perspectives*, 21(1), 141–168.

Banerjee, A.V. & E. Duflo (2005), "Growth Theory through the Lens of Development Economics," in Aghion, P. & S.N. Durlauf (eds.), *Handbook of Economic Growth*, (Vol. 1A, Ch. 7), Elsevier, Amsterdam, The Netherlands.

Barajas, A., R. Chami, C. Fullenkamp, M. Gapen & P. Montiel (2009), "Do Workers' Remittances Promote Economic Growth?" *IMF Working Paper*, WP/09/153, IMF.

Basu, K. (2011), *Beyond the Invisible Hand: Groundwork for a New Economics*, Princeton University Press, Princeton.

Bauer, P. (1954), *West African Trade*, Cambridge University Press, Cambridge.

Baumol, W. (1990), "Entrepreneurship: Productive, Unproductive, and Destructive" *The Journal of Political Economy*, 98(5), 893-921.

Bean, C.R. (1981), "An Econometric Model of Manufacturing Investment in the UK", *Economics Journal*, Vol. 91(361), 106-121.

Beck, T. & R. Levine (2005), "Legal Institutions and Financial Development", in Claude Ménard, C. & M. M. Shirley (eds), *Handbook of the New Institutional Economics*, (Ch. 8), Pringer, Dordrecht, The Netherlands.

Becker, G.S. (1992), *The Economic Way of Looking at Life*. Nobel Lecture, Stockholm.

Bencivenga, V.R. & B.D. Smith (1991), "Financial Intermediation and Endogenous Growth", *The Review of Economic Studies*, 58(2),195-209.

Berglund, T. (2011), "The Elusive Marginal *q*," *Applied Financial Economics*, 21(20), 1489-1493.

Berle , A.A. & G.C. Means (1932), *The Modern Corporation and Private Property*, Macmillan, New York.

Besley, T. (1995), "Property Rights and Investment Incentives: Theory and Evidence from Ghana," *Journal of Political Economy*, 103(5), 903-937.

Bevan, A., S. Estrin & K. Meyer (2004), "Foreign Investment Location and Institutional Development in Transition Economies", *International Business Review*, 13(1), 43-64.

Brainard, W.C. & J. Tobin (1977), "Asset Markets and the Cost of Capital", in Balassa, B. & R. Nelson (eds.) *Economic Progress, Private Values and Public Policy*, (235-62) North Holland Pub. Co., Amsterdam.

Brainard, C.W. & J. Tobin (1968), "Pitfalls in Financial Modeling," *American Economic Review*, 58(2), 99-122.

Burkart, M., D. Groom, & F. Panunzi (1997), "Large Shareholders, Monitoring, and the Value of the Firm", *The Quarterly Journal of Economics*, 112(3), 693-728.

Böhm-Bawerk, E. V. (1889), *The Positive Theory of Capital*, (1923 reprint of 1891 Smart translation), Stechert, New York.

Catrinescu, N., M. Leon-Ledesma, M. Piracha & B. Quillin (2009), "Remittances, Institutions, and Economic Growth", *World Development*, 37(1), 81– 92.

Chami R., C. Fullenkamp & S. Jahjah (2005), "Are Immigrant Remittance Flows a Source of Capital for Development?" IMF Staff Papers, 52, 55-81.

Chirinko, S.R. (1993), "Business Fixed Investment Spending: Modeling Strategies, Empirical Results and Policy Implications", *Journal of Economic Literature*, 31(4), 1875-1911.

Corden, W.M. & P.J. Neary (1982), "Booming Sector and De-Industrialization in a Small Open Economy", *The Economic Journal*, 92(368), 825-848.

Cronqvist, H. & R. Fahlenbrach (2009), "Large Shareholders and Corporate Policies", *The Review of Financial Studies*, 22(10), 3941-3976.

Davis, J.H., Schoorman, D. F., & Donaldson L. (1997), "Toward a Stewardship Theory of Management", *Academy of Management Review*, 22(1), 20-47.

De Soto, H. (2000), *The Mystery of Capitalism: Why Capitalism Triumphs in the West and Fails Everywhere Else*, Basic Books, New York.

Denis, D.J. & V. Sibilkov (2010), "Financial Constraints, Investment, and the Value of Cash Holdings", *Review of Financial Studies*, 23(1), 247-269.

Diamond, D.W. (1984), "Financial Intermediation and Delegated Monitoring", *Review of Economic Studies*, 51(166), 393-414.

Diamond, D.W. & P.H. Dybvig (1983), "Bank Runs, Deposit Insurance, and Liquidity", *Journal of Political Economy*, 91(3), 401-419.

Djankov, S., C. McLiesh & A. Shleifer (2007), "Private Credit in 129 Countries" *Journal of Financial Economics*, 84(2), 299-329.

Domar, D.E. (1946), "Capital Expansion, Rate of Growth, and Employment", *Econometrica*, 14(2), 137-147.

Donker, H., B. Santen & S. Zahir (2009), "Ownership Structure and the Likelihood of Financial Distress in the Netherlands", *Applied Financial Economics*, 19(21), 1687–1696.

Durnev, A., R. Morck, & B.Yeung (2004), "Value-Enhancing Capital Budgeting and Firm-Specific Stock Return Variation", *The Journal of Finance*, 59(1), 65–105.

Easterly, W. (2006), *The Whiteman's Burden*, Oxford University Press, Oxford.

Easterly, W. (2002), *The Elusive Quest for Growth*, The MIT Press, Cambridge.

Eisner, R. & R.H. Strotz (1963), "Determinants of Business Investment", in *Impacts of Monetary Policy*, Prentice-Hall, Englewood Cliffs, New Jersey.

Fama, E.F. (1980), "Agency Problems and the Theory of the Firm", *Journal of Political Economy*, 88(2), 288-307.

Fajnzylber, P. & J.H. López (2008), "The Development Impact of Remittances in Latin America", in Fajnzylber P. & J. H. López (eds), *Remittances and Development*, (Ch. 1) World Bank, Washington DC.

Feinstein, C. (2003), "National Income Accounts: Investment and Savings" in Morkyr (ed.) *The Oxford Encyclopedia of Economic History*, (Vol. 4, 41-48), Oxford University Press, Oxford.

Fisher, I. (1930), *The Theory of Interest*, Macmillan, New York.

Freeman, S. (1986), "Inside Money, Monetary Contractions, and Welfare," *Canadian Journal of Economics*, 19(1), 87-98.

Giuliano, P., & M. Ruiz-Arranz (2009), "Remittances, Financial Development, and Growth", *Journal of Development Economics*, 90(1), 144–152.

Gould, J.P. (1968), "Adjustment Costs in the Theory of Investment in the Firm", *Review of Economic Studies*, 35(1), 47-55.

Grabowski, H.G. & D. Mueller (1972), "Managerial and Stockholder Welfare Models of Firm Expenditure", *Review of Economics and Statistics*, 54(1), 9-24.

Greenwood, J. & B. Jovanovic (1990), "Financial Development, Growth, and the Distribution of Income", *The Journal of Political Economy*, 98(5), 1076-1107.

Grossman, S.J. & O.D. Hart (1980), "Takeover bids, the Free-rider Problem, and the Theory of the Corporation", *Bell Journal of Economics*, 11(1), 42-64.

Gugler, K., D.C. Mueller & B.B. Yurtoglu (2004), "Corporate Governance and Returns on Investment", *Journal of Law and Economics*, 47(2), 589-633.

Gugler, K., & B.B. Yurtoglu (2003), "Average *q*, Marginal *q*, and the Relation between Ownership and Performance," *Economics Letters*, 78(3): 379-383.

Gómez-Mejía, R. L., T.K. Haynes, M. Núñez-Nickel, J.L.K. Jacobson & J. Moyano-Fuentes (2007), "Socioemotional Wealth and Business Risks in Family-controlled Firms: Evidence from Spanish Olive Oil Mills", *Administrative Science Quarterly*, 52(1), 106-137.

Haavelmo, T. (1960), *A Study in the Theory of Investment*, University of Chicago Press, Chicago.

Harrod, R.F. (1959), “Domar and Dynamic Economics”, *The Economic Journal*, 69(275), 451-464.

Hayashi, F. (1982), “Tobin's Marginal *q* and Average *q*: A Neoclassical Interpretation”, *Econometrica*, 50(1), 213-224.

Holderness, C.G. (2003), “A Survey of Blockholders and Corporate Control”, *Economic Policy Review* 9(1), 51-64.

IMF (2005), *World Economic Outlook: Globalization and External Imbalances*, International Monetary Fund, (April), Washington DC.

Jensen, M.C. & W. Meckling, (1976), ”Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure”, *Journal of Financial Economics*, 3(4), 305–360.

Jeong H. & R.M. Townsend (2007), “Sources of TFP Growth: Occupational Choice and Financial Deepening”, *Economic Theory*, 32(1), 179–221.

Johnson, S., J.D. Ostry & A. Subramanian (2010), “Perspectives for Africa: Benchmarking the Constraints”, *IMF Staff Papers*, 57(1), 119-171.

Jorgenson, D.W. (1972), “Investment Behavior and the Production Function”, *Bell Journal of Economics*, 3(1), 220-225.

Jorgenson, D.W. (1971), “Econometric Studies of Investment Behavior: A Survey”, *Journal of Economic Literature*, 9(4), 1111-1147.

Jorgenson, D.W. (1967), “The Theory of Firm Behaviour,” in Ferber, R. (ed.) *Determinants of Investment Behaviour*, Universities National Bureau Conference Series, 18. Columbia University Press for NBER, New York.

Jorgenson, D.W. (1963), “Capital Theory and Investment Behavior,” *American Economic Review*, 53(2), 247-259.

Kaldor, N. (1967), *Strategic Factors in Economic Development*, Ithaca, New York.

Keynes, J.M. (1936), *The General Theory of Employment, Interest and Money*, Macmillan, London.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer & R. Vishny (1998), “Law and Finance”, *Journal of Political Economy*, 106(6), 1113-1155.

Lartey, E.K.K., F.S. Mandelman & P.A. Acosta (2008), “Remittances, Exchange Rate Regimes, and the Dutch Disease: A Panel Data Analysis”, *FRB of Atlanta Working Paper No. 2008-12*.

Lerner, A.P. (1944), *The Economics of Control*, Macmillan, London.

Lewis, W.A. (1954), "Economic Development with Unlimited Supplies of Labour", *The Manchester School*, 22(2), 139–191.

López, H., L. Molina & M. Bussolo (2007), "Remittances and the Real Exchange Rate", *World Bank Policy Research Working Paper* 4213, Washington: D.C.

Lucas, R.E.B. (2005), *International Migration and Economic Development*, Edward Elgar, Cheltenham, UK.

Lucas, R.E.B. (1967), "Adjustment Costs and the Theory of Supply", *The Journal of Political Economy*, 75 (4) 321-334.

Lutz, F.A. (1945), "The Criterion of Maximum Profits in the Theory of Investment", *The Quarterly Journal of Economics*, 60(1), 56-77.

Maddison, A. (2008), "Share of the Rich and the Rest in the World Economy: Income Divergence between Nations, 1820-2030", *Asian Economic Policy Review*, 3(1) 67-82.

Maddison, A. (2005), "Measuring and Interpreting World Economic Performance 1500-2001", *Review of Income and Wealth*, 51(1), 1-35.

Manne, H. (1965), "Mergers and the Market for Corporate Control, *Journal of Political Economy*, 73(2), 110-120.

McCloskey, N.D. (2010), *Bourgeois Dignity: Why Economics can't Explain the Modern World*, The University of Chicago Press, Chicago.

Miller, D., & I. Le Breton-Miller (2006), "Family Governance and Firm Performance: Agency, Stewardship and Capabilities", *Family Business Review*, 19(1), 73-87.

Mokyr, J. (1990), *The Lever of Riches: Technological Creativity and Economic Progress*, Oxford University Press, Oxford.

Mudambi, R. & R. Navarra (2002), "Institutions and International Business: A Theoretical Overview", *International Business Review*, 11(6), 635-646.

Mueller, D. & E.A. Reardon (1993), "Rates of Return on Corporate Investment," *Southern Economic Journal*, 60(2), 430-453.

Mueller, D.C. (2009), "The Corporation: An Economic Enigma", in P.-O. Bjuggren & D.C. Mueller (eds.) *The Modern Firm, Corporate Governance and Investment*, Edward Elgar Publishing, Cheltenham, UK.

Mussa, M.L. (1977), "External and Internal Adjustment Costs and the Theory of Aggregate and Firm Investment", *Economica*, 44(174), 163-178.

Nerlove, M. (1972), "Lags in Economic Behaviour", *Econometrica*, 40(2), 221-251.

North D.C. (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge.

Phelps, N.A. (2009), "Investment Promotion", in R. Kitchin & N. Thrift (eds.), *International Encyclopedia of Human Geography*, (*585-589)* Elsevier, Oxford.

Pradhan, G., M. Upadhyay, & K. Upadhyaya (2008), "Remittances and Economic Growth in Developing Countries", *European Journal of Development Research*, 20(3), 497–506.

Rodrik, D. (2008) "The Real Exchange Rate and Economic Growth", *Brooking Papers on Economic Activity*, 2, 365-412.

Roe, M.J. & J.I. Siegel (2011), "Political Instability: Effects on Financial Development, Roots in the Severity of Economic Inequality", *Journal of Comparative Economics*, 39(3), 279–309.

Rostow, W.W. (1960), *The Stages of Economic Growth: A Non-Communist Manifesto*, Cambridge University Press, New York.

Sachs, J. (2005), *The End of Poverty: Economic Possibilities for Our Time*, Penguin Books, New York.

Sharma, P. & G.P. Irving (2005), "Four Bases of Business Successor Commitment: Antecedents and Consequences", *Entrepreneurship Theory and Practice*, 29(1), 13-33.

Sen A.K. (1985), "Goal, Commitment, and Identity", *Journal of Law, Economics, and Organization*, 1(2), 341-355.

Sen A.K. (1977), "Rational Fools: A Critique of the Behavioral Foundations of Economic Theory", *Philosophy and Public Affairs*, 6(4), 317-344.

Sethi, D., S. Guisinger, D.L. Ford Jr. & S.E. Phelan (2002), "Seeking Greener Pastures: A Theoretical and Empirical Investigation into the Changing Trend of Foreign Direct Investment Flows in Response to Institutional and Strategic Factors", *International Business Review*, 11 (6), 685–705.

Shleifer, A., & R.W. Vishny (1986), "Large Shareholders and Corporate Control", *Journal of Political Economy*, 94(3), 461-488.

Schumpeter, J.A. (1939), *Business Cycles*, McGraw-Hill, New York.

Smith, A. (1853), *The Theory of Moral Sentiments*, Henry G. Bohn, London, (Original work published 1759).

Smith, Vernon (1959), "The Theory of Investment and Production", *The Quarterly Journal of Economics*, 73(1), 61-87.

Svensson, J. (1998), "Investment, Property Rights and Political Instability: Theory and Evidence", *European Economic Review*, 42(7), 1317-1341.

Thomsen, S. (1999), "Corporate Ownership by Industrial Foundations", *The European Journal of Law and Economics*, 7(2), 117-136.

Thomsen, S. (1996), "Foundation Ownership and Economic Performance", *Corporate Governance*, 4(4), 212-221.

Tirole, J. (2006), *The Theory of Corporate Finance*, Princeton University Press, Princeton.

Tirole, J. (2001), "Corporate Governance", *Econometrica* , 69(1), 1-35.

Tobin, J. (1978), "A Proposal for International Monetary Reform", *Eastern Economic Journal*, 4(3-4), 153-159.

Tobin, J. (1969), "A General Equilibrium Approach to Monetary Theory", *Journal of Money, Credit and Banking*, 1(1), 15-29.

Treadway, A.B. (1969), "On Rational Entrepreneurial Behavior and the Demand for Investment," *Review of Economic Studies*, 36(106), 227-240.

Uzawa, H. (1969), "Time Preference and the Penrose Effect in a Two-Class Model of Economic Growth", *Journal of Political Economy*, 77(4), 628-652.

Von Thünen, H. (1826) *Der Isolierte Staat*, Perthes, Hamburg.

Vallejo, M.C. (2009), "The Effect of Commitment of Non-family Employees of Family Firms from the Perspective of Stewardship Theory, *Journal of Business Ethics*, 87(3), 379-390.

Wells, H. & T.A. Thirlwall (2003), "Testing Kaldor's Growth Laws across the Countries of Africa", *African Development Review*, 15(2-3), 89-105.

Wen, G.J. & C. Zhang (1993), "Investment Under Risk in Property Rights", *China Economic Review*, 4(1), 49- 53.

Williamson, J. (2009), "Exchange Rate Economics", *Open Economics Review* 20(1), 123-146.

Williamson, E.O. (2000), "The New Institutional Economics: Taking Stock, Looking Ahead", *Journal of Economic Literature*, 38(3), 595-613.

Wu, W-M. (2012), "Capacity Utilization and its Determinants for a Container Shipping Line: Theory and Evidence", *Applied Economics*, 44(27), 3491-3502.

Yoshikawa, H. (1980), "On the *q* Theory of Investment", *American Economic Review*, 70(4), 739-743.

Zellweger, T.M., & J.H. Astrachan (2008), "On the Emotional Value of Owning a Firm", *Family Business Review*, 21(4), 347-363.