FISCAL POLICY AND THE GROWTH OF FOREIGN DIRECT INVESTMENT

IN SUB-SAHARAN AFRICA (SELECTED COUNTRIES: GHANA,

KENYA, NIGERIA, AND SOUTH AFRICA)

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FISCAL POLICY AND THE GROWTH OF FOREIGN DIRECT INVESTMENT IN SUB-SAHARAN AFRICA (SELECTED COUNTRIES: GHANA, KENYA, NIGERIA, AND SOUTH AFRICA)

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VITA

Joshua Anjorin Bello, son of the late Samuel Olatunde and Janet Ebun Bello, was born on May 21, 1952, in Aiyetoro-Gbedde, Kogi State, Nigeria. He started his high school education at St. Paul's College, Zaria, which he completed in 1971 at Offa Grammar School, Offa, Kwara State, Nigeria. After attending Kwara College of Technology (1974-1978) and upon completion of the National Youth Service Corp (NYSC) in Nigeria in 1979, he worked briefly in the private sector before coming to America on September 25, 1981 to continue his education. He graduated from Bowling Green State University, Ohio with a Bachelor of Science degree in 1983 and earned his MBA at Jacksonville State University, Alabama in 1988. He moved to Atlanta, Georgia, where he got a job with the Florida Department of Revenue in Tallahassee as a Tax Auditor that moved him to Tallahassee in 1990. But the move was short-lived, for he transferred back to Atlanta and worked for the same department until 2001. In 2003 he started a travel agency and a private home healthcare business. He is married with three children.

DISSERTATION ABSTRACT

FISCAL POLICY AND THE GROWTH OF FOREIGN DIRECT INVESTMENT IN SUB SAHARAN AFRICA (SELECTED COUNTRIES: GHANA, KENYA, NIGERIA, AND SOUTH AFRICA)

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This study evaluates the impacts of fiscal policy on foreign direct investment (FDI) in the Sub Saharan Africa (SSA) region, focusing on the selected countries of Ghana, Kenya, Nigeria, and South Africa. The study further examines FDI spillover potential in the SSA economies, including identifying the factors (fiscal or non-fiscal) that are likely to contribute to the region's long-run FDI growth.

The general increase in competition among developing countries to provide tax incentives has centered on the prospect of knowledge spillovers (among other benefits) that might result upon foreign investors establishing affiliates in the host countries. The Sub Saharan African countries, like those in other developing regions, have adopted a liberalized policy stance in the last decade and continue to provide incentives to foreign

investors as a way of influencing FDI decisions. This increase in competition has therefore revived the long-standing debates on the importance of tax incentives in the FDI decisions of multinational corporations. Many have argued that tax incentives are not very important decision factors when multinationals are deliberating on where to locate their firms or plants, especially in the developing economies. Others, however, assert the opposite, that tax incentives are important considerations in the investors' decisions.

This study attempts to contribute to these debates focusing mainly on the tax incentives in SSA countries and the potential knowledge spillover benefit these countries hope to get in return and how that can be achieved.

Ordinary Least Square Regression and cross-sectional and time series analysis are employed to make estimations and analyses of the historical data of four selected countries representing Sub Saharan Africa for 23 years (1980-2002). The pooled time series regression results show no evidence that fiscal incentives have attracted investments to SSA as a region, but variations exist between the nations in the region. The results show, however, that human capital and market size are most important determinants for FDI growth in SSA, supporting previous studies that human capital is fundamental to technology transfer and advancement in FDI growth. Political stability was also found to be very important to FDI growth in SSA countries, but deficits and tax rate both have negative impact on FDI.

The implication is there for governments in SSA region to review their positions on the offer of fiscal incentives. To enhance FDI growth in the region, SSA countries should *invest in their people* and policy makers may need to employ policies that are more dynamic and tuned to the rapidly changing technology.

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My family has been very resilient throughout the entire Ph.D. program, and I greatly appreciate the sacrifice. I therefore want to thank my wife Lillian, and my lovely children, Isaiah, Joseph, and Rachel Bello for their contributions in their own way.

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I. INTRODUCTION

The worldwide growth of Foreign Direct Investment (FDI) in aggregate terms and in importance has been phenomenal within the last two decades, growing faster than trade flows, in particular among the world's most advanced economies (Ericsson & Irandoust, 2000, p. 1). In 1997, the value of international production at $9.5 trillion, as measured by the estimated global sales of foreign affiliates, indicated the effect of international production in deepening the interdependence of the world economy, exceeds that achieved by international trade alone (United Nations World Investment Report [UNWIR], 1998).

According to United Nations Conference on Trade and Development (UNCTAD 1999), sale of foreign affiliates estimated at $11.0 trillion surpassed the estimated total world trade of $7.0 trillion in 1998. One-half of all trade and one-fifth of world Gross Domestic Product (GDP) are attributable to multinational corporations (Rugman, 1988).

For decades, the sources of FDI have mainly been from developed countries with the United States, Japan, and the European Union (the triad as the three are often referred to) the leading suppliers and receivers. The triad's share of net capital flows increased from 57% in 1980–1982, to 73% in 1983–1986, and then to 85% in 1987–1990 (Griffin-Jones & Stallings, 1995, p. 2); overall, the 10 largest recipients accounted for 74.1% of all FDI flows between 1975 and 1980, with over half going to USA, the UK, France, and

the Netherlands (Dunning, 1998, p. 2). The developed countries provided 97% and received 75% of total FDI in 1985 (Hummels & Stern, 1994, p. 5). The world's top 30 host countries accounted for 95% of total world FDI inflows and 90% of stocks in 1999 (United Nations, 2001, p. 7). In the same year, the top 30 home countries accounted for around 99% of outward FDI flows and stocks, mainly industrial economies (UNWIR, 2001, p. 7).

Change in Trend of FDI Global Flows

While these developed countries still dominate the supply and demand for FDI on the global scale, some interesting changes have recently emerged. The more relaxed policy changes and tightened fiscal measures (structural adjustment programs) that the developing countries made in the 1980s to improve their economies and to encourage the FDI inflows in the early 1990s, seem to have paid off. The FDI flows to developed countries declined from 74.1% to 66.1% (Dunning, 1998, p. 2) as some developing countries such as China, South Korea, Malaysia, Brazil, and Mexico became FDI participants as well, both as suppliers and recipients. Not surprising, in the 1980s and 1990s, more and more developing countries began to join other developing nations to do what developed countries had been doing for years — embarking on policy relaxation toward foreign investors and offering incentives to attract FDI. With more nations striving for development, FDI became the focal point of securing capital and increasing potential knowledge spillover benefits in the developing countries.

Importance of FDI

Increasing numbers of studies (for example, Ngowi, 2001; Balasubramanyam, Salisu, & Sapsford, 1999) show Foreign Direct Investment might be an engine of

economic growth. Countries also have begun to realize that FDI flows could mean additional sources of capital to their economies, transfer of technology potentials, jobs created in the importing countries or host countries, and improvement in the balance of payment positions.

This awareness of the potential benefits of FDI in the developing countries has resulted in the softening of attitudes in developing countries toward FDI and has increased the competition among nations to provide incentives.

Scramble For FDI in The Global Market

Economic development is a top priority of most governments both in the developed and developing countries. The Mexican debt crisis in 1982 became a prelude to the declining revenues that followed in the 1980s and 1990s worldwide resulting in governments being forced to look for other sources of external financing wherever it was possible. FDI become a prominent source nations began to look for in a more liberal global market. As the scramble for FDI in the global market intensifies, so does the competition among nations to provide incentives to attract foreign investors. Investment and fiscal incentives become the favorite of policy makers, mostly in the developing countries, because incentives are easy to provide without incurring any financial costs at the time of their provision (Banga, 2003, p. 18).

In spite of the region's tendency to follow the examples of other regions to provide incentives, not all regions attract FDI equally. There has been a great disparity in the movement of FDI to various countries and regions in the last two decades, as we will read later in this chapter. For example, while the Southeast Asia and Latin American regions achieved some measure of success, similar efforts by the Sub Saharan Africa

(SSA) governments did not seem to change the relatively low foreign investment percentage in the region.

Change in Attitude Toward FDI

Up to the late 1970s, most of the developing countries were highly suspicious of FDI (Easson, 2001). To protect their "infant industries" from Multinational Corporations (MNCs), developing countries adopted all kinds of regulatory policies and indigenization decrees (trade restrictions and restrictive investment requirements) intended to control FDI flows and its perceived threat to domestic firms.

Replacing some of the above trade restrictions were some positive policy postures later created to provide more favorable conditions for foreign investors. According to a 1996 United Nation study, of the 140 legislative changes were made globally in 63 countries, with 131 of those changes favorable to investors (Easson, 2001, p. 266). Within the last decade, 94% of the 1,035 policy changes favored some form of liberalization and in 1994, over 103 countries offered various forms of incentives (Easson, 2001, p. 266). A more impressive change in the international policy environment occurred between 1991 and 2000 (UNCTAD, 2001, p. 18). According to the United Nations Conference on Trade and Development report, a total of 1,185 regulatory changes were introduced in national FDI regimes, of which 1,121 (95%) were in the direction of creating a more favorable environment for FDI. In 2000 alone, 69 countries made 150 regulatory changes, of which 147 (98%) were more favorable to foreign investors (UNCTAD, 2001, p. 18).

In Africa, the regulatory changes and bilateral investment treaties were also substantial. For example, by 1999 African countries had concluded 335 bilateral

investment treaties aimed at protecting and promoting FDI, and over 40 African countries had joined the World Trade Organization (Ngowi, 2001, p. 13).

African reliance on FDI as the bulk of its external resources started after the Mexican 1982 debt crisis that spilled over in effects to Africa and Asia. Prior to this period, Africa had depended on its external financing through bank loans and Official Development Assistance (ODA), but that started to decline considerably in the mid-1990s. Foreign direct investment then became the main means of securing capital for economic development. In the 1990s, FDI became the largest single source of external finance for developing countries, and accounted for half of all private capital and 40% of total capital flows to developing economies in 1997 (Aitken & Harrison, 1999; Henley & Kirkpatrick, 1999, p. 227). From the foregoing, it is quite obvious that FDI is a strong (positive or negative) global financial force SSA has recognized in its struggle for economic growth.

Disparity Among Developing Nations

The distributions of foreign direct investments in the developing countries have shown an uneven pattern. According to the UN (1998, p. 3), while net FDI flows to developing countries increased almost eleven fold between 1970 and 1995, from US$8.2 billion to US$87.1 billion, the African share has been on a declining slope, dropping dramatically from an average 20% to less than 3% by 1993–1995. During the same period, FDI gross inflows to SSA increased just one-and-half times compared to other developing countries which grew more than ten times, with East Asia and Latin American regions recording much higher growth (p. 3).

A more glaring disparity is found in the ratio of FDI to Gross Domestic Product (GDP) in developing regions. In 1970, Africa attracted more FDI per $1000 of GDP than Asia, Latin America, and the Caribbean; by 1990, it had fallen behind these regions and has stayed behind them since then (Ngowi, 2000, p. 2).

China remains one of the most attractive locations for FDI in the world and the most attractive location in the developing economies, accounting for 38% of all FDI flows to developing countries in 1997 (Henley & Kirkpatrick, 1999, p. 223). Its net FDI rose from just $5 billion to $37 billion in less than a decade (p. 223). Foreign Direct Investment made up only 12% of all financial flows to developing countries in the 1970s, but its steady progression to a 35% share in 1990-1996 was essentially the result of the changes in the mid-1980s (Overseas Development Institute (ODI) 1997, p. 1). This period witnessed the growing integration of markets and financial institutions, including increased economic liberalization and innovation in technologies, especially in computing and telecommunications (pp. 1–2). Also due to the debt crisis in 1982, Foreign Direct Investment became one of the major pillars of private financial flows to developing countries, resulting in the declining loans from the lending institutions in the 1980s (Nunnenkamp, 1991, p. 1148).

To encourage more FDI flows, developing countries, began to adapt the more liberal macroeconomic policies of the developed countries by opening their doors wider to foreign investors. In Asia, for example, China began its liberalization in 1979 and Singapore, South Korea, Indonesia, and other countries in the region followed in the 1980s. Latin American countries such as Brazil, Argentina, Mexico, and Venezuela started to open up their markets in the 1980s. Other developing regions such as South

Asia, the Middle-East and Sub Saharan Africa began to open up their markets to foreign investors in the 1990s by adopting economic policies needed for removal of some barriers to foreign investments thereby providing more amicable economic environments.

Although Southeast and East Asian regions have been the leading recipients of FDI to date, in the late 1980s and into the 1990s, the Latin American region re-emerged as a key recipient, with Mexico and Argentina being the largest recipients (Chudnovsky, 1997, p. 1). China may be a breed apart here, but countries like Singapore, South Korea, Brazil, Mexico, and Argentina are significant recipients in these two regions. The Asian region continued to have a rise in the FDI inflows followed by the Latin American region (Griffith-Jones & Stallings, 1995, p. 2).

Other regions have not been as attractive to FDI. Sub Saharan African in particular seems to be hardest hit not only with the incidence of low FDI flows, but with unsettling FDI fluctuations. The least successful area has also been the SSA region, whose shares fell from 21% to 12% of total capital flows to developing countries (Griffith-Jones & Stallings, 1995, p. 2).

FDI Trend in SSA

Even within the Sub Saharan African region itself, the concentration of FDI is of interest to scholars, too. The paper prepared by Todd, Ramachandran, and Shah (2004) provides a detailed breakdown of the FDI flows to SSA. According to this study, SSA has seen some modest increases in FDI flows over the last three decades, and in 2000 to 2002, FDI flows have more than doubled to $9.3 billion per year (p. 3). But what is more striking is the relative FDI share that has been falling from as much as 20% in the late

1970s to about 5% in the last two decades while the flows to other developing regions have been increasing (p. 3).

Between 1998 and 2002, only three countries (South Africa, Angola, and Nigeria) accounted for 55% of the total FDI flows to the region, and the top 10 countries accounted for over 75% of Africa's total FDI flows in the last three decades, with most of the investment oil-related and mining (Todd, Ramachandran, & Shah, 2004, p. 4).

Analyzing FDI flows by industry or sector in the countries of SSA is difficult because of lack of data. Only South Africa has a breakdown of data on US direct investment, which shows that manufacturing and other industries receive the bulk of these investments. Nevertheless, the common feature of FDI in Sub-Saharan Africa countries tends to be resource-based investments. For example, there is mining in South Africa, oil in Nigeria and Cameroon, agricultural products and oil in Cote d'Ivoire, agriculture and mining in Ghana, and agriculture and tourism in Kenya, which are the main sources of foreign earnings to these countries. However, most countries in this region are now trying to move away from their import-substituting economic policy of the past to a market-oriented policy.

High Rate of Return in SSA

United Nations accounts indicate that capital flows to Sub Saharan Africa have shown a slow percentage growth rate of FDI, despite the region's higher rate of return. According to the United Nations Conference on Trade and Development (1999, p. 17), since 1990, the rate of return in Africa jumped from below 10% to an average of 29% for US investors. Net income in Sub Saharan Africa (not including Nigeria) increased by 60% between 1989-1995 for British investors (UNCTAD, 1999, p.17, cited in Bennell,

1997a, p. 132). For Japan, the result was even more impressive. In 1995, Japanese affiliates in Africa were more profitable, after taxes, than in the early 1990s, and were more profitable than affiliates in any other region, except for Latin America, the Caribbean, and West Asia. While only Nigeria made the list of the top 12 developing country recipients of FDI in the 1980s, no SSA country was among the top 12 in the 1990s (UNCTAD, 1998, #27, p. 5).

Research Questions

The quest for answers to the slow growth of FDI in SSA in-spite of the region's more liberalized policies and generous incentives has therefore led to the following research questions:

1. What factors account for the slow growth of foreign capital flows to Sub Saharan African region as a whole, compared with other developing regions?
2. How successful were Sub Saharan Africa countries in the last decade in providing fiscal incentives in order to encourage FDI growth and knowledge spillover to SSA?
3. What factors are more likely to enhance FDI growth and knowledge spillover in SSA region?
4. How could SSA governments better employ their fiscal policy instruments to achieve the objectives of FDI growth and technology transfer?

This study addresses these questions.

Contribution of This Study

In looking at the possible factors militating against FDI growth and knowledge spillover in SSA, this study reviews the previous studies on the subject. Previous studies seem to concentrate on developing countries in other regions of the world, and few studies discuss fiscal policy and knowledge spillover in SSA. For instance, previous studies on the effects of fiscal policies on FDI flows to developing countries have concentrated mainly on the countries of Asia and Latin America with occasional reference to a few African countries. The studies done in these regions may not necessarily apply to SSA countries because of the uniqueness of the region, their colonial past, and geographical location, making the need to do similar studies in SSA essential. However, the very few studies in the literature that research FDI determinants in Africa have generally left out effects of fiscal policy on FDI, and little attention has been given to human capital development as pivotal to knowledge spillover and effects on SSA economic growth.

For example, a study done by Asiedu (2002) focused on return on investment, physical infrastructure, degree of openness, natural resources intensity, and corruption, leaving out discussion of the contribution of policy on FDI growth and technology transfer. Schoeman, Clausen, and deWet (2000) emphasized fiscal policy, corporate income tax and budget surplus/deficits, but their coverage was limited to South Africa, and they failed to discuss the human capital and knowledge spillover relationship. Kosack Stephen and Tobin Jennifer (2003) focused on the differences between FDI and Foreign Aid (also called official development assistance-ODA), concluding that FDI brings economic growth while foreign aid can be used for human development in the

poor countries but fails to emphasize the importance of human capital to FDI knowledge spillover. Foreign aid was actually the main source of external financing for developing countries after World War II and up to the early 1990s (Beyond Economic Growth [BEG], 2004). But by the mid-1990s through 2000, while aid flows stagnated due to tough fiscal conditions in the donor countries, flows of FDI increased rapidly (Kosack & Tobin, 2003).

Bende-Nabenbe (2002) studied market size, GDP growth, and investment policy effects on FDI in SSA. Still other studies, such as those by Shah and Slemrod (1991), Ramcharran (1999), Collier and Pattillo (2000), and the United Nations (1998) emphasized the impact of country risk on FDI. All these studies have not adequately addressed the importance of human capital on FDI growth and spillover in SSA, yet these are basic elements that determine the form and scope of FDI flows to an economy, and government policies on these elements do determine how fast this region will be integrated into the global market.

What has so far been largely ignored will be the focus of this paper. This study will not only discuss the main independent variables used in the studies mentioned above, but it will bring into focus the importance of human capital as a means to technology spillover and FDI growth in SSA.

Limitations of This Study

There are limitations in this study. Data availability and reliability remain two of the significant constraints one encounters in attempting cross-sectional time series analysis of SSA region. Data on capital inflows to the region, if available, can be very

unreliable due to a number of reasons including poor recording systems or recording capital in incorrect accounts (Pigato, 2001). The result is that a few observations or events that are addressed in this study are not captured by the empirical method.

Data Availability

Before any data can be considered for their reliability or otherwise, they must first of all, be available. Lack of data constitutes one of the greatest challenges facing those trying to do a study on FDI flows and growth in Africa. Getting data on most variables to cover any reasonable length of time is almost impossible.

The choice of countries for this study was partly due to the fact that these countries are among the few that have most of the relevant data. Most countries in the region do not have data, and those that do still have some years with missing data. The result is great limitations in the number of observations that could be made. Fortunately, these selected countries have similar economic characteristics with the other countries of the region, mainly primary product-exporting agro-economies and resource-oriented FDI. This provides the study a reasonable basis for generalization.

Data Reliability

After obtaining data, the next concern is their reliability. The data available in this region are highly unreliable by any standard. Even inconsistencies in United Nations data are not uncommon because of differences in the methods used in gathering those data by the UN's various agencies.

Definition of Terms

The following terms and their definitions are crucial to an understanding of the research presented here.

Budget Surplus/Deficits: While corporate income tax rate relates to the revenue side of fiscal policy, budget surplus/deficits measure the way government handles the budget in a given year. Budget surplus/deficits help us look at how government is controlling spending; it indicates government discipline with regard to its fiscal policy implementation. For example, budget surplus is when government spends less than the revenues it collects from various sources in a given year, and has an unspent amount left at the end of its fiscal year. Conversely, a country has a budget deficit in a given fiscal year when it spends more than the revenue it collects in that year.

Corporate Income Tax (CIT) rate is the tax rate governments apply to the gross profits of a corporate entity, foreign or domestic, for nexus business activities. CIT is used in this study to measure fiscal incentives governments provide to attract foreign investments.

Dependent Variable is an output number whose value depends on the value of the input number in a function. In this study, Foreign Direct Investment (FDI) is the key dependent variable.

Foreign Direct Investment (FDI) has been defined by the United Nations World Development Indicator (2003) as ownership by a foreign entity of 10% or more of the voting power in the stock of a corporation. An investor's lasting interest in a corporate

entity in a country other than where the investor resides is required since that indicates that the investor has an effective voice in the management of this corporation in the foreign land.

Foreign direct investment can be of various types. The "Greenfield" FDI (more common in developing countries) is basically when an investor has a firm in the host countries competing with local corporations. Portfolio Investment is a collection of investments a corporation has in various business establishments. Mergers and Acquisitions are other forms of FDI and by far the main means of attracting FDI in developed countries. According to the United Nations World Investment Report (2001, p. 1), Mergers and Acquisitions still dominate FDI more than any other form.

Fiscal Policy is concerned with government's collection of revenue and spending (expenditure). Fiscal Policy has two main components--revenue collected through taxes such as the Corporate Income Tax, Excise Tax, Individual Income Tax--and government expenditure, which refers to spending on the needs of society such as defense, infrastructure, and education.

Gross Domestic Product (GDP) is the total production of goods and services in a year by the total labor force of a country. It measures the market size of a country at any given year and for any given period of time. Foreign investors usually prefer a large market to a small market because of the potential buying power of the large market.

Human Capital Development is the continuous improvement, through training and practice, of human knowledge, skills, and abilities (KSA) that comes about through education.

Independent Variables are input numbers of a function.

Multinational Corporations (*MNCs)* (sometimes called Transnational Corporations or TNCs) have many dimensions. The prevailing perspectives widely used are those summarized by Franklin Root (1994) that among other things MNCs engage in foreign production through their affiliates located in several countries. The parent company sets the agenda and policies as well as controls these affiliates through planning, organizing, coordinating production, marketing, staffing, research and development, and other managerial duties. Most importantly, MNCs are defined by their profit maximization motive on a global scale.

Monopolist is a firm that operates under imperfect market conditions in other to maximize profit. It is usually a large business unit in the market that tends to dominate its section of the economy. Price discriminations and asymmetric information are some of the characteristics of an imperfect market, some of the very features that attract the monopolist.

Oligopolists are usually a few large firms operating in the market taking advantage of economy of scale.

Privatization is when government enterprises are taken over by the private sector of the economy through joint venture, buyout, or merger and acquisitions. This usually happens when governments consider the management of these public enterprises could be better served in private hands and when governments look for investment capital to finance other programs.

Organization of the Study

The rest of the study has the following arrangement: Chapter Two is a literature review on the determinants of foreign direct investment, impacts of incentives on FDI, foreign direct investment and its spillover potential, fiscal policy, human capital, and a summary of previous studies on FDI flows.

Chapter Three builds on Chapter Two by analyzing the four selected countries of Sub Saharan Africa addressing mainly their economic structure and fiscal policies toward FDI. Chapter Four contains the theoretical model and hypotheses. Chapter Five deals with the estimation and empirical results and analysis of the findings. Chapter Six concludes with suggestions on how to improve FDI growth in SSA including where to direct possible future research on FDI.

II. LITERATURE REVIEW

The use of fiscal incentives to attract FDI in the developing countries has arguably sparked many more debates among scholars than any other issue in the FDI theory (Morisset & Pirnia, 1999, p. 3). The results of these studies seem to vary from region to region due to data gathered (for instance, using marginal rate instead of effective corporate tax rate), availability of data, the methodology used (interviews or mailing questionnaires), the economies being studied (developed or developing countries), and the analytical tools employed. Nevertheless, these debaters seem not to have slowed down the growing concern over whether the incentives developing nations provide have strong influence on the foreign investors' FDI decisions, or whether they result in bringing knowledge spillover to developing economies. Most scholars assert that incentives are not important while some say they are very important FDI determinants, resulting in no consensus emerging in the literature on whether incentives constitute any major attractive forces for foreign direct investment flows.

In this chapter, the major theories on which those debates are built are reviewed, followed by discussion of some of the main studies on foreign direct investment incentives. Since economic growth theory formed the platform on which FDI theory developed, it is discussed here first.

Growth Theories

The two main theories of economic growth considered in this study are the neo-classical model and the new growth model. The neo-classical model is the earlier model and literally forms the basis for the new growth theory.

While the neo-classical theory of economic growth predates the model propounded by Robert Solow,[1] Solow's (1956) growth model has been alluded to in the literature as the standard theory of economic growth (Ireland, 1994, p. 1). Solow's neo-classical growth theory explained economic growth with the accumulation of factors of production to be subject to diminishing returns to scale.

As a result of diminishing returns to capital, Solow's neo-classical theory argues that there is a faster rate of growth that occurs in the economies starting further below their steady-state positions; so, holding the determinants of the steady-states positions fixed, the neo-classical model predicted faster per capita growth rate in poorer economies (conditional convergence) (Barro & Sala-i-Martin, 1997).

In their analysis of neo-classical theory (and new growth theory discussed below), Barro and Sala-i-Martin (1997) agree with the neo-classical model when a pattern of conditional convergence emerged in their own diffusion of technology model (when two economies' technologies tend to narrow due to blending). They argue that there is a relatively low cost of imitation at the initial stage and follower nations tend to grow faster to catch up with leader nations, but as "the pool of copiable material decreases, the costs

[1] Ramsey (1928) and Frank Knight (1944) were two of the main references to neo-classical theory before Solow's (1956) model.

of imitation tend to rise and the followers' growth rate tends to fall" indicating diminishing returns of capital (p. 2).

The neo-classical model also recognized technical progress only as an exogenous variable that has made possible sustainable growth in national income per capital at a constant rate (Ireland, 1994, p. 5). In treating FDI as an addition to the capital stock of the host countries, neo-classical theory categorized capital as externalities subject to diminishing returns with only a *short-run effect and not a permanent impact on the growth rate* (Kinoshita & Campos, 2001, p. 4).

A major weakness of the neo-classical model hinges on its treating capital as an exogenous production factor with diminishing returns feature, recognizing capital's *short-run effect* but not its lasting *growth effect* on the economy. The model also fails to explain the widely observed variation in long-term growth-rates both within countries over time and across countries at any given point in time (Ireland, 1994, pp. 1–8).

These shortcomings prompted economic scholars to search for alternative models that would account for variation in long-run growth as well as see technological progress ascribed to knowledge-based capital with at least constant return attributes. The new growth theory becomes an alternative to, not a replacement for, the neoclassical theory.

The new growth theory[2] widens the definition of capital to include both physical and human capital, land, and scientific knowledge, thus making capital endogenous with increasing returns to scale features as against diminishing returns of the neoclassical

[2] Romer (1987), Barro (1990), and later Lucas (1988) are some of the main writers of the new growth theory, which was actually built upon Frank Knight's (1944) earlier theory of economic growth. For more detail, see Ireland, 1994.

theory. With the all-inclusive approach of the new theory expanding the definition of capital, factors of production are interdependent and any slack in performance of a factor is offset by the performances of other factors thereby maintaining the increasing return feature. The new growth theory asserts long-run growth effects of FDI on the economy, which the neoclassical theory failed to recognize. By expanding the definition of capital to include knowledge, the new growth theory (also called endogenous) essentially holds that knowledge and technology are characterized by increasing returns that drive the process of economic growth (Cortright, 2001). This important distinction in the two theories, namely, capital as a factor of production subject to diminishing returns of neoclassical theory and the idea that capital in the form of knowledge and technology is characterized by increasing returns as espoused by the endogenous model, is very critical to the theory of FDI. The two theories both used capital as the central theme of their arguments, but their methods produce different outcomes and effects.

With a diminishing return to production comes the higher cost per unit of production for an additional unit of capital put in production. A higher cost of production has the same effect as the host, or home country, raising the corporate income tax rate. Another implication of the two different theories on capital in production is that if capital is exogenous, then government policies are not relevant factors in economic growth. This is different from the new growth perspectives that make knowledge and technology endogenous and thus make it possible to see how important government policy can be on economic growth.

FDI Theory

Since FDI theory derived from economic growth theory, there are those scholars who explained FDI determinants based on neo-classical theory and those who used more modern new growth theories that "built" on neo-classical theory in their search of an alternative model.

Neo-classic theory under the assumption of a perfect market asserts that multinational corporations invest abroad as a result of differences in returns on investments among countries. According to this theory, factors of production are usually moved from countries with low returns on investments to countries with high returns on investments (Fan, 2002).

The neo-classic theory looks at FDI from the free-trade perspective, but it is unrealistic because the market is not perfect, and the theory fails to explain how a region may have a relatively high return at a given period and still not be attractive to foreign investors during the same period. A case in point is high returns in SSA, but little interest in the region from foreign investors (World Development Indicator, cd-rom 2001).

The new endogenous theory assumes imperfect market conditions. With imperfect markets, the monopolist or oligopolist tends to profit through product differentiation due to asymmetric information or economy of scale. For example, the popular theory of derived demand by Lucas (1993) is a monopolist model with multiple plant production that incorporates differentiation across plants with the purpose of maximizing profits. Also, in the oligopolistic industries, firms may have economies of scale and other characteristics that give them market power advantages. These market advantages are usually taken to be disadvantages MNCs often have by operating in a host countries

given their competition against local firms in countries that have FDI activities (Brewer, 1993). The treatment of capital from the firm's perspective without much consideration given to the impacts government policies have on FDI determinants remains the main weakness of this theory.

A strand from the modern theory just mentioned above and perhaps one of the most popular is the one that focuses on the internalization of transactions and cost-minimization within MNCs. This theory uses the transactions cost differentials across borders to explain the generalized motive for international investment. According to Jalilian (1996), transaction costs brought on the firms by government policies such as trade barriers in the form of tariffs and import quotas create market imperfections.

As a result of imperfections in factor markets (e.g, technology, capital, labor, and raw materials, etc.), an MNC with advantages in technology, management, and human capital, for example, is able to increase the return on its investment by carrying out transactions for such assets internally via intra-firm transfers (Jalilian, 1996).

Dunning's eclectic theory (1998), which integrates internalization theory[3], remains the most widely mentioned theory to date on FDI determinants because it attempts to provide a more generally plausible theory of FDI determinants. Dunning's theory of FDI determinants or OLI (Ownership, Location, and Internalization) relies heavily on the configuration of three sets of forces for FDI to occur in a location.

First, a firm must be able to compete with domestic firms, which have obvious advantages due to the possession of information on the local economy. The foreign firm

[3] The internalization theory drew from the work of Coase (1937) in *The Nature of the Firm.*

is able to overcome asymmetric information disadvantages with its market power advantages of technology, human training and skills, including access to large capital, etc.

Second, there must be location advantages (possessing natural resources), which attract FDI more than the natural resources in other locations. Third, there must be internalization, meaning transaction costs differentials (such as trade and licensing) created by an imperfect market across-borders making FDI a more attractive alternative. For example, avoiding costs associated with international trade is considered a major motive for a multinational enterprise to set up firms in multiple countries, and where firms could decompose their production process into various stages, they might produce in multiple countries to determine where their productive factors could be put into use at minimum cost (Yeaple, 2002).

Dunning's theory provides a framework for the study on FDI determinants by introducing, as he puts it, "a methodology and a set of generic variables possessing the ingredients necessary to explain certain forms of international transactions" (Dunning, 2001, p. 177). The eclectic paradigm provides the tools for analyzing the determinants of international production, which is why this theory has been selected in this study to provide the framework for explaining the MNC's cross–border investment decisions.

Two of these conditions discussed in Dunning's theory — location and internalization (transaction costs) — come directly under the influence of policy regimes in SSA. How policies are formulated and implemented directly or indirectly impact the third factor, FDI capital.

Effects of Fiscal Incentives on Foreign Direct Investment

The debates over the importance of tax incentives in FDI decisions seem to be growing in response to the increasing competition among nations to provide incentives. Some of the arguments for the use of tax incentives point out that where competing countries competing for FDI are comparable in economic structures and have no visible advantage of one over the other, then tax incentives can play a crucial role in the multinational corporations' final FDI decisions. Although research did not find a strong link between incentives and investments, once other factors have provoked the decision to locate in one broad area, then incentives can strongly affect the decision on the more precise location of the production facilities (Forsyth, 1972).

In his study of what attracts FDI into Pakistan, Shan (2003), argues that fiscal incentives are more appropriate to the extent that they have no direct drain over public resources and they tend to increase the after tax returns of corporations because of tax holidays and depreciation allowances. The increase in after-tax returns as a benefit of tax incentives only considers the firms' side; it has failed to evaluate the loss in revenue by the host countries for providing those incentives (Boskin & Gale, 1986; Shah, 2003).

Those who argue against the use of tax incentives give a number of reasons for their arguments, too. For example, there is the possibility of redundancy arising from any general incentives provided for all firms, thereby covering those firms that would still invest in the absence of incentives given. These firms receive a windfall gain from tax incentives without changing their behavior (Edmiston, Mudd & Valev, 2000). Furthermore, Edmiston, Mudd and Valev (2000) suggest there could even be a negative side to tax incentives where additional tax burden on firms that are not benefiting from

specific tax incentives discourages them from investing more in the host country. Governments sometime provide these kinds of incentives to encourage locations to economically repressed areas of the country. This seems to support the sentiment by Morisset and Pirnia (2001) that tax incentives not only indicate a poor instrument to compensate for various negative factors in the investment climate of a country, they can have negative impacts on fiscal revenue, in addition to engendering possible suspicious behaviors from tax administration and corporations.

Hartman's (1984) empirical study of the effect of taxation on foreign investment using time series data focused on foreign investors in the United States and specifically on three variables: (1) the after-tax rate of return realized by the foreign investors in the U.S.; (2) the overall after-tax rate of return on U.S. capital owned by foreigners; and (3) the tax rate on U.S. capital owned by foreign firms relative to the tax rate on U.S. capital owned by U.S. investors. His results show that the tax rate of the home country of the multinational corporation affects, in large measure, the FDI decisions MNCs make once the decision to invest abroad has been made. Also, the host country's tax rate has greater effects on multinational corporations retained earnings than capital directly (new funding) from the parent company to its affiliates.

Countries that tax the income of their corporations with affiliates abroad without regard to the sources of the income (source principle) must have some form of arrangement with the other countries from which the income is derived in order to avoid double taxation. To do this, tax on income from foreign lands is suspended until the income is brought to the country (tax deferral). For example, the U.S. taxes income from abroad only upon repatriation, but grants tax credits to foreign corporations. Japan and

the U.K. are two of the industrial nations with similar tax systems as the U.S. Countries such as France, Germany, and Australia on the other hand, exempt from taxation profits earned abroad (Morisset & Pirnia, 2001). The level of impact of a host country's fiscal policy on tax incentives depends on the home country's tax treatment of foreign income. From Hartman's (1984) study, the impact of the host country's tax rate on corporate profits appears to be greater with retained earnings and with no effects on new funding from parent companies to their affiliates.

Foreign Direct Investments

As countries court multinationals for investment capital, their policy actions contribute to market imperfection, but it is important to realize that foreign direct investment flows are still largely controlled by the market mechanisms. The apparent successes of the Asian "tigers" in attracting FDI in these last two decades have been associated partly to this keen awareness—to allow for maximum scope for interplay of market forces with measured government interference (Soludo, no date). Multinational corporations are in the global market to scout out countries or regions that have the best location and the right mix of determinants for their investments. Host countries must not only have the natural and human resources that investors need and look for, they must understand the nature of the investment they are trying to attract to their economies as that investment could reduce the waste of their resources. This means that host countries must be dynamic in their policies as much as the multinationals are in their decisions to keep pace with the rapidly changing technology. For a market-seeking type of FDI, for example, the firm scouts out criteria that concern market size, structure, and growth,

access to regional and global markets, in addition to studying consumer buying power and preferences (Ngowi, 2001). There are multinational corporations that are more concerned with the resources of a country or region. The search here will target countries with the needed raw materials, cheap labor, and physical infrastructure. Multinationals tend to come to regions like SSA, because of abundant natural resources of the region. As a result the SSA is rich with resource seeking FDI more than any other form of FDI.

Since one way to increase profit is to reduce input cost, a firm would attempt to reduce input costs such as on transportation, communication, utility, and other operating costs through efficiency driven FDI. Unfortunately input costs such as cost of transportation, communication, and tariffs are generally high in SSA (Salinger, 2001). Africa has the highest transport cost of any region. Freight costs for import are sometimes 70% higher in East and West Africa than in developing Asia (Ngowi, 2001, p. 11). These high costs are due in part to the geographical locations of many African countries that are landlocked with no access to the outside world via commercial waters like big rivers, lakes, seas, and oceans.

The global market is a very competitive place for the host countries looking for investment capital as well as for multinational corporations. Multinational corporations planning to expand overseas must take more innovative steps in their operations to be competitive. These steps include seeking bigger market shares, pursuing creative assets such as technology through research and development, and increased innovative capacity with the corollary of a skilled workforce. These people-made created assets take competition to a higher level. Firms that seek to be competitive in the global economy are more attracted to countries that develop such assets (United Nations, 1998).

To catch up to developed countries in technology, developing countries, especially in Africa, may need to seek efficiency-technology driven FDI along with resource-based FDI now common in their economies. In other words, while resource-based FDI is still important, it is the efficiency-seeking technology-driven FDI that provides the tone to the direction of globalization. The new growth theory not only helps us make sense of the ongoing shift from a resource-based economy to a knowledge-based economy, it underscores the critical role of the economic processes which create and diffuse new knowledge that shape the growth of societies, corporations, and nations (Cortright, 2001, p. 2).

The apparent gap between resource-based and efficiency-seeking-technology-driven FDI fashions some parallel we now see between the developing countries and the advanced countries. The differences in the scientific and technological infrastructure have been the major factors behind the differential social and economic levels between the groups (Bilsel & Oral, 1995). The less a developing country relies on natural resources and primary product export and strives for efficiency-seeking FDI, the closer and faster it can move to the advanced countries' level of production capacity, because production in the manufacturing and service economies is several folds more than in primary commodities exporting economies (UNCTAD, 1999). Investors seek out regions or countries with assets that can optimize the use of their investments.

For illustration, Table 1 shows the general features of resource-driven and efficiency-technology-driven FDI.

Table 1

Resource-Based FDI and Technology-Based FDI -Features

Resource-Based FDI	Technology-Driven FDI
1. Depends more on the natural resources in a location	Depends more on the human resources in a location
2. Natural resources in most cases are fixed and subject to depletion.	Human resources can be increased through education and training
3. Does not require a broad industrial base	Technology driven FDI thrives best in an economy with broad industrial settings, especially in manufacturing and service industries
4. Relies less on innovation and research	Feeds on innovation and research
5. Usually labor intensive and low skilled workers	Likely to be more capital intensive and high skilled workers
6. Characterized by low production per capita	Characterized by high production per capita
7. Requires no diversification in the economy.	FDI growth is best seen in economy that diversifies
8. More able to survive in unstable countries	Not likely to survive in politically unstable countries.

Source: Compiled by this author from literature reviewed for this study

In their search, multinational corporations tend to look for locations with a reservoir of special skills, and FDI and human skills are among the important complimentary variables attractive to foreign investors (Markusen, 1998).

Fiscal Policy

Fiscal policy is a major instrument of governments to effect changes in their economies, and how this instrument is formulated and implemented has great impact on the growth of foreign direct investment in the economy. As mentioned above, fiscal policy is concerned with government revenue and expenditure as reflected in the nation's budget; both revenue and expenditure sides have growth effect on FDI.

Revenue size depends on many factors such as the tax base, tax rates, tax administration, and transparency. The state of these factors very much determines the amount of revenue the government would collect in a given year. In SSA, the conditions of these factors have negatively impacted the growth of FDI as we can see from the discussion of these factors.

Tax Base

Tax base refers to the various sources from which government can collect taxes. When an economy is diversified, it has more sources and therefore a greater tax base than an economy that is not diversified. Sub Saharan Africa, relative to other regions of the world, has difficulty collecting revenue in large measure because of a small tax base, which is due to lack of progress in diversification of its economies (United Nations, 2001). The SSA revenue from individual income taxes does not amount to much since unemployment is high, and those who work do not pay much tax because wages are low.

The region is one of the areas of the world with many public enterprises and a small number of manufacturing companies. Company size tends to be small and revenues from these private enterprises are small due to a number of reasons such as performance of the enterprises, tax evasion, and corruption. With low revenue, countries sometimes

resort to imposing high tariffs and excise taxes to make up for the shortfall in the direct tax.

Corporate Income Tax (CIT) rates in SSA are still high and so are tariffs rates. The effects are higher input costs for investors whether foreign or domestic, consequently dampening the interest of investors who might be considering investing in the region.

Tax Rate

While high taxes are clearly indications of strict fiscal policy that discourages investment, low taxes could also indirectly show negative impact on FDI growth with time, since low revenue for the government means less funding of projects such as infrastructure and education and the economy as a whole. According to the UN, the economy of SSA has a lower growth rate (4% on average) than is required to take its people out of poverty (7% annually)(UNCTAD, 1997a, p. 288). This being the case, few investors would want to invest in such region.

Tax Administration

The way and manner that a tax administration is run can have a profound impact on the amount of revenue the government collects each year. The tax administration handles the tax policy implementation stage, which involves among other things, interpreting the tax law and codes, planning, and management of collection procedures. All these require some level of training and skill that could only come through education of tax personnel. In SSA, the tax administration departments are usually ill equipped to handle the daunting tasks given to them. One of the difficulties they face is crippling bureaucracy — usually associated with static policies and not getting adequate funding to

recruit staff. But the greatest challenge is getting staff with the technical skill required for tax collection.

One area where it will be particularly necessary for tax technocrats to be available is the tax policy formulation stage where policy makers determine the tax rates and incentive packages (tax holidays, credits, etc.) to be granted to the multinational corporations. In both the policy formulation and implementation stages, the tax administrations in SSA have been grossly inadequate to the task and inefficient in operation resulting in most cases in low revenue and inappropriate tax policies. Many SSA countries have difficulty in raising revenue for public purposes due to poorly structured tax systems, weak tax and customs administrations, low per capita income, and an economy based in subsistence agriculture (Stotsky & WoldeMariam, 1997). Inappropriate tax policies are two fold here: one is basing policies on historical data that may essentially be outdated, inadequate, and unreliable, and the other involves the possibility of providing tax incentives without having a way of knowing what effect, if any, they might have on multinational corporate decisions on FDI or not being able to measure the benefits/costs of such policy gestures. A very costly tax policy would be providing general forms of incentives to attract investors to a location who would have chosen the location anyway without regard to those incentives. Inappropriate tax policies further waste resources when foreign investors simply do not give these countries any consideration in their decisions (Bende-Nabende, 2002).

Transparency

Lack of transparency can negatively impact a system in many ways. A tax policy properly formulated may wobble at the implementation stage due to corruption and incompetence. Where corruption is rampant as in most SSA nations, progress is stifled. Many countries in Sub-Saharan Africa are among the most corrupt worldwide according to *Guardian* (2004), a reputable Nigerian daily paper. The paper carried a report from the United States General Accounting Office (GAO) and noted the concern expressed by the U.S. government that long-term economic growth and development were being severely undercut in SSA by the diversion of funds that could be used for education, investment, and public infrastructure. The GAO report supports the 2004 World Bank and Transparency International Index ranking of many African nations, including Nigeria (which ranked 171 out of 183 countries), as among the most corrupt in the world. In Nigeria, there is even the strong antidotal view that corruption and cover up efforts might have led to some deliberate attempts on the part of the officials to destroy records and make data impossible to find. Planners use whatever historical data are available to make estimates of the amount of revenue to be collected in the next fiscal year (an incremental approach). It is upon these estimates fiscal policies are based; so it is quite possible to have policies that are doomed to fail from the beginning because of corruption.

As the GAO report indicates, corruption can derail implementation of a program such as on education or take away funding meant for road construction, or money meant for the salaries of government employees may be diverted to someone's bank accounts, usually in a foreign land. These are some of the features that permeate the government policies of SSA that are difficult to capture in empirical analysis. Nevertheless these

features wield enormous and catastrophic effects on any macro-economic reform initiatives.

Human Capital-Knowledge Spillover

The theory of human capital with the belief in human development through education and training is not new but dates back to the seventeenth century. Adam Smith in his famous "The Wealth of Nations" talked about the necessity of the public financing of education to improve the productive capacity (skills) of the ordinary citizen. The European Union aware that education forms the centerpiece of human development and is an instrument for social change, has made human capital a leading public policy theme in Organization of European Countries Development (OECD) countries (Jerome-Forget, 1997).

Foreign direct investment involves a transfer of intangible assets such as technological skills within firms and across countries. Its appeal entails a cross-border transfer of a variety of resources: process and product technology, managerial, marketing and distribution skills, and human capital, which sets it apart from other sources of investment like portfolio investment (Fan Emma Xiaoqin, 2002, p. 4). Human capital plays an important role in determining the rate of return for physical capital invested, which in turn affects the direction and magnitude of international FDI flows, and the rate of technological change in a less developing country is an increasing function of the size of foreign capital stock operating there in (Gerschenkron, 1962 cited in Fan Emma Xiaoqin, 2002, p.6).

In consequence, a successful transfer of technology associated with FDI flow is a function of human capital availability that such transfer would require. The production factor that largely takes FDI global is human capital, which also allows it or any other forms of capital such as investment portfolio or loan, to have active functional capability that makes production possible.

Education is one principal means by which society advances and since spillover may be knowledge or technology based (Harris & Robinson, 2002), education is the necessary thresh-hold to human progress and advancement of science and technology.

As learning existing technology is less costly than to generate new technology, developing countries, assuming they have sufficient levels of human capital, have the potential to grow faster than developed economies for any given level of investment or research and development spending (Blomstrom & Kokko, 2003). For instance, according to the United Nations, China the second largest recipient of FDI behind the United States, has the fastest growing economy in Asia, followed by Malaysia. Both had average Gross National Product (GNP) growth of 8-10% annually between 1992 and 2002, a growth rate higher than that of most developed countries. In the 1990s, Indonesia's GDP tripled that of Nigeria in less than three decades, while Thailand, a poor agricultural country like Ghana and Nigeria in 1965, has now become one of the world's best performing economies, a feat achieved, among other things, by market-approach economic policies, education, openness to foreign trade, and technology (Soludo, no date).

Figures 1 and 2 show the levels of disparity between developing and developed nations and between regions on illiteracy.

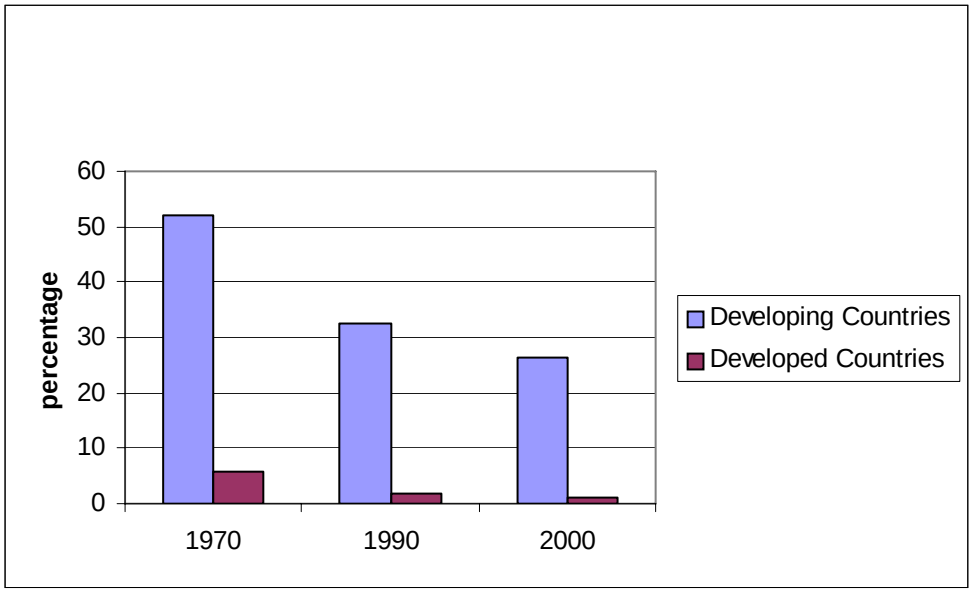

Figure 1. Developed and Developing Countries Estimated Illiteracy Rate, Aged 15 Years and Over
Source: UNESCO Statistical Yearbook 1999, Institute of Statistics.

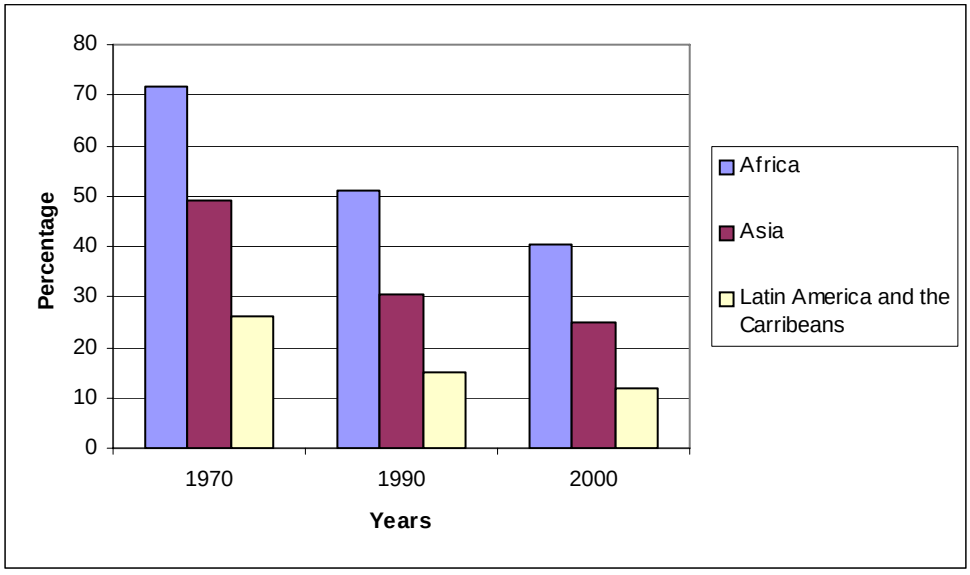

Figure 2. Estimated Illiteracy Rate by Region, Aged 15 Years and Over.
Source: UNESCO Statistical Yearbook 1999, Institute of Statistics.

A review of research sponsored by RAND's Institute on Education and Training found that differences in productivity growth across firms and industries could be linked to spending on research and development (R&D) (Strum, 1993). The report also revealed that the relative U.S. performance in high-technology industries in the past few decades could remain in its competitive position if the government is able to create comparative advantage through education and training policies. It is no accident then that developing countries that follow the leads of the developed countries in their human development efforts are those that witness increases in per capital productivity and economic growth because they have taken the right steps toward economic reforms (United Nations, 1998).

FDI and Spillover Potential in SSA

The potential spillover benefits to a developing nation include improving the skill of the labor force, introducing new and superior technology and techniques, and introducing new and improved products (Harris & Robinson, no date). There are basically three ways a country can acquire technology—innovation, through the efforts of its own educated citizens, transfer from multinational enterprises to their affiliates and local firms in the host country (similar to imitation of a leader nation's technology by a follower nation), or a combination of these two.

Spillover is not automatically present though with FDI. It comes over time through the labor market via skill enhancement, and its magnitude depends on the local country's level of human capital and the willingness and absorptive capacity of domestic firms (Harris & Robinson, no date). To make transfer of technology possible, the country

seeking the transfer of that aspect of technology must have the economy (market size) and enough stock of educated and skilled workforce that would understand the complexity of the technology transferred and also be able to use the technology (Borensztein, 1998).

Most of the studies conducted on spillover in developing countries seem to center on Asia and Latin American regions. The various studies of spillovers in these two regions show that FDI positively impacted the productivity of local firms in the manufacturing sectors of Mexico, Argentina, Venezuela, and other major Latin American countries even if they were not able to say by how much or how the effects came about. Similar studies showed positive spillovers in China, Indonesia, and Taiwan manufacturing sectors. However, the test of spillover for Morocco concluded that spillover did not take place in Moroccan manufacturing, but local firms seem to be more productive in sectors where practiced technology lies within their capability (Blomstrom & Kokko, 2003). This finding may lead researchers to suggest that education and human capital are imperative since improvements in education and human capital are critical to absorbing and adapting foreign technology, helping to generate sustainable long run economic growth.

In his investigation of the relationship between investment and education, Grier (2001) found positive spillover effects between investment and education with a 1.0% increase in investment raising primary education levels by 0.43% and secondary education by 0.74%. Even though the impact of education on investment was not found to be as dramatic, it was nevertheless significant at 0.20% increase in investment level.

Rose Richard in *Lesson-Drawing in Public Policy* (1993), points to the need for entities (be they governments or economies) to be similar in characteristics in order to facilitate fungibility (transferability), which is trying policies or ideas that work in one environment in another environment. Consequently, developing countries that benefit most from transfer of technology are countries that have economies close to those of the technology of exporting countries. China's substantial increase in FDI flows is due to economic reforms, improvement in education and technology, and its market-size capacities to absorb any new technology that comes into it through MNCs affiliates.

China embarked on one of the most ambitious technology importation moves in the last two decades, making significant investment towards its industry development. Between 1979 and 1990, China's national government spent US$17 billion for over 7,000 items of imported technology, and its local governments spent US$13 billion on over 10,000 items of imported technology within the same time period (Sams, 1998). As a result of these ambitious efforts toward human development, China is one of the few nations in the world that now enjoys outsourcing by the US and other countries.

Generally in Africa, and specifically in SSA, studies point to low factor accumulation as a major factor for the region's slow economic growth. Over a 30 year period, 1960–1990, SSA invested an average of 9.6% of its GDP compared with East Asia's investment of 25.5% during the same period; the average number of years of primary school attainment was 1.42 in SSA compared to about 3.0 in Latin America and East Asia (Grier 2001). Low investment in SSA explains the falling stock of physical capital and low primary school attainment that is reflected in the low capital accumulation in the region.

According to UNESCO, at least 1% of GDP should go towards Research and Development, but only two SSA countries — South Africa and Seychelles — allocate that much for development. Nigeria was providing only 0.1% of its GDP to research and development.

A number of studies specifically investigating the relationship between the technology gap between MNCs and domestic firms and the spillover effects have overwhelmingly concluded that (1) spillovers are strongest in industries where the gap between domestic firms and foreign firms is low and (2) spillovers are concentrated in middle-income developing countries. Also, there is no evidence of such spillover effects for the poorest developing countries since few of these countries possess the know-how needed to absorb foreign technologies (Blomstrom & Kokko, 2003).

From the foregoing, it becomes quite apparent that cross-country spillover from FDI to SSA countries has very much been elusive due to low human capital level and lack of absorptive capacity. Equally important in Bromstrom and Kokko's (2003) study is the finding that most developing countries devote much time and resources to try to bring in high-tech FDI to their economies with little attention paid to the issue of spillovers, suggesting that policy has an important role to play in determining the type of FDI flows.

For SSA countries to have the spillover benefits, their policies might need to be focused more on acquiring low-tech and mid-tech forms of FDI, since most of those might fall within their absorptive capacities. Also SSA policy makers might need to pay attention to the hypothesis that nations which employ human resources tend to do far better in their efforts than nations that rely more on natural resources or any other resources such as land, capital, and mineral resources (Dixon & Kirk, 1996).

Determinants of Foreign Direct Investments

So what are the fiscal and non-fiscal factors that mostly attract foreign direct investments? Most theoretical models and empirical results indicate several independent variables to be very important FDI determinants in both developed and developing countries. The following section reviews the independent variables that this study considers to be most applicable to the SSA region.

Market Size

In the literature, market size (measured by GDP) is considered by most as one of the important independent variables influencing the decision of MNCs to locate in a country (Akcay, 2001; Aristotelous & Fountas, 1996; Chakrabarti, 2001; Dees, 1998; Gonzalez-Vigil, 2001; Kuemmerle, 1999; List, 2001; Love & Lage-Hidalgo, 2000; Tsai, 1994).

Some (for example, Akhtar, 2001) see market growth not as significant in their studies as market size, but others consider both size and growth to be important FDI determinants (Bardesi, Davies & Ozawa 1997; Mold, 2001). The size and structure of the domestic market in relation to the growth prospects of the host country not only affect the decision on cost-minimizing plant location, they play a role when foreign firms decide to engage in export-bound production activities in the host country (De Mello, 1997, p. 5).

Human Capital

Luiz (1997) points to the economy with the greater endowment of human capital (measured by enrollments in primary institutions of learning) as having the tendency to provide the economic environment for the globalization of production. The analysis made within a new growth theory framework of the role of FDI in promoting economic growth

shows the interactions between FDI and human capital have important influence on economic growth performance (Balasubramanyam, 1999).

Improved education, and thereby human capital conditions, is one of the country-specific characteristics necessary for FDI growth-enhancement (Asafu-Adjaye, 2000; Yang, 1999; Zhang, 2001). Human capital may affect the geographical distribution of FDI (Noorbakhsh, Paloni, & Youssef, 2001), but the higher productivity of FDI holds only when the host country has a minimum threshold stock of human capital (Borensztein, 1998).

The adjunct to human capital is the average wage of labor in the economy. On the one hand, high wages without high productivity tend to discourage FDI because wages are part of production costs. On the other hand, FDI is attracted to where high productivity and high wages co-exist because that usually suggests a reservoir of skilled labor at that location (e.g., Silicon Valley). Consequently, a country's rising wages or falling productivity encourages FDI outflows and discourages inflows (Cushman, 1987). The poor employment performance in South Africa blamed on political factors had discouraged FDI inflows into that country's economy, especially in the manufacturing sector (Kaplinsky, 1995).

Growth in FDI is positively correlated with the relative demand for skilled labor, for FDI can raise relative wages of skilled labor in a host country by bringing in skill-biased technology (Zhao, 2001).

For example, FDI accounted for over 50% of the increase in the skilled labor wage in Mexico in the late 1980s (Feenstra, 1995).

Country Risks

Country risks (sometimes assumed to be political risks) actually refer to uncertainties related to cross-border transactions (Meldrum, 1999). They can be of different kinds and forms: political risk, exchange risk, economic risk, financial risk, investment risks, etc.

Country risks figures (measured as a composite figure from a combination of all the various risks mentioned above) can be obtained from a number of sources, prominent among them being Standard and Poors, Euromoney Indexes, and International Country Risk Guide. By far the most popular measure is the International Country Risk Guide figure (used in this study). The Country Risk Guide composite figure is interpreted this way: every country in the world falls between the numbers 1 through 100. Number 1 indicates most risky, and 100 least risky country. The closer a country is to 100, the less risky that country is considered. Country risk is one of the main FDI determinants in the studies done by Meldrum (1999), Ramcharran (1999), and Shah and Slemrod (1991).

Tax Rate

The result of research on tax incentives (measured by marginal tax rate) as major determinants of FDI has been mixed. Many have argued that tax incentives are important in the FDI decisions (Akcay, 2001; Hines & Rice, 1994; Hines, 1996). For example, one study on the effects of tax policy on the international location of investment shows that tax policies such as Accelerated Cost Recovery System (ACRS) and the Investment Tax Credit (ITC), which are more often provided by developed countries, have positive

effects on the after tax rate-of-return on new investment and stimulate both domestic fixed investment and attract additional investment from abroad, at least in the short run (Boskin & Gale, 1986).

But other viewpoints are similarly compelling. For example, Young (1988) agrees that tax rates may have some impact on FDI through retained earnings. Foreign direct investment through new funds is inelastic with respect to tax rates and rates of return. There is no consistency of evidence that location decisions would be significantly changed if dividends were to be exempt from US corporate tax (Altshuler & Grubert, 2001).

The study "Fiscal Incentives, European Integration and the Location of Foreign Direct Investment," by Hubert and Pain (2002) found a modest positive impact for corporation taxes and found other fiscal instruments such as investment in infrastructure to have significant positive impact on FDI decisions. As controversial as this topic is with respect to FDI determinants, fiscal measures and subsidies remain the single most common policy governments can manipulate in the overall foreign investment regime (Mbekeami, 1999).

Budget Deficit/Surplus

The fiscal discipline of a government is often reflected in its national budgets. While a budget deficit in a particular year may not construe fairly accurately how government performs in that year, generally, consistent surpluses/deficits tend to show disciplined or lack of disciplined fiscal policy (Schoeman, 2000). In most countries of Africa, budget deficits have made their marks for most of the 1980s and 1990s. With the budget showing red ink most of these years, it would be difficult to make the economic

improvements that are needed to attract foreign investors. For example, the budget deficits expressed as a percentage of GDP have remained high since the first half of the 1990s in countries like Kenya and Zimbabwe (Pigato, 2001).

Summary of the Previous Studies

The phenomenal growth in size and importance of Foreign Direct Investment in the last two decades has generated many studies. Several theories developed on FDI determinants are generally grouped into two main schools of thought. One is the neo-classical school of thought that assumes perfect competition assumption. This theory asserts that multinational corporations would move their factors of production (capital, human skills, and technology) from a location with low return on investment to another location, which has a higher return on investment. It is clear though that this world is not perfect, especially in terms of information dissemination, and market failure has led some scholars to reject this school of thought.

The other school of thought (or the new theory) consists of scholars who develop their theories under imperfect market assumptions. In imperfect market conditions, the monopolist or oligopolist could maximize his profits or enjoy economies of scale through product differentiation. Dunning's (2001) eclectic theory provides the three general conditions that must exist for Multinational Corporations to make across-border investment decisions. These three conditions — Ownership, Location, and Internalization (OLI) — form the centrifugal force around which the independent and intervening variables revolve to determine FDI flows.

Among the independent variables generally mentioned in the literature to be important FDI determinants are: human capital, market size, country risks, deficits, and tax incentives. How significant or not significant an independent variable becomes in a study depends on the kind of study that is being done. This may explain why the literature on FDI determinants is replete with studies lacking in a general consensus on the level of importance of the variables, especially those that relate to fiscal incentives. The level of impact of a host country's fiscal policy on tax incentives depends on the home country's tax treatment of foreign income. There seems to be more impact from host country's tax rate on retained earnings than new funding by a corporation to its affiliates.

Human capital development through education and training is an important attractive force to foreign investors and for a country to really benefit from spillovers from technology, the country must have the necessary absorptive capacity the available technology requires.

III. COUNTRY ANALYSIS

A sectoral economic analysis of the four countries selected to represent the SSA region (Ghana, Kenya, Nigeria, and South Africa) is presented, touching on some of the economic policies and incentives these countries have used to attract FDI. Except when otherwise stated in this chapter, country analysis data have been taken from the following sources of information: The World Factbook; U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Trade Data Bank, 1999; Coopers and Lybrand International Tax Summaries, 1997; and Global Tax Network and World Tax Database (compiled by the University of Michigan).

SSA is a low-income developing region of the world with countries of the region showing mainly similar subsistent-level-agro-based economic structures. Selecting a few countries for analysis will result in an outcome that is representative of the region. For example, Nigeria has been chosen because it is the largest country (population-wise) in the region with abundant human and natural resources that largely remain untapped. Nigeria has oil and other mineral resources along with agriculture to sustain its economy. It is the largest FDI recipient in this region even though the country still remains unattractive to foreign investors due to political instability and volatility in her currency. Nigeria stands in the study as a country with heavy reliance on natural resources to

almost the exclusion of technology advancement resulting in a near stagnant economic development unbefitting the country's size and resources.

South Africa was chosen because it is the most advanced country in the region in terms of economic development as well as one of the countries in this region making meaningful efforts toward a market-oriented economy. South Africa has a more diversified economy than other nations in the region, and FDI inflows are more widely distributed in its economic sectors than any other country in the region. South Africa is essentially the industrial hub of southern Africa and can become the center of economic development from which the other southern African countries can benefit. Nigeria and South Africa are the two nations in SSA consistent with significant FDI flows in the region, and their FDI flows over the years are of similar size.

Ghana has been chosen to represent a country with a success story with regard to economic reforms and improvement in FDI flows, in spite of its limited natural resources and no oil to depend on like Nigeria or Cameroon that do not have strong economies to show for their oil revenue.

Kenya has been chosen for study because it is one of the large countries in SSA with limited natural resources. It has been slow to institute economic reforms.

Scarcity of data and the small size of FDI flows in Francophone countries made selection of any of those countries difficult. Most of these countries, and in particular, the larger ones like Cameroon and Cote d'Ivoire, however, have similar economic features as the Anglophone countries above. The study on the four chosen countries can reasonably be considered representative of the Francophone nations as well.

Ghana

Formerly a British colony called Gold Coast, Ghana achieved its independence in 1957, the first country to do so in Africa. Since independence, Ghana has witnessed a long series of coups, culminating in the suspension of the constitution in 1981 and the banning of political parties. After the new constitution was approved in 1992, Lt. Jerry Rawlings, who had been ruling the country since 1981, won the presidential election in 1992 and re-election in 2000. John Kufuor succeeded him in a free and fair election.

Ghana has a population of 20 million people; the population growing at the rate of about 1.36%. The life expectancy of the total population is 56.27 years and the literacy rate is 74.8%. (The World Factbook, 2002)

Ghana's economy is similar to the other economies of African countries. Like other African countries, Ghana depends heavily on international financing and technical assistance, with subsistence agriculture providing jobs for over 60% of the population work force. Industry and services account for 15% and 25% respectively. Ghana's Gross Domestic Product has been broken down by sector to include: service 39.4%, agriculture 35.2%, and industry, 25% (The World Factbook, 2002).

Ghana has light industries that include mining, lumbering, light manufacturing, aluminum smelting, and food processing. The nation produces agricultural products such as cocoa, rice, coffee, cassava, peanuts, corn, bananas, and exports gold, cocoa, timber, bauxite, aluminum, manganese ore, and diamonds. Capital equipment, petroleum, and foodstuffs are its major imports.

Ghana's main export trading partners are: The Netherlands, United Kingdom, United States, Germany, France, Nigeria, Belgium, and Italy. Import partners are Nigeria, United Kingdom, United States, China, Italy, Cote d'Ivoire, and Germany.

Fiscal Policy

All companies are taxed at the rate of 35%, except companies that engage in non-traditional exports, the hotel industry, all manufacturing companies, and manufacturing companies not located in Accra and Tema, which have rates ranging from 8% to 26.25%. An affiliate of a foreign company is taxed on its profits on the same basis and at the same tax rates as a resident corporation (World Tax Database, 2003).

Kenya

Kenya was ruled by Jomo Kenyata, who was the founding president from the country's independence in 1963 until his death in 1978. When Arap Moi took power, the country became a one-party state from 1969 until 1982 when the ruling party, Kenya African National Union (KANU) consolidated its position as the sole legal party in Kenya. Internal opposition failed to depose the ruling party, but after Moi stepped down in 2002, Mwai Kibaki became president under the National Rainbow Coalition party. What is indicated here, as in most other countries of Africa, is the political turbulence that blew like a wind across the continent for several decades after gaining independence. That turbulence has contributed in no small way to the economic stagnation (relatively speaking) of Africa.

Kenya is a home to over 32 million inhabitants and has a population growth rate of 1.14% and a low life expectancy of 44.94 years. Its literacy rate of 85.1% for the total

population is rather high compared to many other African countries, but its high literacy rate does not seem to have an impact on the country's workforce productivity or the economy.

With a labor force of about 13 million, agriculture remains the dominant occupation of Kenyans, employing 75% of the labor force. The nation's GDP composition by sector shows services to be the largest at 62.6%, followed by agriculture at 19.1%, and industry closely following behind with 18.3%. The GDP real growth rate is a low 1.7%. Economic growth has been hampered by corruption and heavy dependence on primary goods whose prices have been low in the international market for decades (The World Factbook, 2002)

Kenya produces tea, coffee, corn, wheat, sugarcane, fruit, vegetables, and dairy products. It exports tea and other horticultural products, coffee, petroleum products, fish, and cement. Among the imports are machinery and transportation equipment, petroleum products, motor vehicles, iron and steel, resins and plastics.

Kenya's main export partners include Uganda (18.5%), United Kingdom, United States, and the Netherlands. Its chief import partners include United Arab Emirates, Saudi Arabia, South Africa, United States, United Kingdom, France, China, Japan, and India (U.S. Department of Commerce).

Fiscal Policy

Kenya's corporate income tax rate for locally incorporated companies is 35%. Nonresident companies or their affiliates are taxed at the rate of 42.5%, and nonresident petroleum service subcontractors are taxed 42.5% of 15% of service fees they receive. Income from sources outside Kenya is not liable to tax in Kenya, whether or not the

income is remitted to Kenya (exempt country). Kenya has no provisions for consolidation among corporations.

Kenya does not have a capital gains tax; this tax was suspended effective from June 14, 1985. Depreciation is ignored for tax purposes. Capital allowances, usually calculated on a reducing-balance basis, are granted instead. Losses can be carried forward indefinitely but can only be applied against future profits from the same category of income (Coopers and Lybrand International Tax Summaries, 1997).

Nigeria

Nigeria received its independence from Britain in 1960 and became a Republic in 1963. Shortly thereafter a civil war began in 1966 and lasted four years. The political life of Nigeria is reflected in the succession of its leaders since independence. There was military rule characterized by dictatorship from every leader that seized power through a series of coups that span over three decades. The military has ruled Nigeria except during two interludes when civilian rule was allowed. With this kind of political instability and uncertainty, not to mention religious unrest, it is difficult for any kind of meaningful economic growth to take place.

Nigeria's population of 129 million people makes it the largest country in Africa in terms of population size. With an annual growth of 2.54%, Nigeria has one of the highest population growth rates in the world. Unfortunately, Nigeria is one of the nations in SSA with a high level of illiteracy, too. Counting those age 15 and over who can read and write (using the World Group definition), Nigeria scored only 57.1%, even poorer than Cameroon and Kenya. Nigeria relies almost entirely on oil to run its economy; the

capital-intensive oil sector provides 20% of GDP, 95% of foreign exchange earnings, and 65% of its budgetary revenues. Agriculture, which was the mainstay before oil in early 1970s, remains the occupation that still employs over 70% of the labor workforce (World Factbook, 2002).

The subsistence agricultural sector could not support the teaming population of a nation with GDP real growth rate of only 3.5%. Consequently, Nigeria, once a large net exporter of food, now imports food. Nigerian agricultural products include cocoa, peanuts, palm oil, corn, rice, cattle cassava, yams, and rubber. Its export commodities include petroleum and petroleum products (95%), cocoa and rubber, with the United States (46%), Spain (11%), India (6%), France (5%), and Brazil its main export partners (The World Factbook, 2002).

The country's import commodities include machinery, chemicals, transport equipment, manufactured goods, food, and live animals. Its main import partners are the United Kingdom, the United States, France, Germany, and China.

Nigeria has ambitious economic policies that unfortunately usually crumble at the implementation stage. For example, the government might have in place a restraint monetary policy that would focus on price and exchange rate stability and a healthy balance of payments, but the inflation rate (consumer prices) remains remained in double digits during most of the 1990s (U.S. Department of Commerce).

The government continues to formulate fiscal policies that are designed to increase the level of government revenues and to promote overall economic development, but its individual tax revenue base has largely remained untapped.

Fiscal Policy

Corporate taxpayers are required to pay taxes through banks to the Federal Inland Revenues Service — the equivalent of the IRS in the U.S. This was effective January 1996. The capital transfer tax decree was eliminated effective January 1996, and the capital gains tax rate was reduced from 20% to 10%. The corporate income tax rate is 30% (reduced from 40%). The tax rate for petroleum companies is an amount equal to 85% of its chargeable profits of the period in respect of export sales, and at 65.75% of the chargeable profits from domestic sales; there are no local income taxes (Coopers and Lybrand International Tax Summaries, 1997). A branch of a foreign corporation is taxed on the profits of the branch in the same manner and at the same rates as Nigerian corporations.

Depreciation on fixed assets is not allowed as a deduction from profits, but initial allowances (15%) based on cost, and annual allowances (10%), calculated on straight-line method, are granted for qualifying capital expenditures. This is only true if the assets purchased are in use on the last day of the basis period of the relevant year of assessment. Business losses can be carried forward to offset future profits, and capital losses can only be offset by capital gain irrespective of the assets that are sold.

Profits of a pioneer company may be exempt from income tax during an initial period varying from three to five years. There is a tax provision for research and development, subject to a limit of 10% of a company's total profit for the year under consideration.

A positive development in the area of privatization was backed by the establishment of Nigerian Decree No. 25 in July 1996. This was the creation of the

Nigerian Investment Promotion Commission (NIPC), the Bureau of Public Enterprise (BPE), and the National Council on Privatization (NCP) by the Nigerian government. According to Nigeria Business Information (N.B.I, 2002), these actions led to the 51% share sale of Nigerian Telecommunication Limited (NITEL) to investors International Limited, and the granting of a license to Global System.

South Africa

The history of South Africa is that of settlement of diverse groups of people such as the San, Khoikhoi, and the Bantu. The Dutch came to settle in the Cape coast in 1652, and British settlement and annexation of the Cape Colony followed in the 19th century. The Dutch settlers (Boers) resented and resisted the British domination by moving inland to the north of the country. This was referred to as the Great Trek. The battles between the Bantus, and in particular the Zulus, led to the formation of two Boer republics — Transvaal and Orange Free State.

With the victory of the British in the 1899–1902 Anglo-Boer war, the Union of South Africa was declared in 1910 (the year of independence from the British). In 1948, the Afrikaner-led National Party gained power but did not withdraw from the British Commonwealth until 1961. This National Party was the party that eventually built the legal and political framework of apartheid, a system that made separation of races legal and excluded the Blacks who were the majority from participating in the political and economic system. Apartheid was dismantled in the early 1990s and the first multi-racial elections were held in South Africa in 1994 with Nelson Mandela elected as the first president after apartheid.

South Africa is well endowed with mineral and energy resources that form the core of the country's economic activity. A great portion of South African manufacturing is based on the mining of gold and diamonds, which form the bulk of the country's exports.

South Africa's population of 43 million and growth rate of 0.02%, coupled with per capita income of about $3,020, put it as the only country in SSA among the middle-class developing countries. South Africa remains the most advanced, broad-based, and productive economy in Africa, with a Gross Domestic Product (GDP) nearly four times that of Egypt, its closest competitor on the Africa continent. However, its income disparities are among the most extreme in the world. Whites, who form only 13% of the population, live in "first world" conditions, while the Blacks and other minorities which make up 87% of the population, live in "third world" conditions.

South Africa's literacy rate at 85% is one of the highest in the region. It has well-developed financial, legal, communications, energy, and transportation sectors, with a stock exchange that ranks among the 10 largest in the world. South Africa has a modern infrastructure that supports an efficient distribution of goods to urban centers through out the region.

Agriculture employs 30% of the labor force, the lowest agricultural employment level in the region, and its leading agricultural products are corn, wheat, sugarcane, fruits, vegetables, beef, wool, and dairy products. Its main exports commodities are gold, diamonds, platinum, other metals and minerals, and machinery and equipment, with European Union (EU), United States, Japan, and Mozambique as the leading export partners. South Africa's main imports include machinery, foodstuffs and equipment,

chemicals, petroleum products, scientific instruments, with the EU, United States, Saudi Arabia, and Japan as major import partners.

The most impressive economic progress in South Africa is in its industries. With an industrial production growth rate of 7%, South Africa is the leading country in this region in industrial development and one of the most progressive in the world. South Africa's main industries are mining (world's largest producer of platinum, gold, and chromium), automobile assembly, iron and steel, machinery, and foodstuffs.

South Africa's economic policy of liberalization is evident in its new government's efforts to reform a complex tariff structure inherited from apartheid-era governments. For example, the government has been successful in simplifying and reducing its overall tariff code such that the average tariff rate which used to be in excess of 20% has fallen to just over 12%. The government has further refused many industries that used to be protected by non-tariffs barriers any efforts to increase their tariffs to General Agreement on Trade and Tourism (GATT)-binding levels in favor of the more World Trade Organization (WTO)-friendly supply-side measures.

South Africa eliminated all import surcharges in October 1995 and substantially reduced the list of restricted goods requiring import permits as a means of stimulating local industry. In-spite of this effort to conform to the standards of the WTO, the legacy of an import substitution policy supported by high tariffs and import permits has made South African industry remain largely non-competitive on the world market. However, South Africa remains committed to reforms that lead to privatization and favorable investment climate in a market-oriented economy (U.S. Department of Commerce, National Trade Data Bank, September 3, 1999).

Fiscal Policy

Apart from maintaining monetary policies consistent with inflation reduction, the government seeks an acceleration of the fiscal reform process and relaxation of exchange controls. The normal tax for all companies (other than those of gold mining and oil extraction operations and long-term insurance business) is at a flat rate of 35%, and dividends declared out of profits derived by the branch in South Africa attract a 12% tax rate (Secondary Tax on Companies or STC).

There are local income taxes, with rates varying according to region. There are no capital gain taxes. Income tax is levied only on taxable income derived, or deemed to be derived, in South Africa (residence principles) with relief being provided in tax treaties for foreign taxes paid on income deemed to be taxable in South Africa.

Depreciation and depletion allowances are granted on plant, machinery and other articles used for the purpose of trade, but rates allowed vary according to type of asset, life expectancy, and intensity of use (using the straight-line method for the most part). Capital expenditure (including the cost of building) in respect of scientific research and development (R&D) is deductible over four years at 25% per annum; other expenses associated with R&D are deductible in the year incurred. Business losses can be carried over indefinitely and set off against the income of subsequent years until the losses are recouped, provided the taxpayer (if a corporation) continues to carry on business.

Another tax incentive the government released as its macroeconomic strategy to stimulate new investment includes reduction of the corporate taxes, primarily the income tax rate from 40% to 35%. The Non-Resident Shareholders Tax on foreign investors was scrapped in 1995, and the dividend tax (secondary tax) was halved to 12% in March

1996. There is a tax holiday of from 2 to 6 years depending on region, industry, and human resource component. Net operating losses can be carried forward for five years and while there are no withholding taxes for resident corporations and individuals, tax is withheld from certain payments to foreign corporations for nonresident corporations and individuals (Coopers and Lybrand International Tax Summaries, 1997). South Africa also grants incentives for innovations for new products, loans for new investments, venture capital for high-tech development, and medium term loans for manufacturing (Pigato, 2001). Since the main sources of government revenue in South Africa are income taxes and the Value-Added Tax (VAT), both personal and corporate income tax rates remain among the highest in the world.

Summary

The economies and macroeconomic policies of these four selected countries reveal a number of features common among them, which are similar to those found in the other countries of the SSA region. All these countries have small economies when compared with countries in the other regions of the world. They are all in the low-income category (except South Africa which is in the middle income group), and all have low (less than 5%) GDP growth rates, implying slow economic growth. With regard to economic policy, the restraint on monetary policy to contain inflation appears more successful in SSA than efforts in say trade and fiscal policy areas. For example, all the SSA countries, including South Africa, are found inadequate in their trade and fiscal policies. Trade restrictions or barriers are still in place as well as high income taxes and tariffs). With regard to physical infrastructures (roads, railways, airways, financial

institutions, and insurance, etc.) and human capital development, South Africa remains the only country in SSA (and possibly in Africa) that achieves a level of development close to those in the developed countries. All the other countries in SSA have poor physical infrastructures, high illiteracy rates, or little or no plan for human capital development.

IV. METHODOLOGY

Theoretical Model

The theoretical model adopted here is the profit maximization model developed by Jorgensen (1963) ; Jorgensen's theory of investment behavior was based on the neoclassical theory of optimal accumulation of capital and reviewed by Jorgensen and Hall (1967) in their theories of investment behavior and optimum capital accumulation respectively. This model is considered the most useful in estimating the effects of taxation and investment incentives on foreign direct investment (Shah Zahir, 2003, p.12). In his study of FDI in developing countries, Lucas (1993) also adopted Jorgensen's profit maximization model and the generalized Cobb-Douglas production function to evaluate the responsiveness of Foreign Direct Investment to production cost in selected Asian countries.

A major motivational objective of a firm is the maximization of profit, with profit defined as the difference between current revenue and current outlay less the rental value of capital (Jorgenson & Hall, 1967). Embedded in this model is the assumption that a multinational-firm is able to maximize profit through product differentiation across plants and capital is exogenous. This assumption helps distinguish FDI, which is profit oriented and is not controlled by the host government from foreign aid, which is the assistance the governments of high-income countries provide poor countries in the form of food aid,

technical assistance, and financing for construction projects (Beyond Economic Growth [BEG], 2004).

Starting with Jorgensen's functional-form premise that the demand for capital depends on (is a function of) price of capital goods, output, and cost of capital (represented with this equation):

$$K_t = f\ (P_t, Q_t, C_t) \qquad (4.1.1)$$

Where:

K_t = the demand for capital stock at time $_t$

P_t = price of capital goods at time $_t$

Q_t = output at time $_t$

C_t = cost of capital at time $_{t,}$ (and using here the exact phrase and equation Lucas used 1993, p.392), a profit maximizing firm will choose output in each host country ($_h$) to satisfy:

$$\underset{q_h}{\text{Max}} \sum_h p_h\ (q_h)\ q_h - c_h\ (q_h) \qquad (4.1.2)$$

where

q_h = Output in country $_h$

p_h = Price of country's product $_h$

c_h = Total production cost in $_h$

Lucas expanded c_h in the profit maximization equation above by taking into account the expenses (z) — wages, miscellaneous expenses, including political cost, etc. — that can generally be associated with production.

The equation then becomes

$$K_t = f\ (P_t, Q_t, Z_t, C_t) \qquad (4.1.3)$$

where Z_t = a range of expenses as noted above allocable to production in time $_t$.

Since it is assumed that invested capital comes from outside the host country $_h$, it is reasonable to assume that the firm also produces output mainly for export (export-oriented market). The assumptions here point to FDI as the outside capital to distinguish from foreign aid, which is not profit oriented. The firm's production function becomes:

$$FDI_{ht} = f\ (P_{ht}, Q_{ht}, Z_{ht}, C_{ht}) \qquad (4.1.4)$$

Where:

FDI_{ht} = Total FDI in country $_h$ in time $_t$

P_{ht} = Price of product in country $_h$ in time $_t$

Q_{ht} = Quantity of product in country $_h$ in time $_t$

Z_{ht} =Production expenses in country $_h$ in time $_t$

C_{ht} = Cost of capital in country $_h$ in time $_t$.

As indicated in 4.1.3 and 4.1.4, foreign direct investment becomes a function of price of goods produced, the output of the firm, production expenses associated with this output, and the cost of capital, which are mainly interest and taxes.

By applying equation 4.1.4 using the selected independent variables determining FDI, and using Kee Min's (2000) approach to explain the relationships among variables, the connection between FDI and fiscal and non-fiscal factors that affect economic growth comes to light. For example, GDP and Price (P) mainly account for the Quantity of product (Q), production expenses (Z) comprise labor costs (W), political costs (CR),

incentives the host country provides (INC), Cost of Capital (C) will include interest (INT) and tax (TAX).

Equation 4.1.4 becomes: $FDI_{ht} = f(P_{ht}, Q_{ht}, Z_{ht}, C_{ht})$,

Where $P_{ht} = f_1(Q_{ht})$

$Q_{ht} = f_2(GDP_{ht}, P_{ht})$,

$Z_{ht} = f_3\ (W_{ht}, CR_{ht}, INC_{ht})$,

$C_{ht} = f_4,\ (INT_{ht}, TAX_{ht})$, and

Where Q_{ht}, P_{ht} = quantity and price in the country $_h$ in time $_t$

GDP_{ht} = Gross domestic product in country $_h$ in time $_t$

W_{ht} = Labor costs in country $_h$ in time $_t$

CR_{ht} = Country risks in country $_h$ in time

INC_{ht} = Incentives country $_h$ offers in time $_t$

INT_{ht} = Interest rate in time $_t$

TAX_{ht} = Corporate income tax rate in country $_h$ in time $_t$.

The economic factors expressed above showing relationships with foreign direct investment are also interrelated in a social-economic way. In other words, the market forces create the connections between the fiscal and non-fiscal factors in the economy such that the functional relationship between price and quantity is affected by the market size and gross domestic product per capita income. The level of education and skill (human capital) affects income level and human capital formation is ultimately affected by fiscal policy (government expenditure on education).

Extending this to the investment firms' profit maximization objective in country $_h$, 4.1.4 shows that price (P_t) has a functional relationship with quantity produced (Q_{ht}) and

from the viewpoint of the producers, how much quantity to produce (Q_{ht}) is determined by market price (P_t), gross domestic product, and the purchasing power of the population in country $_h$.

Production expenses (Z_{ht}) are comprised of and affected by the labor costs or wages (determined by the wage rate), country risk or political cost, etc. For example, mutiny and other political unrest such as union strikes and student demonstrations (social costs) express themselves in higher expenses for the firms because of the aftermath of such upheavals, property damage or a disruption in production flow.

Incentives and lowering of the corporate tax rate may help improve the profit margins of the firms, but they are costs to the host countries that offer them hoping to get some investment benefits such as spillovers in return. It becomes obvious that for the investing firms to maximize profit, they will need to produce optimal quantity at optimal price.

Jorgensen and Lucas' models adopted here highlight the relationship between the dependent variable and the predictor variables used in this study:

FDI = *f*(CRYRISK, HC, GDP, TAXRATE, DEFICIT), where:

CRYRISK = Country RISK,

HC = Human Capital,

GDP = Gross Domestic Product,

TAXRATE = Corporate Income Tax Rate, and

DEFICIT = Deficit.

This can be re-written in the econometric format to include the parameters and the error term (ε), which takes account of various factors not captured in the explanatory variables.

The econometric form becomes:

$$FDI_{ht} = \beta_o + \beta_1 CRYRISK_{ht} + \beta_2 HC_{ht} + \beta_3 GDP_{ht} + \beta_4 TAX\ RATE_{ht} + \beta_5 DEFICIT_{ht} + \varepsilon_{ht}$$

where:

$CRYRISK_{ht}$ = Country risks in country $_h$ in time $_t$

HC_{ht} = Human capital in country $_h$ in time $_t$

GDP_{ht} = Gross domestic product in country $_h$ in time $_t$

$TAX\ RATE_{ht}$ = Corporate income tax rate in country $_h$ in time $_t$.

$DEFICIT_{ht}$ = Budget deficit in country $_h$ in time $_t$.

ε_{ht} = Random disturbance term.

β = Parameters (β_0 = parameter at the Y-intercept).

This theoretical model looks at investments (FDI) from the firms' perspective, but later the study evaluates the incentives the host countries provide and the spillover potentials they see in so doing. Before that, the hypotheses postulated for testing by the regression estimations are stated below.

Hypotheses

The objective of this study, as mentioned earlier, is to evaluate the impact fiscal policy may have on foreign direct investment determinants in the SSA region and which variable factors, fiscal or non-fiscal would be more attractive to the MNCs in their decision to locate plants in a foreign economy.

In trying to explore the framework leading to a plausible result, the following questions have emerged:

1) Which factors, fiscal or non-fiscal, contribute significantly to FDI growth in the SSA region?
2) What contributions can education and policy make in the economy and FDI growth in SSA?

The following hypotheses therefore have been advanced. Along with each hypothesis is the sign expected from the impact of the explanatory variables on the dependent variable.

HØ 1: A country with high political, financial, and social risks (measured by Country Risk or CRYRISK) tends to be unattractive to foreign investors. Conversely, a more stable country tends to attract more foreign investors than a country that is less stable. The more stable a country is, the safer it appears to capital investors. This is because where there is stability, damage to firms' property and disruption in production will be at a minimum. From the foregoing, country risk can be a positive sign when risk is low or negative sign when risk is high. Either effect is therefore expected on FDI depending on how investors view the host country.

HØ 2: The larger the market (as measured by a country's Gross Domestic Product), the greater the attraction to the MNCs that want to invest. A large market is created out of a population with high income and high purchasing power. This is where the size of the middle class is very important. The size of a nation's middle class can essentially indicate the size of the market in a host country. A large market size (GDP) is expected to have a positive effect on FDI.

HØ 3: Foreign investors tend to seek out countries or regions with accumulation of Human Capital (measured by primary education). The more educated and skillful the workforce the more attractive it is to investors and the greater the chance of spillovers.

In addition, this type of workforce tends to command higher purchasing power, which creates a market for the firms' products. A favorable Human Capital effect on the FDI is expected.

HØ 4: The higher the tax rate (measured by the corporate tax rate), the less attractive a host country is to the multinational firms as taxes cut directly into their profits. A negative effect is expected on the FDI.

HØ 5: Budget deficits tend to discourage foreign investment in a host country as consistent budget deficits tend to point to fiscal indiscipline. A negative effect is expected on FDI.

The parameter estimates of the explanatory variables are examined for their signs (Table 2). A positive sign (+) suggests a possible positive or favorable effect of the independent variable on FDI, the dependent variable. On the other hand, a negative sign (-) is generally seen as a negative effect on the independent variable.

Table 2

Expected Signs of the Explanatory Variables in relation to FDI

Explanatory variable	Expected Signs
Country Risk (CRYRISK)	+ or -
Human Capital (HC)	+
Market Size (GDP)	+
Corporate Income Tax Rate (TAX RATE)	-
Deficit (DEFICIT)	-

Data Sources

The data used to test the impact of fiscal policy on the growth of foreign direct investment in SSA were taken from various sources: Net Foreign Direct Investment and GDP data are from The World Development Indicators (WDI, 2003); Primary School Enrollment data are from the United Nation's Educational, Scientific, and Cultural Organization (UNESCO, 1997–1999); Country Risk data are from the International Country Risk Guide; The World Tax Database was compiled by the University of Michigan; The World Fact Book 2002 and United Nation's Conference on Trade and Development (UNCTAD) various issues from 1996-2001 provide the Corporate Tax Rates of countries in the study. All these sources are internationally recognized for the quality of the data they collect, and this is the reason for choosing these sources.

The data on net foreign direct investment that come from both the WDI and UNCTAD are not the same. While the differences in the data from these two sources might not significantly affect the outcome of the test, they do point to the inevitable anomaly that can arise when different institutions gather and process information differently.

The size of net FDI flows was a factor in choosing a country; the pervasive problem of missing data in Africa has trumped the inclusion of most countries in this study. Countries that have most of the data relevant to this study and have relatively significant FDI inflows over many years were selected. As discussed previously, the selected countries in this study seem to have similar economic and political features that make them a good representation of the entire SSA region.

Analysis Techniques

The four selected countries have 92 observations in a 23-year period (1980-2002). Ordinary Least Squares (OLS) has been used for estimations. Ordinary Least Squares estimations were made first with pooled Time Series data, then for the individual country. To allay the concern over multi-collinearity common with the regression of Time Series data, Ordinary Least Squares has been used which has the advantage of producing unbiased estimation and is not generally susceptible to multi-collinearity, particularly where the number of observations is more than the predictor factors (Kennedy, 1992).

Autocorrelation can be a problem in time series regression as well. One way to address the problem is to eliminate one of the two variables with obvious autocorrelation tendency (Kennedy, 1992). In this study, human capital is highly correlated with per

capita income (CPI) variable, but since human capital has a higher value and effect in the study than CPI, the less significant per capita income was left out.

In addition, the Durbin-Watson test was used for the presence of autocorrelation in the residuals of a regression. The normal range in the Durbin-Watson test is 0.0 to 0.4, and a figure around 2.0 is generally considered median. The test result in the study for the regression equation using pooled data was 1.735 at .05 and .01 levels of significance; this is quite reasonable. It shows that at both levels, autocorrelation is not significant.

Foreign direct investment (dependent variable) was regressed on five explanatory (independent) variables: CRYRISK—country risk (a composite figure for political, economic, and financial features of the country that measures risk); HC—human capital (measured by enrollment in primary school); GDP—Gross Domestic Product, a measure of market size; TAX RATE—tax policy measured by the corporate tax rate, and DEFICIT—budget deficit, which provides some indication of the fiscal discipline of the government in a given year.

The next chapter presents the results of the analyses.

V. ANALYSIS OF THE ESTIMATION AND EMPIRICAL RESULTS

Before analyzing the estimation and empirical results, a general discussion on the times-series graphs below seems appropriate. The trends in Corporate Tax rates and foreign direct investment in the four nations studied were examined.

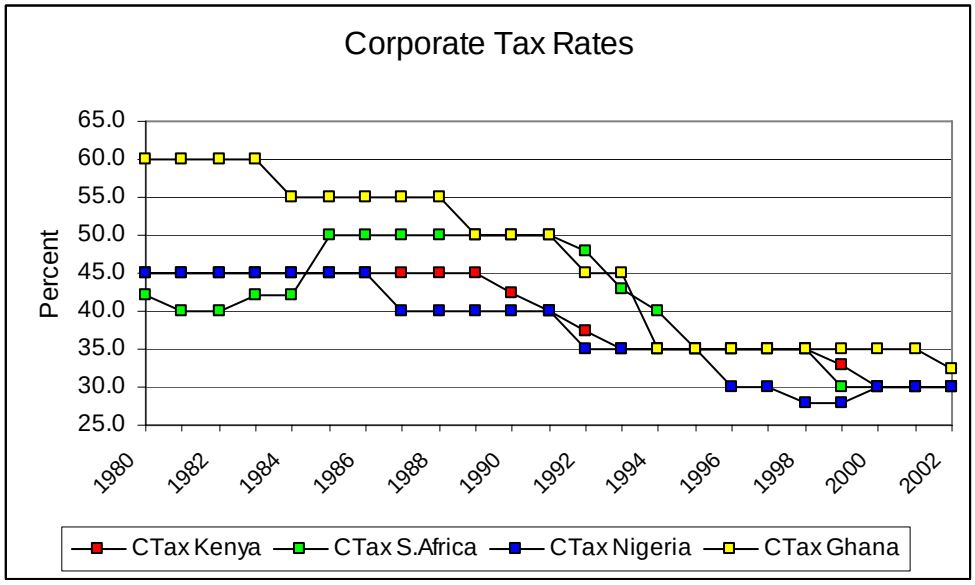

Figure 3. Corporate Income Tax Rate by Country, 1980–2002

From 1980 to 2002 (Figure 3), there were three noticeable periods of SSA corporate income tax rates reduction: 1985, 1990, and 1996. South Africa did not start lowering its corporate tax rate until the early 1990s. This may be because it had the

lowest rate up to 1985, but there were few or no foreign investments at this time in that country because of apartheid policy that brought on a world trade embargo. South Africa raised its tax rate between 1985 and 1993 apparently to make up for declining revenue from sources like gold and diamonds, the country's main exports. One common feature though of the tax pattern in SSA is that over the years, the corporate tax rate has gone down considerably as in other developing countries around the world. For example, the rate was lowered from 42% to 30% in South Africa, 45% to 30% in Nigeria and Kenya, and from 60% to 32% in Ghana. The other three countries as well as the other SSA countries lowered their tax rates mainly during the mid-1980s through the 1990s at a time when the World Bank and International Monetary Fund (IMF) persuaded them to implement the Structural Adjustment Program (SAP) in their economies. The important question, however, is has the lowering of the corporate income tax rate in SSA as a whole and by the individual countries directly impacted FDI flows to this region? The answer might be more apparent than real looking at the FDI flow pattern to this region during the same period.

A look at the FDI flows to South Africa from 1981 to 1993 (Figure 4) shows some volatility, which could be due to frequent divestments during the apartheid era. During apartheid, the political instability and economic embargo on South Africa seem to have affected FDI flows. During this time, it is interesting to note that FDI flows to South Africa were generally lower than the flows to Nigeria, and this trend was reversed after 1994, three years after apartheid was dismantled.

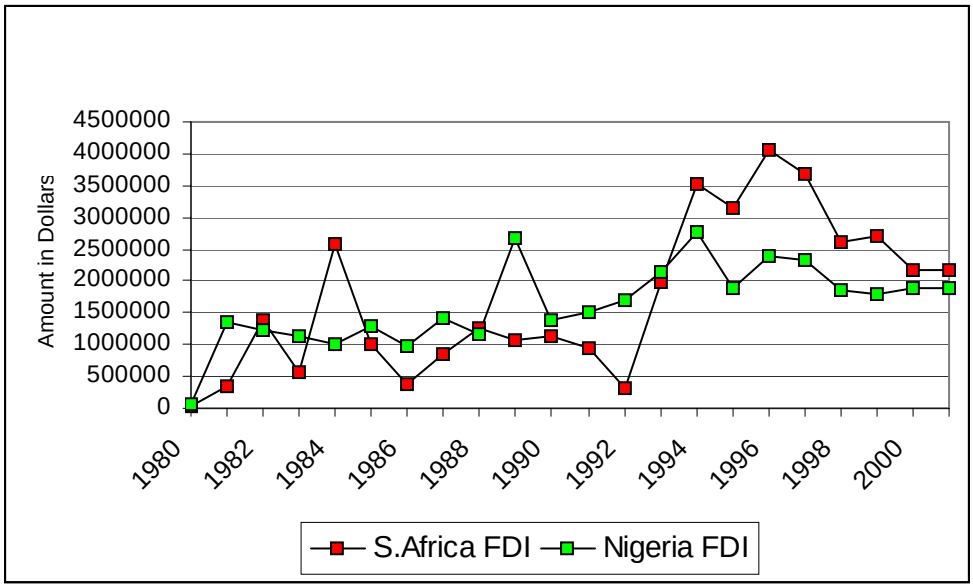

Figure 4. Foreign Direct Investment in South Africa and Nigeria, 1980-2002

The pattern of FDI flows to Kenya and Ghana (Figure 5) show a modest increase over the years up to 1993. After 1993, FDI flows to Ghana saw a jump in 1994 and 1995, and started to fall till 2000 before rising again in 2001. On the whole, FDI flows to Ghana

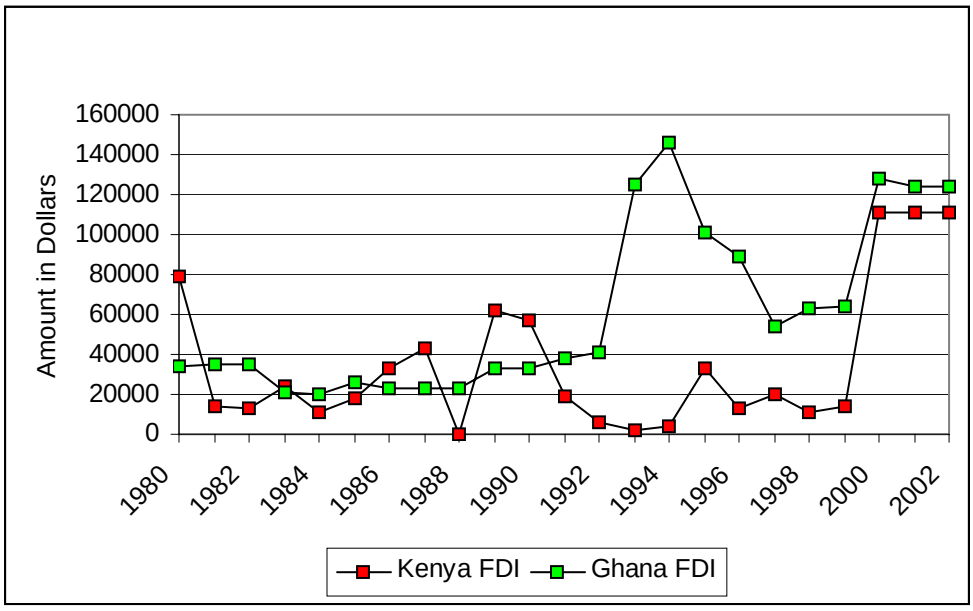

Figure 5. Foreign Direct Investment in Ghana and Kenya, 1980-2002

have shown a steady rise, which could be attributed to that country's economic reforms that began during the Structural Adjustment of mid-1980s.

As Figure 5 also shows, Kenya's FDI flow pattern is different. Even to 2000, FDI flows to Kenya showed great volatility and even declines at times when other countries seemed to be having increases in flows. As was mentioned earlier in the study, Kenya has done little to reform its economy, and it will take more than the lowering of the country's tax rate to see any steady increase in FDI flows to this country.

The analysis of the estimation results is divided into two parts. Part one discusses effects of fiscal and non-fiscal variables on foreign direct investment in SSA. Part two discusses effects of the use of incentives to attract investments into SSA.

Part One: Regression Results (on FDI)

The two main issues identified at the beginning of this study are tested in this chapter: (a) to determine the impact of fiscal policy in Sub-Saharan countries on the determinants of FDI locations, using selected countries, and (b) to examine FDI spillover potential in the SSA economies including identifying the factors that are more likely to contribute to the region's long-run FDI growth.

The results of this study are not intended to show causal effects. R-squared (R^2) measures the amount of variation in the dependent variable that is explained by variations in the independent variables. This empirical testing is, therefore, to see how much the independent variables have assisted in predicting FDI, the dependent variable. In the hypothesis developed, we expected country risk, human capital, and market size to be positively related to FDI, and the corporate tax rate and deficit to be in a negative

relationship. These relationships will first be examined for the pooled data then country by country (see Table 3).

When we examined the estimation, the pooled R^2 shows 72% of the variation was explained, which is quite significant. Equally significant is the R^2 result for the individual countries — South Africa at 74%, Nigeria 73%, Ghana 80%, and Kenya at 60%.

The pooled results coefficient signs came out generally as expected. Ghana has the signs that best fit the model, followed by South Africa and Nigeria. Again, Kenya has the least fit. The pooled results show a similar fitness with South Africa and Nigeria, which suggests a good fit for the model.

All the signs for the estimation came out as expected with the exception of the sign for Deficit. Market Size and Human Capital have positive signs and are significant at .01 and .05 respectively. Country Risk has a positive sign but is statistically insignificant. The Country Risk variable measure uses zero as most risky and 100 as most stable. So, a positive sign on Country Risk indicates FDI is related positively to Country Stability. Corporate Tax Rate has the expected negative sign and is statistically insignificant. Deficit does not show the negative sign expected, but the relationship with FDI was statistically significant at .01. However, increase in deficits from year to year, as we witness in most of these African countries in the last two decades, very much indicate that government control of spending could be lacking (Shoeman, 2000). Whether at the individual or country level, consistent overspending more than the amount taken in tends to have a negative effect on credit ratings. The negative image of Africa is further exacerbated by the poor picture of fiscal indiscipline reflected in the regular budget deficits of many countries in this continent.

Table 3

Regression Results for Foreign Direct Investment Flows to SSA, 1980-2002

Independent Variables	SSA	South Africa	Nigeria	Kenya	Ghana	Prediction
Constant	121.40 (218.12)	1577.89** (463.45)	2355.65 (1891.28)	-2822.55** (719.09)	225.44* (108.05)	
Market Size	.017** (.008)	-0.838** (0.292)	-.129** (.038)	.092** (.022)	-.224** (0.06)	+
Deficit	813.096** (231.85)	139.56 (1217.83)	1247.45** (429.85)	4033.34 (2197.59)	-76.52 (111.62)	-
Corporate Tax Rate	-1.275 (4.041)	-14.80** (3.456)	-52.69 (28.99)	39.54** (8.85)	-3.08** (1.09)	-
Human Capital (Education)	0.023* (.011)	.425* (.200)	.191** (.049)	2.24* (1.06)	.499* (.226)	+
Country Risk	1.101 (1.343)	3.07** (1.148)	16.99** (4.98)	-6.32** (2.64)	.157** (.612)	+
Standardized Coefficients (Beta)						
Market Size	.374	-1.012	-1.396	.853	-.558	
Deficit	.261	.019	.575	.301	-.185	
Corporate Tax Rate	-.023	-.951	-.588	1.081	-.755	
Human Capital (Education)	.326	.569	.634	.808	.522	
Country Risk	.056	.686	.620	-.682	.085	
R^2	.74	.80	.80	.69	.84	
Adjusted R^2	. 72	.74	.73	.60	.80	
N	92	23	23	23	23	
Durbin-Watson	1.74	1.61	2.49	1.85	1.52	

Foreign Direct Investment (FDI) –dependent variable; Standard error in parenthesis
** Statistically Significant at .01 Level
* Statistically Significant at .05 Level

Corporate Income Tax rate has the expected negative sign but is statistically insignificant with the dependent variable. As shown in Figure 3, p. 72, corporate tax rates

in SSA have been going down in the last two decades, but they are nevertheless among the highest in the developing regions. The negative sign thus supports the hypothesis that high taxes can have a negative influence on FDI decisions.

Investors see a high corporate tax rate as a production cost issue, which affects FDI decisions on where to locate their plants. The impact of this tax is usually greater when competing host countries have similar locational factors. For the host country too, a high tax may encourage tax evasion and discourage local investments.

The result shown by Country Risk was surprising. While the individual country's results differ, the pooled data on country risk has a positive sign but a statistically insignificant result. However, foreign direct investment is industry or firm specific, which means that risk in the country where a firm could be located is a more important consideration than the general investment potential of a region.

Human Capital (education) and Gross Domestic Product (market) results fit the predictions, with the two explanatory variables not only showing the expected positive signs, but their relationships with FDI are significant at .05 and .01 levels respectively, (see Table 3).

The Standardized Coefficients (Betas) indicate about the weight of each individual independent variable in a group test. It is quite clear here that all the variables in the test carry some significant weights. While the result for the individual countries differ, generally, market size and human capital seem to carry more weight in the FDI determinant in SSA.

Corporate Income Tax seems to have a heavy weight in each of the countries. The results show that the tax variable has about the same weight as market size in each

country, but their relative weights have an inverse effect on the economy. A high corporate rate discourages investments but a large market tends to attract investments. Deficit has the least weight across the board, but over all, their combined weights show a good fit for the model since they explain significant variations on the dependent variable.

Country Results

South Africa

The individual country results present a different picture. In South Africa, all the independent variables are statistically significant except Deficit. Market Size had .003 level of statistical significance, Human Capital .049, and Country Risk .016. Contrary to Shoeman's (2000) finding, this study finds deficit not to be significant, and the negative sign of Corporate Tax Rate (statistically significant) implies that raising the corporate tax rate can hurt the country in terms of foreign and domestic investments. South Africa, like the other countries in Africa, has been taking some economic reform initiatives but in order to compete more successfully with other countries for FDI, may still need to do more in the fiscal policy area.

Kenya

Market Size, Human Capital, Deficit, and Country Risk are very important for Kenya to attract foreign investment, according to the results. Market Size had a .001 significant level, Human Capital was statistically significant at the .05 level, and Country Risk was also at the .05 level of significance. Deficit was not significant but Corporate Tax Rate at .000 level was highly significant statistically. Kenya still has one of the highest corporate tax rates in the region, and the negative sign indicates that a high tax rate can hurt the economy with respect to foreign investments.

Nigeria

The results for Nigeria indicate that country risk, Human Capital, Market Size, and Deficit are impacting factors. Corporate Tax Rate is not at the .01 or .05 level of significance. Human Capital (Education) and Country Risk are at the .001 and .003 level of significance respectively.

Market Size, which has a negative sign, showed a .003 level of significance. This could mean Nigeria might have a large population size but has no large market because of the nation's low purchasing power. In essence, the size of a population is mostly relevant not by its potentials but to the extent of its real purchasing power, that is, being able to attain the middle class level is crucial to building the market size.

Ghana

Ghana shows that Market Size, Human Capital, and Corporate Tax Rate are statistically significant at the .01 level. Deficit and Country Risk are not significant. The high coefficient (Adjusted R^2 of .80) for Ghana indicates that FDI flow to the country is robustly explained by the explanatory variables**.**

Part Two: Regression Results (on Incentives and Spillovers)

Sub-Saharan countries provide incentives to attract foreign investors and in return hope to receive some benefits of FDI, mainly in the form of technology spillovers (Shah Zahir, 2003, p. 3). While it is very difficult to track the cost of incentives, the results of interrupted time-series analyses, Table 4 through Table 7, show that altering tax incentives does not constitute a strong factor in raising FDI. The modest growth of FDI in these selected countries does not seem to have any clear link or linear relationship with

the decrease in tax rates since the 1980s. Of the four countries selected, only results from South Africa and Ghana show that tax change has some impacts on FDI. In other words, corporate income tax rate as the independent variable has not significantly explained the variations in the foreign direct investment in SSA.

Table 4

Interrupted Time Series Analyses of Tax Rate Impact on FDI in Kenya, 1980–2002

Years in Equation: 1980-1996, 1986-1998 and 1993-2002			
Year Rate Changed: 1991		1993	1999
Constant	2.65	4.26*	-0.70
	(1.48)	(1.71)	(2.72)
Time	0.10	-0.28	0.83
	(0.22)	(0.38)	(0.70)
Short-Run	-1.87	-3.13	3.76
	(2.59)	(2.27)	(4.16)
Long-Run	.04	1.18	-1.36
	(.59)	(0.68)	(1.48)
R^2	.19	.32	.55
Adjusted R^2	.01	.09	.32
N	17	13	10

Foreign Direct Investment-dependent variable, Standard Error in parenthesis
** Statistically Significant at .01 Level
* Statistically Significant at .05 Level

Kenya reduced its corporate tax rate from 45% to 40% in 1991, to 35% and 30% in 1993 and 1999 respectively and both in the short and long run showed a statistically insignificant result. This result is expected since Kenya's problem in attracting FDI might

not be fiscal policy related alone. The overall environmental policy could be unattractive to investments.

Nigeria made some noticeable tax policy changes in 1987, 1992 and 1996, lowering the corporate tax rate to 40%, 35%, and 30% respectively from a 1980 figure of 45%.

Table 5

Interrupted Time Series Analyses of Tax Rate Impact on FDI in Nigeria, 1980–2002

Years in Equation: 1980-1992, 1987-1997, and 1991-2002			
Year Rate Changed:	1987	1992	1996
Constant	66.83	150.35*	145.96 **
	(43.46)	(56.22)	(43.55)
Time	8.39	4.30	17.96
	(9.72)	(16.95)	(13.13)
Short-Run	26.80	17.63	16.10
	(59.32)	(64.92)	(47.60)
Long-Run	-5.02	4.49	-41.99*
	(15.67)	(21.25)	(15.30)
R^2	.39	.34	.64
Adjusted R^2	.19	.06	.51
N	13	11	12

Foreign Direct Investment-dependent variable, Standard Error in Parenthesis
** Statistically Significant at .01 Level
* Statistically Significant at .05 Level

The empirical result in Table 5, however, showed that tax reduction has not impacted the growth of FDI, and in most of the years showed negative long-term effects. Lower revenue due to low corporate income taxes could mean smaller allocations to

education and manpower development, which we all know attract FDI. But Nigeria, in spite of its record on corruption and high risk with regard to investment, remains one of the leading recipients of FDI in Africa.

South Africa made four noticeable tax policy changes in 1984, 1992, 1995, and 1996. The country actually increased its tax rate in 1984 from 42% to 50%. The increase in corporate income tax in this year showed (Table 6) a long run negative sign even though it was not statistically significant. This shift in policy is difficult to explain, but it was the apartheid era when divestment in the country was encouraged because of that country's discrimination against the black majority. In 1990, Nelson Mandela was released from jail and the apartheid policy abolished, and in 1992, 1995, and 1999, the corporate tax rate was reduced from 50% to 40%, 35%, and 30%, respectively. The 1995 tax reduction's long-term impact was statistically significant and negative in sign (Table 6). The visible increase in investment activities after tax reduction was not due to reduction in the corporate tax rate alone. That apartheid was abolished also testifies to the impact of country risk, and while fiscal changes may be necessary in South Africa (Shoeman, 2000), the overall macro-economic policy changes seem to have more effect.

Table 6

Interrupted Time Series Analysis of Tax Rate Impact on FDI in South Africa, 1980–2002

Year in Equation:	1980-1989	1985-1997	1990-2000	1994-2002
Year Rate Changed:	1984	1992	1995	1999
Constant	-7.66	72.68	-15.24	378.40**
	(83.73)	(47.77)	(77.70)	(50.03)
Time	26.55	5.58	57.82*	-12.94
	(30.57)	(10.68)	(23.43)	(15.08)
Short-Run	83.11	-59.89	131.52	-43.37
	(85.57)	(65.21)	(89.72)	(69.13)
Long-Run	-44.52	59.03**	-86.36*	-3.33
	(34.67)	(17.22)	(29.37)	(26.13)
R^2	.39	.86	.74	.72
Adjusted R^2	.08	.82	.62	.56
N	10	13	11	9

Foreign Direct Investment-dependent variable, Standard Error in Parenthesis
** Statistically Significant at .01 Level
* Statistically Significant at .05 Level

Improving the macro economy through policy always has been shown to have greater impact in attracting FDI in developing countries. Ghana, for example, made four noticeable tax policy changes in 1984, 1989, 1992, and 1994, reducing its corporate tax rate from 60% in 1980 gradually to 30% in 2002.

Table 7

Interrupted Time Series Analyses of Tax Rate Impact on FDI in Ghana, 1980–2002

Year in Equation:	1980-1989	1984-1995	1987-1997	1989-2002
Year Rate Changed:	1984	1989	1992	1994
Constant	4.11**	2.25	1.83	-0.88
	(0.55)	(2.56)	(3.57)	(3.33)
Time	-1.40	0.03	0.40	2.10
	(0.20)	(0.77)	(1.08)	(0.10)
Short-Run	-0.59	-2.36	6.27	0.57
	(0.56)	(2.79)	(4.12)	(3.21)
Long-Run	0.56*	1.82	-0.65	-2.33
	(0.23)	(0.90)	(1.35)	(1.24)
R^2	.64	.78	.57	.52
Adjusted R^2	.46	.70	.39	.37
N	10	12	11	14

Foreign Direct Investment-dependent variable, Standard Error in Parenthesis

** Statistically Significant at .01 Level

* Statistically Significant at .05 Level

The corporate tax variable regressed on FDI showed significant results, .05 statistically significant showing on the long run in 1984 (Table 7), the negative sign in the short-run in that year not withstanding. This is not surprising. Where a country has been making meaningful general economic reforms, as Ghana had been in the previous decade, lowering of taxes as an integral part of its overall reform initiatives will help improve the prospect of FDI flows. This means along with other economic measures, Ghana's tax policy is in the right direction in attracting FDI. The spillover benefits to the country, however, will heavily depend on the country's level of development in human capital, which as of now is still low.

VI. CONCLUSION

The global growth of foreign direct investment and its centre stage as a major source of financing in the last three decades has been a source of fascination to scholars. The trend and glaring inequality in FDI global distributions have also raised scholars' concerns enough for them to want to find possible reasons and answers including probing government policies and economic environments and their effects on investors' FDI decisions. The studies in the literature found that global distribution of foreign direct investment is not even between the developed countries and the developing countries, but more disturbing is the greater inequality in the distribution among the developing countries. Many FDI studies on Asian, Latin America and the Caribbean regions show they are doing quite well on the distribution board, and the few done on Africa show that the continent as a whole, with Sub-Saharan Africa in particular, has fallen far behind in the share of FDI flows.

That there are a few FDI studies on Africa might not be unconnected with the scarcity of relevant data and their reliability. Record keeping is still not popular in Africa, and loss of records is not uncommon, which makes it difficult for researchers to gather data for a reasonable length of time without lost years. I found during the course of this study that the average figures had to be used at times in order to avoid missing data scenarios, which make the result of this study's analyses less accurate than what they

should have been. Another impact of the data scarcity and lack of reliability is found in the selection of the independent variables. Some independent variables such as trade openness and exchange rate are not used in this study, and even though some studies have shown that these variables do impact FDI location decisions in developing countries, their exclusion in this study has not diminished or affected the findings of the study. Greater trade openness, (Haveman, Lei, & Netz, 2001) and a stable exchange rate, (Buch, 2000) in Sub Saharan Africa are likely to increase international trade in the region and that will consequently attract FDI.

The few previous studies on FDI determinants in Africa came up with numerous factors to explain why the continent lags in FDI, including the suggestions on what could be done to accelerate economic growth and FDI growth. Based on the analysis of these studies and empirical analysis of the factors we believe are core to FDI growth in SSA, the present study concludes that improved fiscal policy on human capital is healthy for the region's economy and FDI growth. In analyzing the variables in the study, while variations occurred within the individual countries, on the whole, human capital and market size seem to show the most promising potentials for economic development and FDI growth in SSA both in the short and long run. Human capital is particularly important because it is seen as an engine of growth, and for low income developing countries in SSA to obtain the benefits of technology spillover, their stock of human capital has to be increased to the required threshold that would allow spillover to be possible. This is no surprise because for centuries, education has been the door to knowledge and human progress. Education enables a country's workforce to be more productive through training, increases earning capacity and labor mobility, facilitates

redistribution of income, and alleviates poverty. Education in essence helps to build the middle class and the market by increasing a country's absorptive capacities (thereby narrowing the technology gap between developed and developing countries) through an increase in its stock of human capital.

Discussion

The discussion on how SSA is handling and how it should handle education of its people is important at this juncture. If spillover effects have been identified as one of the most important benefits accruing to domestic firms, and if spillover is an important mechanism through which FDI promotes growth in a host country (Fan Emma Xiaoqin, 2002), what efforts are countries in this region making to get spillover benefits through development of their own people?

As stated earlier, both market size and human capital were consistently significant in this study. They both indicated a strong positive showing both in the region as a whole and in the individual country. This supports the findings in the literature that market size and human capital are some of the most important considerations of the MNCs in their FDI decisions. Human capital is important in increasing market size through per capita income increase. In addition to yielding higher productivity, human capital development facilitates labor mobility and improves quality of life.

In their study of factors that contribute to national wealth, Dixon, John A. & Hamilton, K. (1996) found that human resources (labor, human capital, and social capital) produce more wealth for a nation than any other resources, (p.4). In another study that examines the importance of absorptive capacities of host economies in

capturing spillover gains from FDI flows, Iyer, Krishna G., Rambaldi, Alicia N. and KiTang Kam (2004, p. 2), found that among the various measures of absorptive capacity they considered, only human capital was found to be important.

But despite these benefits of education, little progress has been made in SSA. The average educational attainment levels were significantly lower during the 1960-1990 period than in other developing regions; the average number of years of primary school attainment was 1.42 in SSA compared with 3.0 for Latin America and East Asia (Grier, 2001, p. 1). According to Chowdhury, Kowsar P. (No date), the global illiteracy rate of about 40 percent in 1970 dropped to 25 percent in 1990 but in developing countries, and in particular SSA, the total number of illiterate adults is still increasing; only 9 out of 39 Sub Saharan African countries experienced a decline in illiteracy percentage during the 1980s.

What these observations point to is that while SSA countries may have the potential like any other developing regions to absorb spillovers FDI, they currently lack the absorptive capacities engendered by endowment of large stock of human capital.

For example, Glewwe (1991) in (Grier, 2001 p.4) reports that the private return to primary schooling in Ghana is extremely small, as it is in Zambia. Nigeria, Zimbabwe, and Kenya are among the lower income countries Iyer, Rambaldi, and Tang (2004) addressed in their study. They find that the reform effects in these countries have not resulted in increased FDI flows, and the level of such flows did not seem to have any impact on macroeconomic performance (p. 15). The conclusion they reached agreed with Blomstrom and Kokko (2003) that lower income countries have failed to reach the implied “thresholds” required to benefit from FDI spillovers.

The implications are there for governments of the SSA region to consider. If SSA is to see appreciable growth in foreign direct investment and have spillover benefits, there may need to be a paradigm shift in the government policies as well.

The economy of Africa as a whole has relied on a subsistence agriculture system that has not changed for centuries, but as Hamilton and Dixon (1996, p. 6) have pointed out, human resources, including raw labor, are the dominant component of wealth, comprising between 40 and nearly 80 percent of the total wealth in all regions of the world.

SSA should reappraise its fiscal policy approach by laying more emphasis on the education of its people and less emphasis on fiscal incentives as the major means of attracting FDI. To integrate into the global community in development, Africa will need to benefit from technology spillovers, and the way to attain spillovers is through an increasingly educated workforce.

To achieve that, Africa poor countries will need more assistance from the wealthy nations to help them get out of the economic quagmire most of them are in now. One way the wealthy nations have been helping these poor developing nations is through foreign aid, which as mentioned above, has been dwindling since mid-1990s. Foreign debt burden has been increasing in Africa during the same period. According to The *New York Times* (October 8, 2004), 32 of the 38 countries eligible for the Heavily Indebted Poor Countries treatment are in Africa, and the debt burden is having adverse effects on economic growth and poverty reduction in these countries. For example, Sub-Saharan Africa pays $15 billion a year in debt service, an amount that is four times what the region spends on health, enough to fight AIDS, and more than what it gets in foreign aid

(*New York Times*, 2005) cited in Global Policy Forum. With this kind of burden, it is easy to see why most of these poor countries have continuous budgets deficits. The agreement by the U.S. and Britain on relief to poor nations reported by the *New York Times* (June 10, 2005) was the good news from the Group of 8 (G8) summit in Gleneagles, Scotland that provided some breathing space for these poor nations. Credit also goes to President Olusegun Obasanjo of Nigeria whose relentless crusade for debt relief for poor nations helped to push the issue up on the G8 agenda. According to the *New York Times* report mentioned above, the G8 plan would free 18 countries from obligation to repay an estimated $16.7 billion they owe. This would free money for economic development, health, education, and other social programs. Poor countries need aid since aid contributes to both economic growth and human development (Kosack and Tobin, 2003). Aid and debt relief (essentially another form of aid) can be channeled toward funding health and education, the two social programs that bring developing nations closer to the level of social and economic skill needed to enjoy the benefits of FDI spillover.

The G8 plan to grant debt relief has come with some conditions: these poor countries must move toward political reforms that will put democratic governments in place. They must also allow free trade and private investment, conditions given by the Bush administration because they "are more powerful tools for economic growth than government aid" (*New York Times*, June 10, 2005). There is no doubt that in the long run, free trade and privatization will help poor countries toward economic recoveries, but for increases in aid to spur more immediate economic recoveries and poverty reduction, these countries need to fully participate in the free trade and private investment.

It would appear that tying debt relief to improvements in education, health, and other social areas would be the best way to prepare these developing nations towards free trade and private investment.

Future Studies

Future research issues that might be looked into with respect to FDI growth in SSA will include conducting more empirical studies on FDI and spillovers. So far, most of the studies done on this topic in the developing countries have focused on Asian and Latin American manufacturing firms and inferences made only occasionally on the SSA situation. Since major manufacturing firms are few in SSA (except in South Africa) and most countries are exporters of primary products and importers of finished products, a future study on the effects of trade on spillovers might be appropriate also.

REFERENCES

Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American Economic Review, 89*(3).

Akcay, S. (2001). Is corruption an obstacle for foreign investors in developing countries? A cross-country evidence. *Yapi Kredi Economic Review, 12*(2), 27–34.

Akhtar, M. H. (2000). The determinants of foreign direct investment in Pakistan: An econometric analysis. *Lahore Journal of Economics, 5*(1), 1–22.

Altshuler, R., & Grubert, H. (2001). Where will they go if we go territorial? Dividend exemption and the location decisions of U.S. multinational corporations. *National Tax Journal, 54*(4), 787–809.

Aristotelous, K. & Fountas, S. (1996). An empirical analysis of inward foreign direct investment flows in the EU with emphasis on the market enlargement hypothesis. *Journal of Common Market Studies, 34*(4), 571–583.

Asafu-Adjaye, J. (2000). The effects of foreign direct investment on Indonesian economic growth, 1970-1996. *Economic Analysis & Policy, 30*(1), 49–62.

Asiedu, E. (2002). On the determinants of foreign direct investment to developing countries: Is Africa different? *World Development, 30*(1), 107–119.

Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1999). Foreign direct investment as an engine of growth. *Journal of International Trade & Economic Development, 8*(1), 27–40.

Banga, Rashmi. (2003). Impact of Government Policies and Investment Agreements on FDI Inflows, Indian Council for Research on International Economic Relations, *Working Paper No*. 116, 1–47.

Bardesi, H., Davies, S., & Ozawa, T. (1997). Economic determinants of foreign direct investment in oil-exporting countries: The case of Saudi Arabia. *Journal of Emerging Markets, 2*(2), 45–57.

Barro, Robert J. (1990). Government Spending in a Simple Model of Endogenous Growth. *Journal of Political Economy, vol*. 98, pp. S103–25.

_____, & Sala-i-Martin Xavier, (1997). Technological Diffusion, Convergence, and Growth, *Journal of Economic Growth*, 2: 1–27.

Becker, E. & Stevenson Richard W., (2005). U.S. and Britain Agree on Relief to Poor Nations, *Archive: New York Times,* June 10, 2005.

Bende-Nabende, A.(2002). Foreign direct investment determinants in Sub-Sahara Africa: A co-integration analysis. *Economics Bulletin, 6*(4), 1–19.

Bennell, Paul. (1997a). "Foreign direct investment in Africa: rhetoric and reality", *SAIS Review (Summer/Fall),* pp.127–139

Beyond Economic Growth, 2004. An Introduction to Sustainable Development Second Edition

Bilsel, A., & Oral, O. (1995). The role of education, science and technology in developing countries. *Gazimagusa*, North Cyprus: Eastern Mediterranean University (via Mersin 10, Turkey).

Blomstrom, Magnus & Kokko, Ari, (2003). Human Capital and Inward FDI. *Working Paper* 167, Stockholm School of Economics, Sweden.

Blonigen, B. A. (1997). Firm-specific assets and the link between exchangerates and foreign direct investment. *American Economic Review, 87*(3), 447–465.

Borensztein, E., De Gregorio, J., & Lee, J-W. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics, 45*(1), 115–135.

Boskin, M. J., & Gale, W. G. (1986). New results on the effects of tax policy on the international location of investment. *National Bureau of Economic Research Working Paper* 1862.

Brewer, T. (1993). Government policies, market imperfections, and foreign investment. *Journal of International Business Studies, 24*(1).

Buch, Claudia M. (2000). Why Do Banks Go Abroad?—Evidence From German Data. *Financial Markets, Institutions & Instruments,* Vol. 9(1), 33-67.

Chakrabarti, A. (2001). The determinants of foreign direct investment: Sensibility analyses of cross-country regressions. *Kyklos, 54*(1), 89–113.

Chakrabarti, R., & Scholnick, B. (2002). Exchange rate expectations and foreign direct investment flows. *Weltwirtschaftliches Archiv [Review of World Economics], 138*(1), 1–21.

Cheng, L. K., & Kwan, Y. K. (2000). What are the determinants of the location of foreign direct investment? The Chinese experience. *Journal of International Economics, 51*(2), 379–400.

Chowdhury, Kowsar P. (no date) Literacy and Primary Education, *Human Capital Development and Operations Policy*, *HCO WP 50*.

Chudnovsky, D., & Lopez, A. (1997). Market or policy driven? The foreign direct investment boom in Argentina. *Oxford Development Studies, 25*(2).

Chudnovsky, Daniel & Lopez, Andres. (1997). Market or Policy Driven? The Foreign Direct Investment Boom in Nigeria. *Oxford Development Studies*, *25*, Issue 2.

Clare, G. (1992). The impact of exchange rate risk on the foreign direct investment of U.S. multinational manufacturing companies: Some further results. *Open Economic Review, 3*(2), 143–163.

Collier P. & Pattillo C. (2000). Investment Risk in Africa Basingstoke: MacMillan and New York: St. Martin's Press

Coopers and Lybrand International Tax Summaries, (1997).

Cortright, Joseph. (2001). New Growth Theory, Technology and Learning, A Practitional Guide. *Reviews of Economic Development Literature and Practice:* No. 4, Impresa, Inc. 1424 NE Knott St., Portland, OR 97212

Court, Julius & Toru, Yanagihara. Toru. Asia and Africa into the Global Economy: Background and Introduction. Cited http://www.unu.edu/HQ/academic/Pg _area4/August-intro.html

Cushman, D. O. (1987). The effects of real wages and labor productivity on foreign direct investment. *Southern Economic Journal, 54*(1), 174–185.

Dees, S. (1998). Foreign direct investment in China: Determinants and effects. *Economics of Planning, 31*(2–3), 175–194.

De Mello, Luiz R. Jr. (1997). Foreign Direct Investment in Developing Countries and Growth: A Selective Survey. *Journal of Development Studies*, *34*(1), 1–34

Dixon, J. A., & Hamilton, K. (1996). Expanding the measure of wealth. *Finance & Development,* December 1996.

Dunning, J. H. (1998). Globalization and the new geography of foreign direct investment. *Oxford Development Studies, 26*(1), p47, 23p, 7charts.

———. (2001). The Eclectic (OLI) Paradigm of International Production: Past, Present, and Future, *International Journals of the Economics of Business*, *8*(2), 173–190.

Easson, A. (2001). Tax incentives for foreign direct investment, Part I: Recent trends and countertrends. *International Bureau of Fiscal Documentation, 55*(7), 266–274.

Economic Committee Document, (1998). Enhancing the Investment Environment In Africa *GCA/EC/N*.2/3/1998.

Edmiston, Kelly D.; Mudd, Shanon; & Valev, Neven T. (2000). Incentive Targeting, Influence Peddling and Foreign Direct Investment. International Studies Program, Working Paper 00-7.

Ericsson, Johan & Manuchehr, Irandoust. (2000). On the Causality Between Foreign Direct Investment. *International Trade Journal, 14*(4), 1–32.

Fan, Emma Xiaoqin. (2002). Technological Spillovers From Foreign Direct Investment—A Survey. Asian Development Bank. *ERD working Paper No. 33.*

Feenstra R.C. & Hanson G. H. (1995). Foreign Direct Investment and Relative Wages : Evidence from Mexico's Maquiladoras NBER Working Paper No W5122

Forsyth, D. (1972). *US Investment in Scotland*, New York: Praeger.

Franklin R. Root (1994). International Trade and Investment. *Cincinnati*: *South-Western Publishing*, 1994, 7th edition.

Gonzalez-Vigil, F. (2001). Trade policy and investments location: The effects of Peru's tariff structure in the 1990s. *Integration & Trade, 5*(14), 29–69.

Gorg, H., & Wakwlin, K. (2002). The impact of exchange rate volatility on US direct investment. *Manchester School, 70*(3), 380–397.

Grier, Robin M. (2001). Spillover Effects of Investment and Education in Sub-Saharan Africa. Department of Economics University of Oklahoma.

Griffith-Jones, S., & Stallings, B. (1995). New global financial trends: Implications for development. *Journal of Interamerican Studies & World Affairs, 37*(3), PGS.

Guardian, Lagos, Nigeria 2004/May 26/30 Issue.

Harris, Richard Ian & Robinson Catherine. (2002). Productivity Spillovers to Domestic Plants from Foreign Direct Investment: Evidence from UK Manufacturing, 1974-1995, ***Royal Economic Society,*** No 96, Royal Economic Society Annual

Conference, University of Durham and Portsmouth, UK. JEL Codes JEL-L JEL-O JEL-D

Hartman, D. (1984). Tax policy and foreign direct investment in the United States. *National Tax Journal* (December), 475–487.

Havemand, J. D., Lei, V., & Netz, J. S. (2001). International Integration and Growth: A Survey and Empirical Investigation. *Review of Development Economics, 5*(2), 289–311.

Head, K., & Ries, J. (1996). Inter-city competition for foreign investment static and dynamic effects of China's incentive areas. *Journal of Urban Economics, 40*(1), 38–60.

Henley, J., & Kirkpatrick, C. (1999). Foreign direct investment in China: Recent trends and current policy issues. *World Economy, 22*(2), 223–244.

Hines, J. R. Jr. (1996). Altered states: Taxes and the location of foreign direct investment in America. *American Economic Review, 86*(5), 1076–1094.

Hines, J. R. Jr., & Rice, E. M. (1994). Fiscal paradise: Foreign tax havens and American business. *Quarterly Journal of Economics, 109*(1), 149–182.

Hubert, F., & Pain, N. (2002). Fiscal incentives, European integration and the location of foreign direct investment. *Manchester School, 70*(3), 336–363.

Hummels, D., & Stern, R. M. (1994). Evolving patterns of North American merchandise trade and foreign direct investment. *The World Economy, 17,* 5–29.

Hooker, R. (1996). The European enlightenment. *World civilizations* home page. Retrieved.

International Country Risk Guide (2003), Published by The PRS Group, Inc.

Ireland, Peter N. (1994). Two Perspectives on Growth and Taxes. *Federal Reserve Bank of Richmond Economic Quarterly*, 80(1), 17p

Iyer, Krishna G. ; Rambaldi, Alicia N. ; & Tang Kam Ki. (2004). Measuring Sillovers from Alternate Forms of Foreign Investment, Centre for Efficacy and Productivity Analysis, School of Economics, University of Queensland, St. Lucia, Qld. 4072 Australia

Jalilian H. (1996). Foreign investment location in less developed countries: Theoretical framework. *Journal of Economic Studies, 23*(4), 18–30.

Jerome-Forget, M. (1997). Investing in human capital. *Policy Options,* July/ August 1997.

Jorgensen, Dale W. (1963). Capital Theory and Investment Behavior, *American Economic Review,* 53, 247–259.

Kaplinsky, R. (1995). Capital intensity in South African manufacturing and unemployment, 1972–1990. *World Development, 23*(2), 179–192.

Kennedy, Peter. (1992). *A Guide to Econometrics, Third Edition*, The MIT Press Cambridge, Massachusetts.

Kirk, Haniltz & Divan, John A. (1996). Expanding the Measure of Wealth, http://www.worldbank.org/fandd/english/1296/articles/041296.htm

Kinoshita, Y. & Campos, N.F. (2001) Foreign Direct Investment as Effective Technology Transferred: Panel Evidence from the Transition Economies, http://www.cepr.org/meets/wkcn/2/2302/papers/campos.pdf

Knight, Frank H, (1994). Diminishing Returns from Investment, *Journal of Political Economy, 52*, 26–47.

Kosack, Stephen & Tobin Jennifer. (2003). Funding Self-Sustaining Development: the Role of Aid, FDI and Government in Economic Success. Paper for Presentation at the Leitner Political-Economic Seminar.

Kuemmerle, W. (1999). The drivers of foreign direct investment into research and development: An empirical investigation. *Journal of International Business Studies, 30*(1), 1–24.

Kumar, N. (1996). Intellectual property protection, market orientation and location of overseas r&d activities by multinational enterprises. *World Development, 24*(4), 673–688.

List, J. A. (2001). US county-level determinants of inbound FDI: Evidence from a two-step modified count data model. *International Journal of Industrial Organization, 19*(6), 953–973.

Lloyd, P. J., & MacLaren, D. (2000). Openness and growth in East Asia after the Asian crisis. *Journal of Asian Economics, 11*(1), 89–105.

Love, J. H., & Lage-Hidalgo, F. (2000). Analysing the determinants of US direct investment in Mexico. *Applied Economics, 32*(10), 1259–1267.

Lucas, Robert E.B. (1993). On the Determinants of Direct Foreign Investment : Evidence from East and Southeast Asia. *World Development*, *21*(3), 391–406.

Lucas, R.E. (1988). On the Mechanics of Economic Development. *Journal of Monetary Economics, 22,* 3.

Luiz, R. Jr. (1997). Foreign direct investment in developing countries and growth: A selected survey. *Journal of Development Studies, 34*(1).

Markusen, J. R. (1998). Developing countries' stake. Department of Economics, University of Colorado and *NBER (draft*: Oct. 7, 1998).

Mbekeani, K. K. (1999). Foreign direct investment and economic growth. *NIEP Occasional Paper.*

Meldrum, D. H. (1999). Country risk and a quick look at Latin America. *Business Economics, 34*(3), 30–37.

Min, Kee. (2000). Does Foreign Investment Policy Matter? The Case of U.S. Direct Investment Abroad in Manufacturing. Dissertation, University of Kentucky.

Mold, A. (2001). El efecto de la integration regional sobre la inversion extranjera: El caso del mercado Unico Europeo. (The effect of regional integration on foreign investment: The case of the single European market. With English summary.) *Information Comercial Espanola, O*(794), 197–212.

Morisset, J., & Pirnia N. (1999). How tax policy and incentives affect foreign direct investment: A review. *World Bank Policy Research Working Paper No. 2509*

New York Times, February 25, 2005, Long-Term Help for the Poor- Social and Economic Policy, Global Policy Forum.

Ngowi, H. P. (2001). Can Africa increase its global share of foreign direct investment (FDI)? *West Africa Review, _*. (ISBN: 1525-4488)

Nigeria Business Information. (2002). Authoritative Information on Corporate Nigeria.

Nigeria Business Information. (2002). Nigeria and foreign direct investments (FDI).

Noorbakhsh, F., Paloni, A., & Youssef, A. (2001). Human capital and FDI inflows to developing countries: New empirical evidence. *World Development, 29*(9), 1593–1610.

Nunnenkamp, P. (1991). Developing countries' attractiveness for foreign direct investment—Debt overhang and sovereign risk as major impediments? *The Pakistan Development Review, Part II, 30*(4), 1145–1158.

Obwona, M. B. (2001). Determinants of FDI and their impact on economic growth in Uganda. *African Development Review (Revue Africaine de Development), 13*(1), 46–81.

Overseas Development Institute-ODI (1997). Foreign direct investment flows to low-income countries: A review of the evidence. *Briefing Paper.*

Pigato, M. A. (2001). The foreign direct investment environment in Africa. *African Region Working Paper Series No. 15*.

Pistoresi, Barbara. (2000). Investmenti diretti esteri e fattori di localizzazione: L'America Latina e il Sud Est asiatico (with English Summary). *Rivista Di Politica Economica, 90*(2), 27–44.

Ramcharran, H. (1999). Foreign direct and country risk: Further empirical evidence. *Global Economic Review, 28*(3), 49–59.

Roberte L. B. (1993). On the determinant of direct foreign investment: Evidence from east and southeast Asia. *World Development, 21*(3), 391–406.

Roberts, S. (2001). Globalization, industrial development and the plastics industry in South Africa. *Journal of International Development, 13*(6), 797–810.

Romer, Paul M. (1986). Increasing Returns and Long Run Growth. *Journal of Political Economy 94,* 1002–1038.

Rose Richard. (1993). Lesson-Drawings in Public Policy: A Guide to Learning Across Time and Space. Chatham, NJ: Chatham House Publishers.

Rugman, A. R. (1988) The multinational enterprise. In P. Walter and T. Murray (Eds.), *Handbook of international management*. New York: Wiley.

Salinger, L. B. (2001). Productivity, comparative advantage, and competitiveness in Africa. *African Economic Policy,* June 2001

Sams, Joseph. (1998). China Development, cited: http://www.gwu.edu/ylowrey/techdev.htm

Schoeman, N.J, Clausen, Robinson Z. and de Wet, T. J. (2000). Foreign Direct Investment Flows and Fiscal Discipline in South Africa. *South African Journal of Economic & Management Sciences, 3*(2), 235–244.

Shah, A., & Slemrod, J. (1991). Do taxes matter for foreign direct investment? *World Bank Economic Review, 5*(3), 473–491.

Shah, Zahir. (2003). Fiscal Incentives, The Cost of Capital and Foreign Direct Investment in Pakistan: A Neo-Classical Approach. Government College of Commerce Mansehra, *N.W.F.P.*

Soludo, C. C. (no date). Industrialization and growth in sub-Saharan Africa: Is the Asian experience useful? http://www.idrc.ca/library/ev-56334-201-1-DO_TOPIC.html

Stotsky, Janet G. & Asegedech WoldeMariam. (1997). Tax Effects in Sub-Saharan Africa. *IMF Working Paper.*

Sturm, R. (1993). *How education and training affect a country's economic performance? A literature survey*. RAND Copyright, 1993.

The World Factbook (2002).

Tsai, P. (1994). Determinants of foreign direct investment and its impact on economic growth. *Journal of Economic Development, 19*(1), 137–163.

Todd, J. Moss, Vijaya, Ramachandran, & Manju K. Shah. (2004). Is Africa's Skepticism of Foreign Capital Justified? Evidence from East African Firm Survey Data, Institute for International Economics, World Bank.

United Nations GCA/EC/N.2/3/1998. Enhancing the Investment Environment in Africa: *http://www.gca.cma.org/eecdoc98.htm*

United Nations Conference on Trade and Development (UNCTAD), 1999. Foreign Direct Investment in Africa: Performance and Potential.

_____ (1997a). Handbook of International Trade and Development Statistics (1995, Geneva, United Nations) United Nations publication, Sales No. E/F.97.II.D.7.

United Nations World Investment Report (UNWIR) 1998.

United Nations World Investment Report (UNWIR) (CD-Rom). 2001.

United Nations World Investment Report (UNWIR) (CD-Rom). 2003.

Vijaya, Ramachandran, & Manju, K. Shah. (1994). Is Africa's Skepticism of Foreign Capital Justified? Evidence from East African Firm Survey Data, Institute for International Economics, World Bank.

World Bank. (1998). *Global development finance* (2 volumes). Washington, DC: World Bank.

World Tax Database, (2003)

World Development Indicator. (CD-Rom (2001).

Yang, J. Y. Y,, Groenewold, N., & Moonjoong, T. (no date). The determinants of foreign direct investment in Australia. *Economic Record, 76*(232), 45–54.

Yang J. Y. Y., Groenewold, N., & Moonjoong, T. (2000). The determinants of foreign direct investment in Australia. *The Economic Society of Australia.*

Yang, Q. (1999). Repartition geographique de I'investissement direct etranger En China: L'impact du capital humain. (The regional distribution of foreign direct investment in China: The impact of human capital. With English summary.) *Revue D'Economie du Development, O*(3), 35–59.

Yeaple, R. S. (2002). *The role of skill endowments in the structure of U.S. outward foreign direct investment.* Harousburg, PA: University of Pennsylvania.

Young, K. H. (1988). The effects of taxes and rates of return on foreign direct investment in the United States. *National Tax Journal, 41*(1), 109–121.

Zhang, K. H. (2001). Promote economic growth? Evidence from East Asia and Latin America. *Contemporary Economic Policy, 19*(2), 175–185.

Zhao, Y. (2001). Foreign direct investment and relative wages: The case of China. *China Economic Review, 12*(1), 40–57.