



**The Impact of Foreign Direct Investment on Economic Growth in
Zambia**

A study in the context of a natural resource dependent economy

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Dedication

For my late parents; Lt Col Gibson and Mrs Christine Ndaba. For teaching me early in life the value of education. I wish they were here to see how well I listened.

For my siblings Thandiwe, Thulile, Kabvuta and Margaret, their spouses Maybin, Patrick and Nakanje and children. For believing in me even when I did not do so myself

Most importantly, for my Lord and Saviour Jesus Christ, for instilling in me confidence, strength, perseverance and deference. All glory and honour to him.

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List of Acronyms

AAC- Anglo American Corporation

FDI- Foreign Direct Investment

F P I I P - Foreign Private Investment and Investor Perceptions

GDP-Gross Domestic Product

GFCF-Gross Fixed Capital Formation

ICMM-International Council on Mining and Metals

IMF-International Monetary Fund

MCTI-Ministry of Commerce Trade and Industry

MFEZ- Multi Facility Economic Zone

MMMD-Ministry of Mines and Minerals Development

MOFNP- Ministry of Finance and National Planning

NBTT-Net Barter Terms of Trade

UNCTAD: United Nations Conference on Trade and Development

WDI- World Development Indicators

WIR-World Investment Report

ZCCM-Zambia Consolidated Copper Mines

ZCCMIH- Zambia Consolidated Copper Mines-Investment Holdings

ZDA-Zambia Development Agency

ZIMCO-Zambia Industrial and Mining Corporation

Abstract

This study looks at the impact of foreign direct investment on economic growth in Zambia in the context of a natural resource dependent country. With over 80% of all FDI being channelled to the mining sector, the study investigates whether this structure could have an influence on the level of impact exerted by FDI. It uses exploratory data analysis to investigate the relationship between FDI flows and Gross Domestic Product (GDP). The main analysis is based on time series data from 1990 to 2013. The base year 1990 was selected specifically because this was a transition year which led to the shift into a liberalised economy and increased FDI inflows. Prior to 2000, FDI was spread over other sectors in the economy. However, after that it is concentrated in the mining sector, averaging over 50% of total FDI. The study finds that the impact on growth is greater prior to 2000 than after. The study also finds that FDI contributed to increasing output in the mining sector due to recapitalization but this in turn has not resulted in dynamic growth for the economy. The study therefore concludes that FDI has not contributed to dynamic economic growth because it has been concentrated in mining sector. What it has done is reinforce dependence on the mining sector.

Keywords: *Foreign Direct Investment, Economic Growth, Resource Dependency, Zambia, Gross Domestic Product, Mining sector, Copper*

Relevance to Development Studies

FDI can be an important engine for growth in developing countries. FDI involves the movement of physical and/or financial capital across national borders for investment purposes. Although research shows a mix of results with regards to the impact of FDI on growth, governments, policymakers, multilateral agencies and many other stakeholders advocate for it with the formulation and enactment of direct policies. The global economy has become heavily centred on movement of capital flows now more than ever before. FDI is of precise relevance to development studies as it explores yet another prerequisite for “development” to be attained. This particular research is important because it looks at sector specific impacts of FDI with emphasis on the natural resource sector in a natural resource dependent economy. Most importantly, the study is relevant for the development of Zambia. The findings may be incorporated in the country’s development plans especially since there is limited research that looks at sectorial impact of FDI on Zambia’s growth.

Structure of the Paper

The paper is organised as follows. Chapter 1 looks at the introduction, highlighting the context on which this research is premised. Subsequently Chapter 2 highlights theory and studies related to FDI. Of primary relevance is the comparative analysis on resource abundant countries specifically Chile, Indonesia, Malaysia and Zambia. Thereafter chapter 3 gives a detailed background of the Zambian economy as well as information on FDI thus far with regards to the legislation that governs it, institutions that promote it and the evolution of FDI policies since the enactment of economic liberalisation in the 1990s. Chapter 4 discusses the study’s findings through a detailed description and analysis of the data. The conclusion and recommendations are presented in Chapter 5.

Chapter 1

Introduction

1.1 Background of the Study

This research paper seeks to investigate impact of Foreign Direct Investment on Economic Growth in Zambia as a natural resource dependent economy. Previous research has been conducted to look at the overall effect of FDI on economic growth. This research studies the increasing flows of FDI to the mining sector. It aims to uncover why growth in Zambia has not been dynamic despite having a significantly high FDI flows overtime. Three main probable impacts will be discussed. Firstly, how have the inflows of FDI over the years impacted growth? Secondly, how does the concentration of FDI in the mining sector affect the country's prospects of achieving dynamic growth? Thirdly, how has Zambia's investment policy promoted FDI in other sectors except the mining sector? The study rests on the hypothesis that FDI does and can lead to economic growth provided it is in a high tech manufacturing export oriented sector.

The last four decades have shown a shift by many developing countries from import substitution industrialisation to export promotion activities. This shift was accompanied by a recognition of the role that foreign direct investment can play in filling the savings-investment gap that would facilitate export promotion (Athukorala and Menon 1995). Zambia's liberalization of the economy in 1991 had a twofold interpretation; it allowed for the existence of local private enterprise and also promoted foreign investments in various forms. Being a developing country endowed with cheap labour, great opportunity for market access and abundant natural resources, Zambia has been a major recipient of FDI. Its market access has been necessitated by its membership in regional and multilateral bodies that facilitate economic partnership agreements such as the Common Market for Eastern and Southern Africa and World Trade Organisation (ZDA 2015)

Contemporary development theory asserts that firms will set up business operations elsewhere if benefits that accrue to the firm outweigh the cost of setting up the operation. Dunning (1973, 1980 and 1988) contends that the reason for the rise in FDI is because firms want to take ownership of their assets, internalise assets by either owning them themselves or leasing them to other firms as well as finding a location which offers higher profitability than their home country. Although this too may be an explanation for increased FDI flows, a plausible argument for the Zambian scenario is that of investors who want to gain access to resources.

FDI is considered as one of the key drivers of economic growth. This is under the notion that it brings much needed revenue to the host country as well as spill over effects such as technical expertise and raising productivity of domestic firms. Some studies suggest that FDI is beneficial only if the country is well endowed in human capital (Borensztein 1997). Fortanier (2007) argues that the gains derived from FDI vary based on the country of origin as well as the host country characteristics. This study will not look at the effects of FDI in general but rather its impact in the context of a resource dependent country. More precisely, it will assess this impact by analysing the sectorial dominance of FDI in Zambia and understand its implications for economic growth.

Economic growth is characterised by an increase in the number of goods and services produced in a country. It's commonly measured by Gross Domestic Product (GDP) which measures annual output in a given country by the local production base. Contributing to economic growth is one thing and achieving dynamic growth is quite another. Zambia's economy has been growing but it is yet to achieve the kind of growth that can spur its take-off. If the driving force of economic

growth is the mining industry, in which FDI is highly focussed, then it is expected that significant growth should be from this sector. However, more than twenty years since Zambia opened up its economy to foreign investment, it only just recently attained lower middle income status, 60% of its people are below the poverty line and 42% live in extreme poverty (World Bank 2015).

Growth dynamism or dynamic growth refers to an unprecedented economic growth. One that allows a country to transform to exceptional levels in a relatively short period of time. Growth dynamism is often associated with the East Asian Tigers because they managed to transform their economies rapidly. For Zambia to be able to achieve what emerging and fast growing economies have, the way to do so is to have a pattern of rapid and sustained growth that stems from diversified industrial production and an equal diversification in exports (Brühlhart et al 2015). For the reason that Zambia is a private sector led economy {Foreign Private Investment and Investor Perceptions (FPIIP) 2014}, which also comprises foreign investors, the contribution of FDI to economic growth has to be maximised to make economic growth dynamism possible. The last 25 years have shown that depending on the mining sector has had dire consequences on the economy. Ironically, 86% of all FDI has been channelled to the Mining (Zambia Report 2015). According to ZDA (2015), Zambia is Africa's leading Cobalt and Copper producer. This however has not given Zambia the kind of competitive advantage that spurs rapid economic growth.

Foreign Direct Investment holds no universally accepted definition. However, there are certain scholars and institutions that have attempted to describe rather than define it. Early writers such as Caves (1971) describes FDI as a means through which technology and capital is transferred globally by a corporation that operates in more than one country. Hymer (1976) maintained that FDI represents an investment from a foreign entity into a domestic one accompanied by direct control. Similarly, Dunning (1973) who looked at FDI in terms of multinational enterprises, defined as those enterprises that have ownership or direct control of income-generating activities across different countries as well as those that jointly operate or manage a firm in a foreign country. In this study, the IMF definition is adopted. FDI is defined as “an incorporated or unincorporated enterprise in which a foreign investor owns 10 per cent or more of the ordinary shares or voting power of an incorporated enterprise or the equivalent of an unincorporated enterprise”(IMF 2004).

1.2 Statement Of The Problem

Many resource rich countries have difficulties achieving sustained growth due to the volatile nature of the prices of the resource be it oil, gas or minerals (Sachs and Warner 2001). This being the case, FDI in any such sector is unlikely to yield dynamic growth that can kick start a country on a path to sustained growth. Since 1974, the copper mining sector in Zambia has been susceptible to falling prices and low output. This low output is as a result of insufficient capital in the sector as well as declining ore deposits (Ndulo and Mudenda 2010). FDI in the Mining sector has to a large extent helped alleviate the capitalization problem as well as relieve balance of payment pressure but may not help much with covariate shocks like falling prices. Notwithstanding, the mining sector is interlinked with many facets of the macro economy and it stands as a critical sector due to exports and government revenue (Zambia Review 2015).

It is imperative that if a resource rich country is to progress, it must put in place necessary measures that prevent it from suffering the Dutch Disease. Dutch Disease refers to a phenomenon where the non-tradeable sector supersedes the tradeable sector resulting in sudden influx of foreign exchange. The term was first used in “The Economist November 26th 1977, pp. 82-3” in article called “Dutch Disease” (Corden 1984:359). The author referred to the negative effects that were experienced in the manufacturing sector as a result of the sudden discovery on natural gas in the

Netherlands. The discovery of the natural gas led to subsequent appreciation of the domestic currency and an increase of wages in the natural resource sector, making predominantly tradeable sectors specifically the manufacturing sector less productive. In essence, an appreciation of the domestic currency makes manufactured exports more expensive so the non-tradeable sector begins to dominate. This boom in the prices of natural resources tends to have positive effects on output in the immediate term but negative effects on growth in the long run (Mavrotas et al: 2011)

To avoid suffering the Dutch Disease, a country must ensure that revenue from the natural resource sector is used to create a diversified economy. The Dutch Disease is not a one size fits all analysis. Some like Malaysia seem to have escaped the resource case although it is may have suffered from it prior to the 1980s pre-industrialization period Yusof (2012). But this is only so because they have not, like the common adage, 'placed all their eggs in one basket'. Yusof (2012) contends that despite being heavily endowed in natural resources, it is a highly diversified economy which has grown its manufactured export base especially of electronics, automobiles and aerospace. Sachs and Warner (2001) argue that countries endowed with natural resource fail to achieve both export led and other forms of economic growth. Speaking specifically about the Zambian case, they argued that because the natural resource sector contributed in excess of 50% to the economy, the potential to crowd out other economic activities is more eminent.

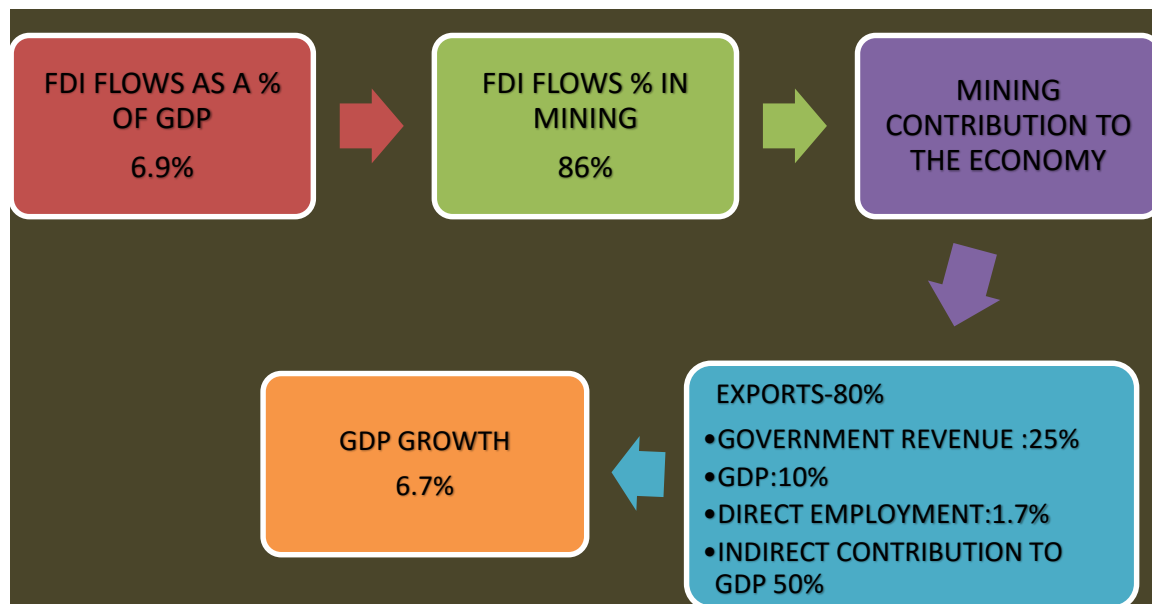
FDI in Zambia is mainly in mining both in terms of flows and stocks. It accounts for 86% of the total FDI and 80% of exports (Chamber of Mines 2015). The nature of the mining sector is that it is volatile and susceptible to falling prices. This being the case, gains that mining presents are not stable. Mining accounts for a huge proportion of export earnings and total national investment. It also contributes 25% of the total government revenue. The mining industry also accounts for a 1.7% of the workforce in the country (ICMM 2014). In the last two years the copper, which is Zambia's main mineral and major export commodity, has had prices fall more drastically than they have before. In what Bloomberg terms a resource rout, copper appears to have fallen by 13%, the lowest in the last thirteen years (Arnsdof 2015).

The concentration of FDI in the mining sector has implications for the economy. One of which is having a robust natural resource sector at the detriment of other sectors that may have the potential to grow the economy dynamically. The FDI flows channeled to the sector have increased productivity but have also exacerbated the country's dependence on it. This dependence on mines has left the potential of other sectors such as manufacturing underexploited. Of the manufacturing establishments in Zambia, 18 % are foreign owned while around 72% are privately and domestically owned inclusive of Zambians by citizenry and by descent (Manufacturing Sector Study report 2012). What is interesting about the manufacturing sector is that the most robust subsectors, which provide the highest value addition, namely Fabricated Metal Products and Nonmetallic minerals (Manufacturing Sector Study report 2012), are also linked to the mining sector so much so that the revenues depend on the smooth operations of the mines. The Zambia Review Booklet (2015) argues that although the contribution of mining to GDP is around 11%, actual contribution to the economy with the inclusion of other related ventures is 50%.

Prebisch (1950) and Singer(1950) hypothesized that terms of trade tend to deteriorate against primary commodity producers. The fall in copper prices in recent years has adversely affected revenue for Zambia. The situation has been further hampered by the appreciation of the United States Dollar. In 2015 alone, the Kwacha, Zambia's legal tender, has had the greatest depreciation on record by falling 45% against the USD (Hill 2015). For the reason that Zambia's exports have been mainly copper, thereby linking the Kwacha's strength to copper prices, falling copper prices have inevitably meant falling Kwacha. Without a robust manufacturing sector to cushion it from these circumstances, which would otherwise have allowed the economy to capitalize on

manufactures exports, the country is left to face ominous macroeconomic conditions. The conditions the country is facing may arguably have been hedged in a diversified economy.

Figure 1.1: Relationship Between Resource Dependence And FDI (As At 2013 ¹)



Source: Author's own using data from ICMM (2014 :), Zambia Review 2015 and WDI (2015). Accessed 26 October, 2015.

The above diagram is visual description of my study. With the level of FDI concentrated in the mining sector, its impact on economic growth is limited to the robust functioning of the Mining sector. Furthermore, the high macroeconomic contribution of the mining sector entails the stability, or lack of it thereof, of the economy is defined by this sector. Most importantly, the high proportion of exports that the mining sector commands clearly indicates that Zambia is not only dependent on primary export commodities but also a lack of diversification of the economy. A combination of these factors suggests that the manufacturing sector is underutilized and therefore creates a dependency on manufactured imports. Compared to other resource rich nations, the mining sector's contribution to the economy in Zambia is the highest. For instance, the average contribution to exports in other resource rich countries is between 30% and 60%, that of government revenue 3-20% and that of direct employment around 1 % (ICMM: 2014). The aim of this study is to investigate if this structure may be responsible for the lack of economic growth dynamism.

1.3 Relevance and Justification Of The Research Topic

FDI is of paramount importance in the Zambian economy. In 2006, The Zambia Development Agency (ZDA), an agency for the promotion of exports and foreign investment encourages FDI by offering great incentives to foreigners was set up. The agency has spearheaded the establishment of Multi Facility Economic Zones that will attract FDI and enable investors to operate in favourable environment. The first MFEZ established in 2009 in the Mining province of Chambishi was expected to generate \$900 million investment in five years, representing 75% of the investment pledged made by Chinese companies for the MFEZ (Shapi 2007). With this in mind, five other MFEZ have been constructed, two of which are in the mining regions of the

¹ FDI Flows in Mining, Exports and Indirect Contribution to GDP as at 2014(Zambia Review 2015)

country. Investors who invest in the MFEZ are given a zero percent tax policy on dividends for five years, on profit in their initial year of set-up and on importation of any machinery to be used by the company including specialised vehicles (ZDA 2015).

In addition to this, non-fiscal incentives are extended, depending on the investment threshold and sector, such as investor guarantees that protect from nationalization, free facilitation for immigration permits for both investors and up to five of expatriate workers as well as free application of secondary licenses, application of land and utilities (ZDA 2015). Since the enactment of the ZDA Act of 2006, FDI has grown tremendously. UNCTAD reports that FDI in Zambia has been on the rise averaging \$651 million between 2006 and 2009, representing an 83% rise from 2005, the bulk of which was directed in mining.

Zambia has had six presidents since attaining independence in 1964, five of which have led in a liberalised economy. The various regimes since 1991 have continued to reiterate the importance of FDI (FPIIP 2014). In his inaugural speech in January, 2015, incumbent president Edgar Lungu stated clearly government's commitment to ensuring private sector led growth. He reiterated this commitment in his first official opening of the 11th National Assembly on 18th September, 2015 that "the country must industrialize rapidly. This will entail rationalizing and strengthening the regulatory, legislative and institutional framework to make Zambia a premier destination for foreign direct investment" (The Post 23 September, 2015)

Against this background, it is clear the importance attached to FDI in the Zambian economy. The government has placed priority on FDI as a means of achieving economic development by putting in place the necessary mechanism. Despite these measures however, growth in Zambia has not been sustainable. Why then has growth stagnated? This research aims to uncover why the current FDI framework has not contributed significantly to economic growth. It hypothesizes that the reason is due to the sector in which the FDI concentrated which is unlikely to yield meaningful gains that can cause economic growth dynamism. In this paper, economic growth dynamism or dynamic growth refers the kind of growth that spurs significant and transformative growth in an unprecedented manner.

1.4 Research Objectives

The main research objective is to investigate the impact of foreign direct investment in Zambia specific objectives are summarized as follows:

- To investigate the impact of FDI in terms of economic growth dynamism
- To examine possible impact of FDI on economic dynamism in the manufacturing sector?

1.5 Main Research Question

- What is the impact of Foreign Direct Investment on economic growth in Zambia?

Sub research questions are:

- To what extent has FDI contributed to the economic growth in Zambia?
- Is the concentration of FDI in mining sector capable of driving dynamic growth in Zambia's economy?
- Does the current investment policy promote multi sector FDI?

1.6 Research Methodology

The research uses both secondary and primary data. The secondary datasets were obtained from the World Development Indicators (WDI) as well as UNCTAD Statistics. These will basically look at the FDI inflows as well as economic growth in Zambia from the period 1990 to 2014. For purposes of triangulation, the research employs background interviews from select officials from the Zambia Development Agency and Ministry of Mines. In addition to this, I use data from the Central Statistical Office to look at the sectorial contribution to GDP. The data are mainly analysed by use of descriptive statistics. Specifically the method of analysis to be engaged is exploratory data analysis. This method of analysis allows the visual display of data in order to reveal the main findings of the research. This technique is essential as it presents the relationship of variables without the use of econometric models (Hartwig and Dearing: 1982)

Table 1.1: Data Analysis Variables

Variable	Explanation
FDI Inflows (% Changes)	FDI inflows represent all credit transactions by direct investors that allow them to acquire 10% or more voting stake. These inflows are recorded on the host economy's balance of payment(WDI 2015).FDI inflows percentage changes therefore will observe how the flows have changed overtime and how these changes have affected other variables
GDP Growth	Measures the annual rate of change in total output in an economy
Copper Price Indices(% Change)	Due to the tendency of monetary figures to give spurious results overtime, percentage changes are used
Net Barter Terms of Trade	Represents the ratio of unit prices of exports to unit prices of import against the base year 2000(WDI 2015). NBT'T measures how much of the county's exports can cover its imports.
Mine as a % of GDP (% Changes)	Measures how much of the output in Mining contributes to overall national output
FDI as a % of GFCF	Gross Fixed Capital Formation (GFCF) is a concept that explains the fixed assets acquired, either new or existing, by an economy in a period of time (WDI: 2015). FDI as a percentage of GFCF therefore measures how much of these fixed assets acquired are attributable to FDI
Diversification Index	The Herfindahl-Hirschman Index (HHI) measures the extent to which exports are diversified. It lies between 0 and 1. Values closer to 0 indicate a higher degree of diversified exports and values closer to 1 indicate a high degree of concentration(Veras 2012)

1.7 Risks and Ethical Challenges

- Obtaining data from local institutions - the data was not be as organized as it is on formal sites like the World Bank website
- Data on the manufacturing sector is limited
- Data indicating FDI composition by sector was not available for all years and I was unable to find a defined source with all the years.
- The interviewees demanded to stay anonymous

1.8 Limitations of the Study

The study addresses the sectorial impact of FDI and not its determinants. It does not do an in-depth study of each sector but assesses the contribution of manufacturing and mining to GDP. For comparative purposes the study looks at literature on FDI from three other resource rich countries specifically Chile, Malaysia and Indonesia. However, due to time constraint it did not delve into an in-depth study of each. The study is also limited to the availability of data as there are certain variables which would have been used but had to be discarded because information was not present for all years.

This chapter has presented a brief outlook of the argument on which the study is premised; that of having FDI in a natural resource sector and its possible implications for growth. It has highlighted the importance attached to FDI as well as the mining sector. The following chapter looks at theories guiding FDI as well as studies conducted on the impact of FDI on economic growth.

Chapter 2

Literature and Empirical Studies

This chapter looks at theories that explain the impact of FDI in countries as well as studies conducted in various countries on the impact of FDI on the economic growth of those countries. Two general theories are to be considered. Jointly the theories address the effect of investment in a primary commodity dependent economy. Subsequently, the literature looks at general studies in different countries. Of particular importance are the studies carried out in resource rich countries specifically Indonesia, Malaysia and Chile. The reason for this is to give an informed and unbiased analysis of countries that are located in different regions but have had different outcomes stemming from FDI.

Growth theories such as Harrod (1939)-Domar (1946) model and Solow (1956) argued that growth would be influenced by increases in savings and productivity resulting from rises in capital. Romer (1986) after them maintained that the increase in human capital accumulation and spill over effects was most desirable and countered the tendency of capital to diminish marginally. Upon these models, arguments on the impact of FDI on economic growth have been formed.

In 1960, McDougall presented the costs and benefits of foreign capital. Of the main benefits discussed was know-how, relieving balance of payment pressure and revenue for the government. One of the key costs was that FDI would crowd out domestic investment. Many debates have arisen since then regarding FDI's potential benefits on one hand and detrimental effects on another. Early proponents argued that it would lead to considerable technological advancement (Dunning 1958). Yet, with most corporations getting nationalized in the post-colonial era, it became increasingly difficult to make a case for FDI (Frederickson and Zimny 2004). Presently however many countries are championing FDI by creating a conducive environment in which it can flourish as well as offering incentives to current and potential investors.

2.1 Theoretical Framework

The first theory describes the impact of FDI on economic growth. The main proponents are Hirschman (1958) and Chenery and Strout(1966). The second theory explains the effect of commodity dependence on economic growth. Main proponents are Prebisch (1950) and Singer (1950).

2.1.1 Related Theories On Impact of FDI on Economic Growth

Hirschman (1958) argued that foreign capital has positive growth effects because it bridges the savings gap in developing countries. He reasoned that FDI has the ability to propel an economy on a natural growth process. The saving gap and natural growth hypothesis is also supported by the Harrod-Domar growth model. It was argued that in order to grow, a country must save a significant proportion of its national income. However, if it is unable to generate savings locally, it can do so through external investment sources. This accumulation of capital would then lead to growth. Hirschman (1958) argued that FDI also brings in managerial skills and technical expertise. He maintained that local investors tended to be static, working at the same pace as the government. In this regard even though they were able to generate savings for the economy, they were not able to utilize them to stimulate further growth as they were generally apprehensive about taking on larger projects. Foreign investors on the other hand were innovative and detached from the

government's reluctance to engage in large capital projects that lead to dynamic growth. In addition, Hirschman (1958) claimed that foreign capital has the ability to maximize the potential of underutilized sectors of an economy. Hirschman (1958) however did not consider the fact that domestic investors are not generally hesitant to take on large projects, but lack the capital to do so which is a common problem in developing countries.

Hirschman (1958) also reasoned that agriculture and mining had less potential for backward and forward linkages compared to manufacturing. He maintained that most agricultural products would end up as exports or consumption goods as is while those in mining would "slip through the country without leaving a trace to the rest of the economy" (Hirschman 1958:10). He reasoned that the absence of direct linkages for exports in the mining sector had made locals hostile because profits from the sector were repatriated to the investors' country of origin. However, such hostility would not be valid in the manufacturing sector because it offered greater potential for both forward and backward linkages making it hard not redistribute some of the profits in the host country. Despite this position however, linkages do exist in the primary sector as well although they may not be as vast as those offered in the manufacturing sector.

Chenery and Strout (1966) gave an analysis from the perspective of primary commodity producers. Like Mc Dougall (1960), they argued that although foreign capital is required because it reduces balance of payment pressures, if exports do not grow much higher than imports then it will not have a sustained effect on growth. Chenery and Strout (1966) argued that because earnings from exportation of primary commodities depends on prevailing demand conditions, an unprecedented rise in earnings can only be derived if new export products are developed. The required capital therefore is one which fulfils the gap between the import requirement and the export earnings. However, the import requirement is defined by the economy's ability or inability as it were, to produce the manufactured products locally. Lensink and Bergeijk (1991) described this as a "two gap" model as it covered both the savings gap and the trade gap. Chenery and Strout (1966) therefore presented a case that FDI inflows should provide the kind of capital that encourages export creation and minimises import dependence. Nonetheless, achieving this dichotomy is not always easy because rising exports result in rising income which raises the propensity to import since absolute autarky is not feasible.

Moura and Forte (2010) discussed the negative effect of FDI on growth. They argued that although FDI does offer benefits in terms of revenue through taxation, technical expertise as well as employment, these benefits are not always guaranteed. For one thing, the bringing of technology on one hand would negatively affect the country's R & D as it creates a dependence on the foreign technology. Contrarily, it can also be argued that that FDI saves a country the cost of R & D because this technology is brought in without the host country having to spend money developing it.

Simpasa et al (2013) contends that due to practices of transfer pricing by foreign entities, prospective gains from FDI are forgone. In this case therefore, despite the revenue that the host country realises from FDI, it is not able to gain comprehensively. However, it is also possible to prevent or at least limit practices of transfer policy through stringent regulatory framework and policies. In this case the gains depend more on the host country's ability to control the transfer pricing and less on the MNCs ability to do so.

2.1.2 Structuralist Theory on Primary Commodity Dependence

Prebisch (1950) argued that terms of trade tend to depreciate against primary commodities. This is due to their inelastic nature and lack of ability to generate effective demand. Primary products were said to be income and price inelastic, meaning that people would not demand more of them as incomes grew and changing prices would not necessarily have a matching change in demand.

His analysis was based on a study of Latin American countries, which specialize in primary products and tend to be hit the worst in periods of crisis. Prebisch (1950) made three main observations:

- There is a lower income elasticity of demand for primary products compared to manufactured goods
- The greater the exports, the higher the likelihood of achieving fast economic growth. However this would raise demand for imports and therefore import substitution would have to intensify
- Specialization created a higher dependency and did not allow countries to achieve growth in the long run.

Singer (1950) argued that incomes derived from primary products do not allow countries to grow but rather only enable them to import consumption goods. He reasoned that specialization inhibits prospects of industrialization and hampers investment because it makes developing countries channel efforts to economic activities that do not allow for technological advancement and economies of scale. Singer (1950) also maintained that prices tend to move in favour of manufactured goods and against primary ones regardless of the levels of productivity for both producers. If a country producing primary exports has advanced technology, it is still vulnerable to falling prices. Countries producing manufactured products on the other hand have rising incomes.

Blattman et al (2005) reasoned that although Prebisch (1950) and Singer (1950) were right in their hypothesis of terms of trade deteriorating against primary commodity exporters, the time in which their observations occurred is of utmost importance. They argue that the Prebisch-Singer Hypothesis could have been influenced by deindustrialization as well as slow income growth experienced before 1870 (Blattman 2005:172). However, Prebisch (1950) and Singer (1950) based their argument principally on the nature of primary products and how their producers were organized in the international division of labour. Demand for primary product imports by the core was much less than the demand for manufactured imports by the periphery. This therefore meant that regardless of economic upswings and downswings which were applicable to all countries, the periphery was disadvantaged due to its heavy dependence on primary commodity exports and manufactured imports.

Sarkar (1986) offered a critique to the Prebisch-Singer Hypothesis. He suggested the hypothesis was problematic because it ignored trade among industrialized countries. However, the hypothesis was limited to Latin American countries and their trade with western countries specifically Britain. In this case, it was immaterial whether one industrialized country was trading with another. For Prebisch (1950), the main argument was that in the process of trade with industrialized countries, Latin American countries were disadvantaged because of the kind of products they were exporting which not only created a dependency on manufactured imports but sacrificed the prospects of industrialization.

Furthermore, Sarkar (1986) argued that the hypothesis had a quality bias because improvement in the quality of manufactured products, often for the better, would make terms of trade appear more favourable than is factually true. In essence, this was the basis of Prebisch's argument. Manufactured products had more potential for value addition making them more profitable not only to produce but export.

2.2 Review of Empirical Studies

2.2.1 General Studies

Studies on the effects of FDI on economic growth are mixed. Nair-Reichert and Weinhold (2001) examined the heterogeneous nature of results obtained from the FDI and economic growth nexus. They argue that the variation in the results is due to the imposition of homogenous assumptions in econometric models when analyzing data (Nair-Reichert and Weinhold 2001: 154). Adewumi (2006) for instance, who carried a time series study on all African countries between 1970 and 2003 found that the impact of FDI on growth on Africa as a whole was positive but far from significant when he segmented 11 countries. He admitted that the reason for the variation was due to the methodologies used because regression analysis produced more robust results when the sample is large.

Levine and Carkovic (2002) argue that FDI exerts a positive impact on economic growth in the presence of other growth determinants. However, they did not find robust results linking growth to the presence of FDI. They observed data for 72 countries between 1960 and 1995. Still, they did not critically assess the variations of FDI flows across time for any of the countries involved. As is the case, FDI flows in the 1960s and 1970s are much less and even lesser when compared to those in the 1980s and early 1990s. The changes in FDI over the years have different effects on growth and averaging them is likely to have produced spurious results. Levine and Carkovic (2002) acknowledged that although the econometric methods used for sensitivity checks provide robust results, they do not account for dynamic effects of FDI on growth which may vary in the short and long run.

Nazmi (2008) studied the role of foreign capital in Ecuador. He argued that despite having a similar FDI to GDP ratio with many other South American countries such as Brazil, FDI had not brought about a positive sustained impact on the growth of Ecuador. Between 1986 and 1997, FDI flows were channeled only to the mining sector and having overall contribution of less than 3% to GDP. Nazmi's study showed that despite increasing FDI flows to the Mining sector which resulted in growth in output, the sector's overall contribution to GDP is still minimal. Furthermore, he showed that because almost all the FDI flows were in the mining sector, the "FDI to GDP" ratio was equivalent to the "FDI in mining" to GDP ratio. Nazmi(2008) maintained that the dependency on one product, in this case petroleum, reinforced the pattern of FDI.

In a sample of 55 developing countries from Asia, Latin America and Africa, which also included Zambia, Nunnenkamp (2002) observed the impact of FDI on growth using time series data between 1970 and 1999. He suggested that the causal impact of FDI on growth was limited if FDI was concentrated in the natural resource sector. He further argued that "the dominance of the primary sector renders it difficult to participate in the rise of globalisation-induced FDI. At the same time, growth prospects are compromised by the longer-run decline in commodity prices and by relatively weak spillovers of resource-seeking FDI" (Nunnenkamp 2002: 4). Like Prebisch (1950), he argued that resource-based economies are much more likely to have structural impediments that hinder their strategic integration in the global division of labour.

2.2.2 Comparative Studies from Resource Rich Countries

This segment of the literature review gives a brief description resource rich countries including Zambia as well as empirical studies conducted in each. Zambia, being the case study under discussion, is discussed in depth in Chapter 3 of the paper. Table 2.1 briefly outlines key indicators for the comparison. The selected year is 2013 as it the latest year when data are available for all countries. Although the countries may have somewhat similar growth rates, their economic

structures are different and so is the size of their economies. More importantly, sectorial distribution of FDI is different. The interaction of key indicators is the main point of this study. Three conclusions can be drawn based on Table 2.1.

1. The level of FDI in the mining sector does not significantly influence its contribution to GDP. FDI in mining for Malaysia and Indonesia for instance is far less than that of Zambia and Chile and yet contribution to GDP does not vary considerably.
2. The higher the FDI as a percentage of GDP, the higher the level of FDI as a fraction of GFCF.
3. FDI in manufacturing does not automatically guarantee a higher contribution to GDP. For instance Indonesia and Zambia. However, as the comparative studies will show, the type of manufacturing is also relevant.

Table 2.1: Comparative Overview Of Key Indicators As At 2013

Country	FDI as a % of GDP	FDI in Mining (%)	FDI in Manufacturing (%)	FDI as a % of GFCF	Mining as a % of GDP	Manufacturing as a % of GDP	GDP Per Capita Growth (%)
Malaysia	3.7	8.6	13.9	15.3	8.4	24.8	3.2
Indonesia	2.6	10.	46.2	6.4	7.0	25.5	4.2
Chile	7.0	44.9%	4.7	30.3	12.0	10.2	3.1
Zambia	7.8	65.5%	21.0	30.4	10.3	7.8	3.5

Source: Author's own using data from Zambia Review (2015), WDI, Central Bank of Chile, Indonesia Investment Coordinating Board, Statistic Indonesia, Malaysia Investment Report (2013), Malaysia Economy in Figures (2013) and Zambia in Figures (2014) Accessed 3 November 2015.

Malaysia

Malaysia is heavily endowed with natural resources specifically mining, oil and gas. It embarked on creating incentives for foreign investors early in the 1970s by offering tax holidays for a number of years as well as subsidized commercial land in order to attract FDI specifically those MNCs dealing in manufactured exports (Yusof 2012). After realising that import substitution had not brought desired results with regard to accelerated economic growth, Malaysia implemented a rigorous export led growth regime. This resulted in achieving an exceptional average growth rate of 8.7% between 1988 and 1996, harnessed specifically by FDI in the manufacturing sector (Okposin and Cheng: 2000). The manufacturing sector continues to be the largest recipient of FDI and receive \$7.1 billion representing 14% of all FDI channelled to one sector (Malaysia Investment Report 2013). Malaysia's Third Industrial Master Plan aims at a focused approach of FDI in the manufacturing sectors with pledges of RM412 billion worth of investment by 2020(Lean 2008).

It is worth mentioning that government policies have been critical to the development of the manufacturing industry in Malaysia. The Industrial Coordination Act 1975 (ICA) and the Promotion of Investment Act 1986 (PIA) simultaneously work to ensure promotion of FDI in the manufacturing sector specifically those sectors dealing with sophisticated technology and higher value addition (Rajenthiran 2002). Malaysia is an economy that was typically dependent on mining. However, they utilized foreign direct investment as a means of promoting their export led growth strategy. To this effect, Malaysia was able to achieve early industrialization which has allowed its economy to grow consistently with an average growth rate of 7% per year for 25 years (World Bank 2015).

Athukorala and Menon (1995) studied the impact of FDI on economic growth of Malaysia focusing specifically on the transformation occurring since the mid-1980s. The study found that Malaysia's rapid industrialisation leading to economic growth is attributed to FDI. Specifically they argue that the 100% foreign ownership in the export oriented sector as well as other incentives have been instrumental in ensuring that Malaysia transform from the resource dependent economy it was in the 1960s. By 1986 for instance, the number of foreign firms producing manufactured exports was 51.2 % compared to the 32% in the primary exports (Athukorala and Menon 1995). In addition to this, the kind of manufactured exports were those of high tech nature such as electrical and electronic produced mainly by Japanese and American MNCs (Athukorala and Menon 1995).

Kogid et al (2014) studied the impact of FDI on the economic growth of Malaysia using time series data from 1971 to 2009. The time period was selected based on the liberalization policy enacted in around 1970 which allowed for foreign capital inflows. The study's findings were that FDI did have a significant impact on the economy of Malaysia. The variables employed were FDI net flows and Real GDP. The choice of net flows as a proxy for the impact of FDI may have produced spurious results as impact depends on which one dominates between FDI inflows and FDI outflows. More robust results could have been obtained if FDI inflows were treated separately from FDI outflows. A negative impact was indeed shown in the period where FDI outflows were in excess of inflows. Furthermore the methodology used was useful at determining causality between FDI and Real GDP but still left the question of whether the effects are long term unresolved.

Indonesia

Indonesia has vast natural resources both minerals and oil. Prior to 1990s manufactured exports as a percentage of merchandise exports was less than 5%. However, from 1990 onwards, the proportion increased to 41% currently (WDI 2015). The country is still undergoing processes of economic diversification as it is predominantly a primary product exporting economy. However, it has been successful in heightening the contribution of the manufacturing sector to economic growth.

Indonesia liberalised its economy much earlier in the 1967 (Khaliq and Noy 2007). FDI is governed by the Foreign Capital Investment Law of 1967 which was later amended by Law Number 25 of 2007. The initial law was stricter and highly regulated in terms of foreign ownership. The only industry that was not restricted was the extractive sector (Zen 2012). However in 1985, the Indonesian government relaxed regulation on FDI that promoted expansion of exports, hence the increase in manufactured exports (Zen 2012). Rapid economic growth in Indonesia was witnessed in the 1990s due to the increase in the share of manufactured exports. Athukorala (2006) contends that the shift from crude oil exports to non-oil exports is responsible for rapid growth from 1987 to 1997 prior to the 1997 East Asian crisis. The crisis resulted in a negative FDI inflows as most foreign investors pulled out of the economy creating a reliance in the primary sector again (Zen 2012).

Kahliq and Noy (2007) studied the impact of FDI on economic growth in Indonesia using sectorial data over the period 1997-2006. The sectors observed were agriculture, forestry and fishing, mining and quarrying, non- oil and gas industry and service sector. Basing their theoretical framework on Solow (1957) growth theory, they derived a model of rise in capital technology and other inputs on economic growth. They observed that overall FDI had a positive effect on economic growth. However, the results showed negative effects on economic growth of FDI in mining and quarrying and reported positive results in agriculture and service sectors. They

concluded that FDI in extractive industries was negatively correlated with economic growth. The findings revealed that the contribution that FDI makes to growth is dependent on its composition.

A similar research by Alfaro et al (2003) argues that although the effects of FDI on growth may be unclear, evidence suggests that there are positive effects in the manufacturing sector than the primary sector. The study which employed sectorial analysis of 47 countries using cross country data from 1981 to 1999 found that the benefits of FDI are much higher if it is in the manufacturing industry sector as opposed to extractive industries. The study found negative and highly significant effects in the primary sector, positive and highly significant in the secondary sector and positive but not so significant in the services sector. Arguably, the fact that the countries used were both developing and developed in all continents may have influenced the findings. However such is often the case of cross country data as it generally disregards time and nature of the country. Maddala (1999) argues that the explanatory variable, in this case FDI, for developing countries is often a dummy variable or may be constant. However to mitigate these problems, Alfaro (2003) used data from several sources but identified difficulty since sectoral data from non-OECD countries was not always fully available.

Chile

Chile is heavily endowed in copper deposits. It is currently the world's leading producer of copper. The Chilean economy was predominantly one with heavy dependence on the Mining sector. Like most South American economies in the period preceding the 1980s, it was one heavily geared towards import substitution (Salcedo and Alkoorie 2013). However, in the late 1970s the country began to move away from this trend into a more diversified economy. They issued a Decree Law 600 which was enacted for the purpose of regulating FDI as well as remittance of foreign capital flows (Chile Foreign Investment Committee 2015). The law allowed FDI in all sectors as opposed to limiting it to the mining sector as was previously the case in. Still, FDI was concentrated in the mining sector until 1990 (Robles 2010). Due to the volatility of copper prices, Chile began to realise the risk in running a mono economy. To this effect, in the early 2000s they devised an export led growth strategy championed by the National Council on Innovation and Competitiveness (NCIC) that would allow the economy to diversify through the intensification of industrial activity that was not centred on natural resources (Vera 2012). Between 1992 and 2004, substantial amounts of FDI were channelled to the service and manufacturing sectors (Fernandes and Paunov 2011). Veras (2012) also observed that during the same period, Chile showed a highly diversified export structure.

With the skyrocketing prices of copper in 2004 onwards, the government introduced windfall royalties (Veras 2012). The increased fiscal revenues allowed them to create three main hedge funds namely the Economic and Social Stability Fund (ESSF), the Pension Reserve Fund (PRF) and the Innovation for Competitiveness Fund (ICF) (Veras 2012). The first fund would allow the government to hedge against any budgetary deficits, the second to provide pension for their aging population and the third to allow the increase in innovation and competitiveness. With these deliberate policies, the Chilean economy began to manifest significant transformation.

A study by Robles (2010) assessed the regional effects of FDI using regional GDP per capita and regional FDI data between 1990 and 2003. She used the Granger causality test to determining the direction of the relationship. The study found that there was a double causality in the natural resource sector. Nevertheless the impact of FDI on GDP was shown in much longer time (typically three year and more) periods due to the nature of long term investments in the mining sector. On the contrary, that of GDP to FDI was around two year periods. Arguably one would

expect that the impact of investment is not immediate, hence the need for lagging the variables. In addition to this, investors would naturally decide to go to countries whose growth prospects are promising. Veras (2012) contends that a stable macroeconomic environment and stable GDP annual growth rate of 6.4% did attract FDI but it was this FDI that contributed to further economic growth through the rise in manufactured exports and non-traditional exports from 4% in 1990 to 9% in 2003 for each of the sectors (Veras (2012)).

Ramirez (2008) investigated FDI in Chile between 1987 and 1996. Using capital formation, technological expertise and productivity as explanatory variables, he argued that FDI in Chile contributed positively but without high economic significance. By means of endogenous growth theory of Romer (1986) he suggested that increase in capital stock of 25% between 1990 and 1996 would have had greater spillovers if FDI was not concentrated in the primary sector. He contended that high presence of FDI in primary sector which use highly advanced technology has less potential for forward and backward linkages, an argument which resonates with that of Hirschman (1958). Ramirez (2008) did show that lower returns from FDI were due to the sectoral composition. As regards capital formation, he argued that the gains would only be ascertained if repatriation of profits and intra firm transfer pricing were subtracted from FDI inflows. Although the time period dates almost 20 years ago, the structure of the Chilean economy is the same. Sectoral distribution of FDI between 2009 and 2013 in manufacturing and mining was 4.9% and 45% respectively (Central Bank of Chile 2015)

Zambia

Simeo (2004) investigated the impact of FDI on economic growth and gross domestic savings between the period 1970 and 2000. The study found that FDI had a positive though minimal contribution to economic growth. The study also showed that the contribution of gross domestic saving and FDI to economic growth were not significantly different and therefore recommended the promotion of FDI. Simeo (2004) used the Granger causality tests and employed GDP growth and FDI flows as a percentage of GDP. However he added foreign debt as an explanatory variable to his model arguing that debt was a source of inflow. This may have influenced his findings. Nevertheless, this external debt though it is a capital inflow is contrary to the definition of FDI unless the foreign debt was that from foreign affiliates to the FDI enterprises.

Hansen and Rand (2005) investigated the impact of FDI across 31 developing countries in Africa, Asia and Latin America. including Zambia. They modified Levine and Carkovic (2002) model discussed in the general studies who argued that FDI would have no impact on growth once other growth determinants were discarded. Using panel data from 1970 to 2000 and similar methodologies to those of Simeo (2004), they found that FDI has a long run effect on GDP. Contrary to Levine and Carkovic (2002) they found that regardless of the region and levels of development, FDI impacted growth positively. Nevertheless, they found that FDI has a greater effect on GDP if its proportion of GFCF is higher. In this case therefore, it is inferred that FDI impacts positively on growth through the transfer of technology.

Table 2.2: Summary of Comparative Studies

Study Year	Country	Period	Major Finding of Impact of FDI on Growth
2007	Indonesia	1997-2006	Positive
2003	Several Including Indonesia	1981-1999	Positive and Significant in the Manufacturing
2004	Chile	1990-2003	Double Causality
2012	Chile	1991-2009	Positive
2008	Chile	1991-1996	Positive but not highly economically significant
2014	Malaysia	1971-2009	Positive
2008	Malaysia	1970-2005	Positive and attributed to presence in manufacturing
2004	Zambia	1970-2000	Positive but minimal
2005	Zambia	1970-2000	Positive and even higher if percentage contribution of FDI to GFCF is high

This chapter has identified various studies conducted on FDI in resource rich economies. Generally, Malaysia, Chile and Indonesia liberalised their economies much earlier than Zambia. Malaysia is the most developed economy from within the comparative studies. Although like Zambia they offered tax holidays to foreign investors, they started much earlier in 1986 and made deliberate policy to attract FDI in sophisticated technology production. Indonesia had a different case because they had stricter FDI policies except in the extractive sector which delayed the process of FDI flows in manufacturing. However, deliberate FDI policy in 1985 allowed the share of manufactured exports to grow. Chile, whose economic structure is most identical to Zambia due to the rich copper deposits have attempted to diversify their economy although they still have a heavy reliance on the mining sector. The purpose of the comparative studies was to draw lessons on policy and to show sectorial effects of FDI in resource rich countries like Zambia. Overall this chapter has shown that the impact of FDI on growth depends on the sector in which it is channelled. It showed that FDI has a greater impact on economic growth when it channelled to high tech manufacturing rather than the extractive sector. This to a large extent depends the kind of policy the respective government adopts as well as the nature and form of FDI.

Chapter 3

Background

This section of the paper will discuss the background of the Zambian economy. The first component will confer the structure of the economy to be followed by the history of FDI as well as the Investment Policy. Thereafter the chapter will show the link between FDI and the Mining sector. This segment of the paper also addresses whether or not the investment policy in Zambia has promoted FDI in other sectors apart from Mining. For purposes of the argument presented thus far, a comparison of the mining sector and manufacturing sector is eminently presented.

3.1 Zambia's Economy

For simplicity, I have segmented Zambia's economic history under two main subsections. The first regime under one party rule and the second under multi-party democracy.

Table 3.1: Terms of Rule

Year	Type of Rule	Party	President
1965- October 1991	Socialist State	United National Independent Party	Kenneth Kaunda
November 1991-2001	Democracy	Movement for Multiparty Democracy	Frederick Titus Jacob Chiluba
2002- August 2008	Democracy	Movement for Multiparty Democracy	Levy Patrick Mwanawasa
November 2008-2011	Democracy	Movement for Multiparty Democracy	Rupiah Banda
2011- October 2014	Democracy	Patriotic Front	Michael Chilufya Sata
January 2014- date	Democracy	Patriotic Front	Edgar Lungu

Source: Author's own

3.1.1 First Regime 1965- October 1991

Like most new independent economies, Zambia enacted nationalist policies from 1964 onwards. This was so to acquire majority shareholding interest in foreign owned firms (those whose operations began during the colonial regime). It was done with each sector falling under an umbrella state parastatal; Industrial Development Corporation (INDECO) for industries, Mining Development Corporation (MINDECO) for the mines and Finance and Development Corporation (FINDECO) for insurance companies, commercial banks and building societies. All three were in 1971 converged into one large parastatal called Zambia Industrial and Mining Corporation (ZIMCO) (Roberts: 2015).

At independence, the new government continued with the rigorous trend of mineral excavation as had the colonial regime. However, its plan was to shift economic activity from principally mining to manufacturing by means of import substitution industrialisation. To this end, the government enacted strong protectionist policies; high tariffs, price and exchange rate controls (Mazimba

1990). The high earnings from mining, principally copper, helped enhance the manufacturing sector. This resulted in the sector's increased contribution to GDP from 6.8% in 1965 at independence to 18% by 1980 (Ndulo and Mudenda 2010). Zambia's industry was much more promising than most Sub Saharan African countries. However, the total share of manufactured exports was relatively low accounting for only 1.3% and 0.7% of total exports in 1977 and 1980 respectively (World Bank 1984). The sub-sector with the greatest contribution to GDP under the manufacturing sector, basic metals, wood and metal products, was also allied with the Mines (World Bank 1984).

In the early 1970s, government struggled to procure new investments in the manufacturing sector which resulted in lower productivity levels. As a consequence, the sector was grossly underutilized (World Bank 1984: 14). This was worsened when the copper prices fell by 40% in the mid-70s, rendering the country's main revenue source unsustainable (Ndulo and Mudenda 2010). The slumping copper prices also created a lack of foreign exchange to be used for the importation of intermediate inputs. Consequently, total manufacturing output dropped by 12% in 1975 (Zambia in Figures Booklet 2014). This shock manifested the economy's vulnerabilities: natural resource dependent without a lucrative manufacturing base as contingency (Ndulo and Mudenda 2010).

Amidst prevalent macro-economic instability, of falling domestic savings, budget deficits and overall growth decline which compelled the government to borrow externally {debts which would prove difficult to repay as they fell due} (Macpherson 1995), was the oil shocks of 1973 from which no country was spared. The rising oil prices meant higher costs for fuel. By the late 1970s the situation had worsened (Saasa 1996). There was a sharp decline in copper production as there was increased pressure on ore ratios and challenges accessing mineral deposits due to outdated machinery. Without adequate foreign exchange to procure new equipment that would enhance output, production dropped by 33% between 1975 and 1984 (Saasa 1996).

The government was in need of quick measures to restore the economy, to which the IMF obliged by offering Stand-By Credit in 1984. Prior to this the IMF had come in 1973, 1976, and 1983 geared towards macroeconomic stability specifically budget deficits and fall in foreign reserves (Macpherson 1995). These programmes would also occur in 1984 and 1986 (IMF 2003). While the initial standby programmes had focused on demand side issues, from 1983 onwards the focus was on the supply side; specifically enhancing output in manufacturing, agriculture and mining (Mwanza 1997). In 1987, the Zambian government cut off ties with IMF and World Bank and embarked on a journey of self-reliance (Ndulo and Mudenda 2010). This entailed abandoning liberalization reforms suggested in previous stabilization programs. The reaction from the donor community was to cut off financial aid to Zambia. Without additional finance to meet budget deficits, the economy deteriorated further (Rakner 2003). By mid-1988, the government restored its relationship with IMF and World Bank (Saasa 1996).

From 1973 to 1990, the mining industry witnessed its greatest decline while the manufacturing industry was rising steadily. As at 1990, contribution of manufacturing sector to GDP stood at 23.7% while that of mining was at 6.6%. However, the percentage of manufactured exports was still low. This reinforced dependence on manufactured imports and even though the manufacturing sector was contributing highly to GDP, most of what was produced was consumed locally. With this kind of structure, any kind of export led growth, by definition was mainly as a result of ores and metal exports which constituted an average of 98% of merchandise exports from 1966 to 1979. This is demonstrated in the Table 3.2 and Table 3.3.

Table 3.2: Imports and Exports as a % of Merchandise Trade (Imports and Exports)- Selected Years ²

Year	Manufactures Imports	Manufactures Exports	Ores and Metal Imports	Ores and Metal Exports	Economic Growth
1966	79.4	0.2	0.9	97.9	-5.6
1970	76.5	0.2	1.2	99.1	4.8
1975	76.0	0.7	0.9	97.5	-2.3
1979	70.8	0.7	1.3	97.6	-3.0

Source: Author's computation using data from WDI. Accessed 24 October, 2015

Table 3.3: GDP Percentage Composition by Sector at Constant Prices³ 1965-1990

Sector	1965	1970	1975	1980	1985	1990
Agriculture, Forestry, Fishing	13.7	10.2	10.7	14.9	16.5	15.6
Mining and Quarrying	41.0	35.8	29.2	10.1	8.9	6.6
Manufacturing	6.8	9.9	10.8	18.9	20.3	23.7
Electricity, Gas and Water	0.8	1.2	3.3	3.2	3.5	2.4
Construction	5.8	6.4	9.5	5.1	3.7	2.5
Wholesale and Retail Trade	11.3	9.2	7.2	9.6	8.4	7.3
Restaurants, Bars and Hotels	0.6	0.8	1.3	2	2.5	2.2
Transport, Storage and Communications	4.6	4.0	3.9	5.8	5.3	4.1
Financial Institutions and Insurance	1.5	3.2	4.1	3.3	2.9	2.2
Real Estate and Business Services	3.0	4.2	4.9	7.1	8.6	7.4
Community, Social and Personal	9.0	11.2	12.3	17.0	17.6	15.4

Source: Author's computation using data from Zambia in Figures Booklet 2014

3.1.2 Second Regime 1991 to date

In 1991, Zambia had the first ever democratic election and Frederick Chiluba became president. A democracy also brought forth the relaxation of strong protectionist policies and abolition of excessive intervention of the state in economic affairs (Ndulo and Mudenda 2010). Among top priority was liberalisation of the economy in order to gain meaningful access to international finance. In addition to this, the new administration enacted the privatisation of all parastatals that were deemed inefficient. It reinforced the Structural Adjustment Programmes (SAP). The SAP included prudent fiscal policies geared towards elimination of budget deficits, monetary policies, interest rate and exchange rate liberalization as well as trade liberalisation (Saasa 1996).

It was generally expected that the policies would foster positive growth (Macpherson 1995). However, many factors defeated this objective. For example, a drought occurred in 1992 which reduced agricultural output by 39% compelling government to begin importation of maize (Rakner 2003) thereby stretching an already overstretched budget. In addition to this was a skyrocketing inflation rate of 165% (WDI 2015). To reduce budgetary pressure, the government cut off

² Data for consecutive years was unavailable and random years were selected.

³ Data for the whole period at the same prices was unavailable. 1965 refers to 1965 constant prices, 1970 and 1975 refers to 1970 constant prices and 1980 to 1990 refers to 1877 constant prices.

commercial maize subsidies. Consequently, money supply was regulated through the introduction of treasury bills (Zambia Economic Report 1994).

On the other hand, high inflationary pressure induced increase in the cost of inputs. As a consequence, the manufacturing sector was adversely affected (Zambia Economic Report 1994). Despite the influx of capital flows that the liberalisation had facilitated, the government was not able to induce modern technology in the sector. This resulted in a decline of 5.4% in terms of value added in 1994(Zambia Economic Report 1994). In the mining sector too, the government was unable to secure new investments for new mining operations and the old mines had been exhausted in terms of ore deposits. The decline in the three sectors resulted in a significant drop in Real GDP to -8% in 1994 from 6.7% in 1993(WDI 2015). Consequently, the country was not only running a budget deficit but a current account one as well of \$71 million as at 1994(Zambia Economic Report 1994).

Table 3.4: Imports and Exports as a % of Merchandise Trade (Imports and Exports) 1995-2014

Year	Manufactures Imports	Manufactures Exports	Ores and Metal Imports	Ores and Metal Exports	GDP Growth
1995	72.3	7.0	2.2	86.5	2.90
1996	73.0	9.4	2.4	78.4	6.22
1997	72.8	12.9	3.2	77.4	3.81
1998	73.0	13.7	2.0	70.4	-0.39
1999	76.9	16.8	0.8	63.7	4.65
2000	72.6	10.7	3.1	74.1	3.90
2001	78.8	14.3	1.8	70.5	5.32
2002	76.0	14.4	1.8	69.8	4.51
2003	74.1	15.3	3.1	67.5	6.94
2004	77.7	9.8	2.6	63.1	7.03
2005	78.1	8.8	2.6	71.7	7.24
2006	74.0	5.8	2.5	84.8	7.90
2007	76.4	7.3	4.7	83.0	8.35
2008	64.0	6.7	13.0	85.4	7.77
2009	65.1	8.4	13.3	81.1	9.22
2010	61.6	6.3	21.0	86.0	10.30
2011	69.2	10.0	17.6	80.7	6.34
2012	68.4	11.7	14.6	73.5	6.73
2013	67.1	15.9	17.2	69.5	6.71
2014	63.2	11.7	17.3	78.2	6.00

Source: Author's own using data from WDI. Accessed 22 October, 2015

Table 3.5: GDP Percentage Composition by Sector at Constant Prices. 1995-2013

Sector	1995	1997	2000	2005	2010	2013
Agriculture, Forestry and Fishing	28.02	23.56	23.75	16.38	9.88	8.71
Mining and Quarrying	6.46	6.74	4.16	7.59	12.88	10.38
Manufacturing	9.57	9.67	9.79	9.55	7.90	7.89
Electricity, Gas and Water	3.77	3.33	3.17	2.49	1.88	1.85
Construction	8.06	8.28	7.41	11.62	10.89	12.40
Wholesale and Retail trade	13.64	17.58	18.79	19.83	18.36	17.82
Restaurants, Bars and Hotels	1.70	1.79	1.79	2.13	1.69	1.50
Transport, Storage and Communications	2.68	2.73	3.26	3.94	7.64	9.09
Financial Intermediaries and Insurance	11.43	9.38	8.54	6.44	4.19	4.56
Real Estate and Business services	4.09	5.25	7.66	7.88	7.62	6.92
Community, Social and Personal Services	10.67	10.29	10.53	10.95	14.22	15.70

Source: Author's own using data from Zambia in Figures Booklet 2014

In terms of economic performance, the economy continued to be improving achieving consistent positive growth with the exception of 1998 when a negative growth of 0.39% was reported attributed to the East Asian crisis (Zambia Economic Report 1999). The reliance on primary exports is still evident (Table 3.4) despite many calls on export diversification away from minerals. In the same vein, that of manufactured imports is still dominant. Manufacturing contribution to GDP in the second regime experienced a relatively declining trend from 23.7% in 1990 to 7.9% in 2013 as shown in Table 3.3 and Table 3.5 respectively.

3.2 Foreign Direct Investment in Zambia

Although there were exceptional cases of FDI in Zambia prior to 1991, it was not captured in detail and data in some cases are unavailable. Notably, significant FDI was present in mining in 1982 when ZIMCO was converted to Zambia Consolidated Copper Mines. ZCCM itself was as a result of a merger between the Zambian government controlling 60.3 %, Anglo American Corporation with 27.3 shareholding interest and the remaining 12.4% by other private investors (Zambia Review 2015). With the previous regime having strong protectionist policies, the environment was not exactly conducive for foreign investment (Saasa 1996). However, this changed with the liberalisation of the economy in 1991.

3.2.1 Investment Policy

Investment policy was first introduced under the Investment Coordinating Committee guided by Investment Act of 1986(Simeo 2004). The Act was later amended by the Investment Act of 1991 and subsequently 1993 and 1998 which also facilitated the establishment of the Zambia Investment Centre (Simeo 2004). Their function was mainly to promote FDI that would meet the privatisation objective. Presently, investment policy is governed by the Zambia Development Agency (ZDA) under the auspices of the ZDA Act of 2006. This is the Act that replaced the Investment Act of 1998. ZDA is the institution mandated to promote both domestic and foreign investment. They are in charge of facilitating investor licences as well as assisting with the procurement of work permits for expatriate employees. Furthermore, the Agency also assists investors in obtaining

commercial or industrial land for business purposes (ZDA 2015). The ZDA Act (2006) clearly stipulates that growth will be enhanced via trade and private investment. The Agency supports both domestic and foreign investment through creating a favourable investment climate, proper infrastructure, export promotion, facilitating partnerships among local and foreign investors as well as smoothen bureaucratic procedures that investors encounter among others (ZDA 2015).

Generally incentives are provided for by specific legislation pertaining to the respective sector as well as the nature of the investment. Those relating to tax for example pertain to the Zambia Revenue Authority. Others fall under specific Acts under which that sector falls. For instance the Mines and Minerals Act for the mining sector (Zambia Investor’s Guide 2012). The ZDA Act (2006) offers investment incentives which pertain to “priority sectors” (Agriculture, Mining, Manufacturing and Tourism) as a whole and specific priority subsectors within the main sector. For instance under the Mining sector, Copper and Cobalt are among the priority subsectors. In the same regard, under the manufacturing sector, timber is an example of a priority subsectors (Zambia Investor’s Guide 2012). Below is a direct summary of some incentives available to the mining and manufacturing sectors as indicated in the Investor Guide (2012) and Investment Opportunities from ZDA.

Table 3.6: Summary of Selected Incentives for Mining and Manufacturing⁴

Mining	Manufacturing
<ul style="list-style-type: none"> • Tax Claim for inputs spent on pre-production activities for the first five years • 30% tax on large scale mines • 2% company tax discount for listed companies,7% if a third of the company is owned by Zambians • Duty free for importation on most capital goods • Any capital expenditure on buildings, equipment and related works qualifies for a 100% deduction • 3:1 debt to equity ratio • 10 year carry forward losses for copper and copper, five years for other mining • Capital allowance on buildings, plant and machinery equipment and no commercial vehicles of up to 25% • Buildings wear and tear allowance of 10% in first year and 5% thereafter • VAT relief on transfer of business, eligible capital goods and input tax • 0% tax of exports • For investment of USD 500,000 in a MFEZ, 0% tax, dividends, profits and import duty for first five years • For investment of USD 1,000,000 in a MFEZ, negotiations for additional incentives with government are provided 	<ul style="list-style-type: none"> • Tax claim for VAT on inputs three months before registration and 2 years before production commences • 2% company tax discount for listed companies,7% if a third of the company is owned by Zambians • VAT relief on transfer of business, eligible capital goods and input tax • Refund of VAT for Zambian goods purchased by non-resident • Wear and tear allowance of 50% of the cost implements, plant and machinery in the first 2 years • Buildings wear and tear allowance of 10% in first year and 5% thereafter • For investment of USD 500,000 in a MFEZ, 0% tax, dividends, profits and import duty for first five years • For investment of USD 1,000,000 in a MFEZ, negotiations for additional incentives with government are provided

Source: Summarized by author using data from ZDA Investment Opportunities <http://www.zda.org.zm/> and Investor guide <http://images.mofcom.gov.cn/zm/accessory/201209/1347391687778.pdf>

⁴ Information is a summary of incentives as presented in the Zambia Investor Guide and ZDA investment opportunities and not the author’s own.

3.3 The Mining sector and FDI

As already highlighted, the mining sector embodied by (ZCCM) with 60.3% government ownership and 27.3% foreign ownership by AAC was one of the crucial recipients of FDI in the old regime. ZCCM represented seven mining divisions namely: Nchanga, Mufilira, Nkana, Luanshya, Kabwe, Konkola and Power Divisions. In 1994, the new government began the privatisation process of the mining industry. The process was slow but steady with the final privatisation only occurring in 2000(Craig 2001).

Craig (2001) argued that during the period 1992 to 1996, the Zambian government struggled to find the appropriate strategy that would enable them to retain significant control over ZCCM, make Zambia the largest copper producer and simultaneously allow them to sell shares at the best possible price. The government and AAC finally settled on a “debundling strategy”. He maintained that this strategy entailed the splitting of the conglomerate and privatising the various divisions individually⁵. What followed was the Investment Holdings, a company in which the Zambian Government owned 87.6 percent with the remainder held by private investors (Zambia Review 2015). The structure was such that ZCCM IH retained minority shareholding in some of the mines. An overview of the mining sector and ownership structure is in the Appendix.

Mining in Zambia is regulated by the Mines and Minerals Act initially stipulated in 1995. Acquisition of mining rights was indicated by development agreements between the state and the investor. However, the Act was amended in 2008 and development agreements were nullified (Simpasa et al 2013). The subsequent Act allows holders of prospective mining licences to renew them up to a period of seven years as opposed to that of two years in the previous Act (Mines and Minerals Act 1995). However, the 2008 Act sets government strictly in a regulatory role overseeing the issuance of licences and promotion of mining activities (Mines and Minerals Act 2008). The 2008 Act increased revised fiscal obligations by mining license holders as indicated below.

Table 3.7: Mineral Royalties and Tax Allocation

Tax on Profit up to 8%	30% of profit
Tax on Profit above 8%	45% of profit
Withholding Tax on Dividends	0% on dividends
Transfer or sale of a Mining Right	10% of sale
Mineral Royalties on all minerals	6% of taxable income
Capital allowances rate for mining sector assets in use	25% capital allowance

Source: author's own computed with information from Zambia Review 2015 Booklet and ICMM (2014)

A case in point is that the reason the country does not benefit significantly from revenues generated from mining is due to the legislation governing mining as well as the seemingly low taxes levied on private investors. Simpasa et al (2013) argued that practices of transfer pricing by foreign investors as well as excessive incentives to them made the government not derive as much gains as it otherwise would have. Specifically, they argued that had the government implemented the 6% mineral royalty and 30% corporate tax much earlier, they would have realised approximately 3.7% of GDP in terms of revenue each year between 1997 and 2007. On the other hand, evidence indicates that copper production has increased to significant proportions since privatisation⁶. Perhaps a valid argument is that of the legislation which has not imposed stringent measures to avoid the full repatriation of profits to the foreign investors' country of origin.

⁵ A detailed history of the privatization of ZCCM is presented in Craig (2001) who carried put a case study.

⁶ Data Shown in Chapter 4

Simpasa et al (2013) argued that the development agreements that the Zambian government signed with investors in the mining sector proved to be detrimental in the long run. For one thing, they argued, the nature of the agreements were not strict on transfer pricing and the concessions offered were “over generous”. However, Simpasa et al (2013) maintained that the concessions and relatively liberal agreements were so because the mining sector had dilapidated infrastructure, high operational costs accompanied with falling copper prices. In addition to this, they argued that pressure from the IMF entailed that the selling off of ZCCM had to be prioritized. Simpasa et al (2013) also reasoned that in light of ZCCM’s debt position, privatizing it was the most feasible alternative. They claimed that with the enforcement of the 2008 Act, however, the Zambian government is likely to realise an additional 5 to 7 % between the period 2013 and 2025 because the revision in the fiscal regime as stipulated by the Act will bring additional income. For now this analysis remains hypothetical as royalty for instance depends on the level of taxable income. Secondly copper prices have continued to fall since 2014 which automatically affects the amount to be generated on tax on profit.

The International Council on Mining and Metals (ICMM) recorded that the tax regime shown in Table 3.7 indicates that Zambia has one the highest proportions of revenue contributed by mining tax in the world (Zambia Review 2015). In 2007, the government introduced a windfall tax which was as a result of the booming copper prices. This is a tax that Mining Licence holders pay when profits realised are extraordinarily high as a result of booming prices. However with the advent of the 2008 global financial crisis, the government had to reverse this decision as copper prices fell drastically (ICMM: 2015). Calls for the reintroduction of the windfall tax were made by the wider public after the global economy began to stabilise. However, the Patriotic Front government (ushered into power after the 2008 General Elections) reiterated overtime that the tax would not be reintroduced (Zambia Review 2015). Nevertheless, the 2015 national budget proposed the increase of mineral royalty from 6% to 20% for underground mines and 9% for open pit mines (Mvula 2015). After much deliberation among stakeholders, in April 2015 the government announced that the royalty would reduce to 9%. The proposal was approved in June 2015 and took effect on 1 July, 2015 (Mvula 2015).

This section of the paper has answered the question of how Zambia’s investment policy has promoted investment in other sectors. Generally it does appear that investment policy has been favourable to other sectors in this case manufacturing. However, the dependence on mining has to a large extent created a bias to the level of incentives available to the mining sector. This has allowed increasing FDI flows in the mining sector. Ideally, this would imply increase in growth as revenue contribution through the mining sector has grown steadily over the years. Nonetheless, the Mining contribution to GDP has in fact declined. The chapter also addressed a series of macroeconomic imbalances that have stemmed from the dependence on mining since 1965 when Zambia gained independence. The evidence pointing to the fact that the fluctuations in the sector’s performance have had dire consequences should itself signal the urgent need for a diversified production and export structure. FDI towards the manufacturing sector and away from mining may be the key to meeting this objective.

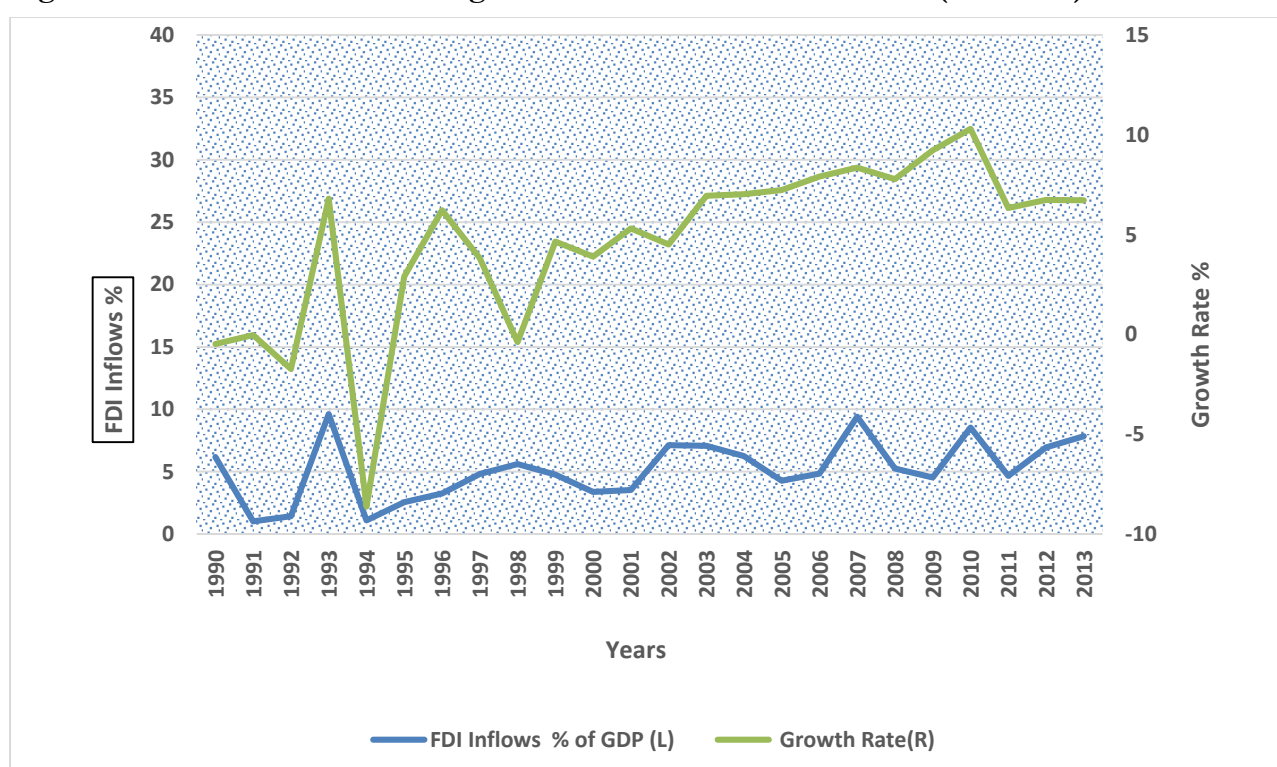
Chapter 4

Data Analysis

This section of the paper will analyse FDI trends vis a vis economic growth. The period of analysis is mainly 1990 to 2013 which is the period in which FDI flows increased as a result of liberalisation of capital flows. It will attempt to answer the other two research question on the extent to which FDI has impacted growth as well as whether the concentration of FDI in the Mining sector is capable of driving dynamic growth. The latter part addresses commodity dependence and export diversification. It will conclude with a summary of interviews conducted.

Impact of FDI on Economic Growth

Fig 4.1: FDI Inflows as a Percentage of GDP and Economic Growth (1990-2013)



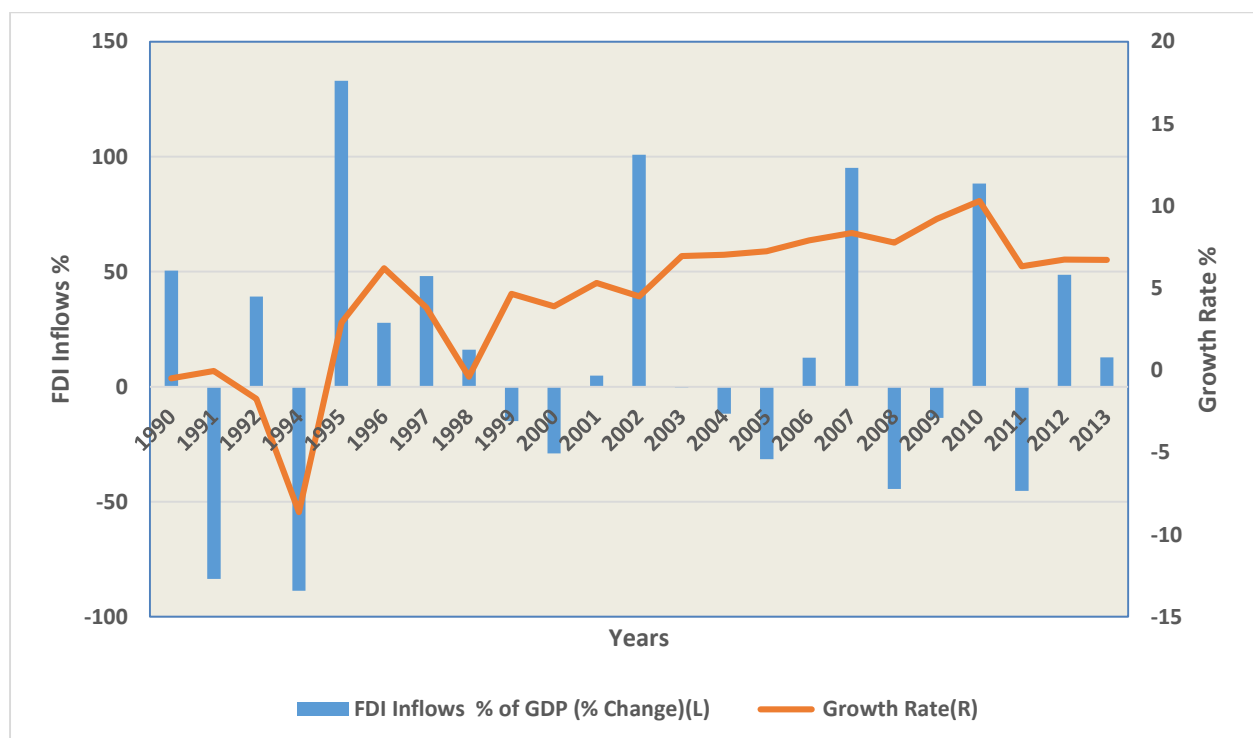
Source: Author's own using data from UNCTAD FDI/TNC Statistics and WDI. Accessed 23 October, 2015

Table 4.1 clearly indicates that FDI inflows have been on an upward trend. The highest FDI inflows first experienced in 2010 at \$1.7 billion from \$694.8 million the previous year. The reason for this rise in investment was in line to the global upsurge of FDI at the inception of the recovery after the 2007/ 2008 global crisis (WIR 2010). Zambia continued to receive substantial investments from emerging economies specifically India and China with the bulk of the investment channelled to the mining sector (FPIIP 2011). However, it fell again to \$1.1 billion in 2011. This was due to loss of investor confidence as a consequence of the uncertainty of the 2011 general elections which were a result of the demise of the incumbent, President Levy Mwanawasa. With the smooth transition into the new regime, investor confidence was reinstated and FDI inflows rose to \$1.7 billion in 2012 (FPIIP 2012).

The figure also shows some outliers which are important for understanding this study's objectives. In 1993, FDI contributed its greatest to GDP. This was due to the high inflow of capital during

privatisation. At the same time, growth of 8.2% was attributed to increase in output of agriculture and manufacturing not the mining sector. The agriculture sector value added rose by 79% due to favourable weather conditions of 1993 preceded by the drought of 1992 which had caused a decline of 35 % (Zambia Economic Report 1994). On the other side, the negative growth registered in 1994 was attributed to a steep decline in the agriculture output of 19% after another drought was experienced in 1994. In addition to this manufacturing sector registered a decline in value added of 12% because of the lack of new capital as well as high cost of inputs brought on by the high inflation (Zambia Economic Report 1994). It is important to note that of three main components of the real sector in Zambia, agriculture and mining are volatile based on weather conditions and commodity prices respectively. The only reason attributed to low output in the manufacturing was that of lack of capital infusion. On the basis of this information, investment in the manufacturing is likely to operate on relatively stable and predictable conditions.

Fig 4.2: FDI Inflows and Economic Growth- Percentage Changes (1990-2013)

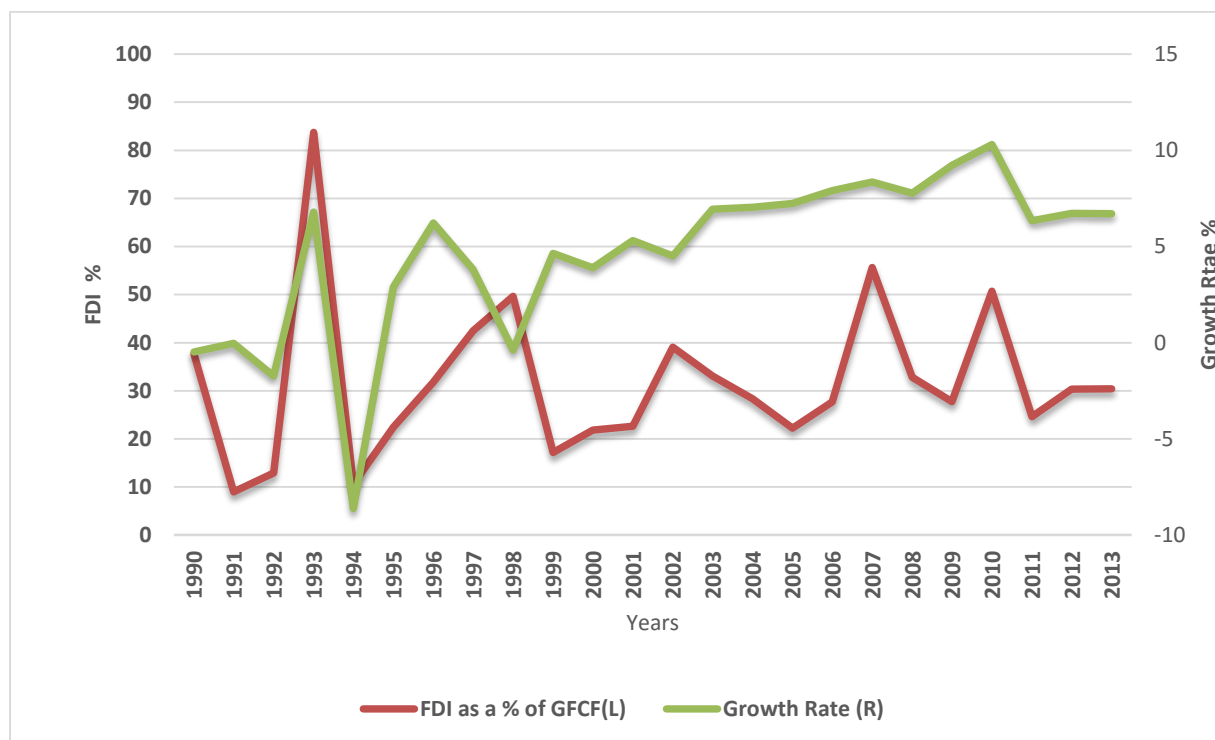


Source: Author's own using data from UNCTAD FDI/TNC Statistics and WDI .Accessed 23 October, 2015

Figure 4.2 indicates an obvious relationship between FDI and economic growth prior to 2000. A drop in the percentage contribution of FDI to GDP would also indicate a drop in GDP and the same with an upsurge. The only exception was 1999 and 2000 which was attributed to the Asian crisis. From 2001, the pattern becomes less predictable. In certain years a rise in GDP is accompanied by a fall in the contribution of FDI to GDP. In other years, when FDI rises, the GDP growth falls. Another factor occurs with the decline of FDI in 2008 and 2009 of 44% and 13% respectively, the GDP rises from 7.7 to 9.2%. These results suggest that FDI has an obvious impacts positive impact on growth when it is not in the extractive sector. The same results were shown by Nunnenkamp (2002) who argued that causal links are hard to establish when FDI is natural resource based .Most importantly, the impact of FDI on economic growth is greater before 2000 which is the period when FDI was not concentrated in the mining sector. For example a ten year average from 1991 to 2000 and 2001 to 2010 shows that FDI impacts growth by 62.7% in the former compared to the 4.6% in the latter. These findings also confirm those of Kahliq and Noy (2007) in the case of Indonesia. However, they are contrary to those of Levine and Carkovic (2002)

that FDI would impact positively on growth when other growth determinants were present. As is evident, FDI after 2000 in most cases moves in the opposite direction of economic growth.

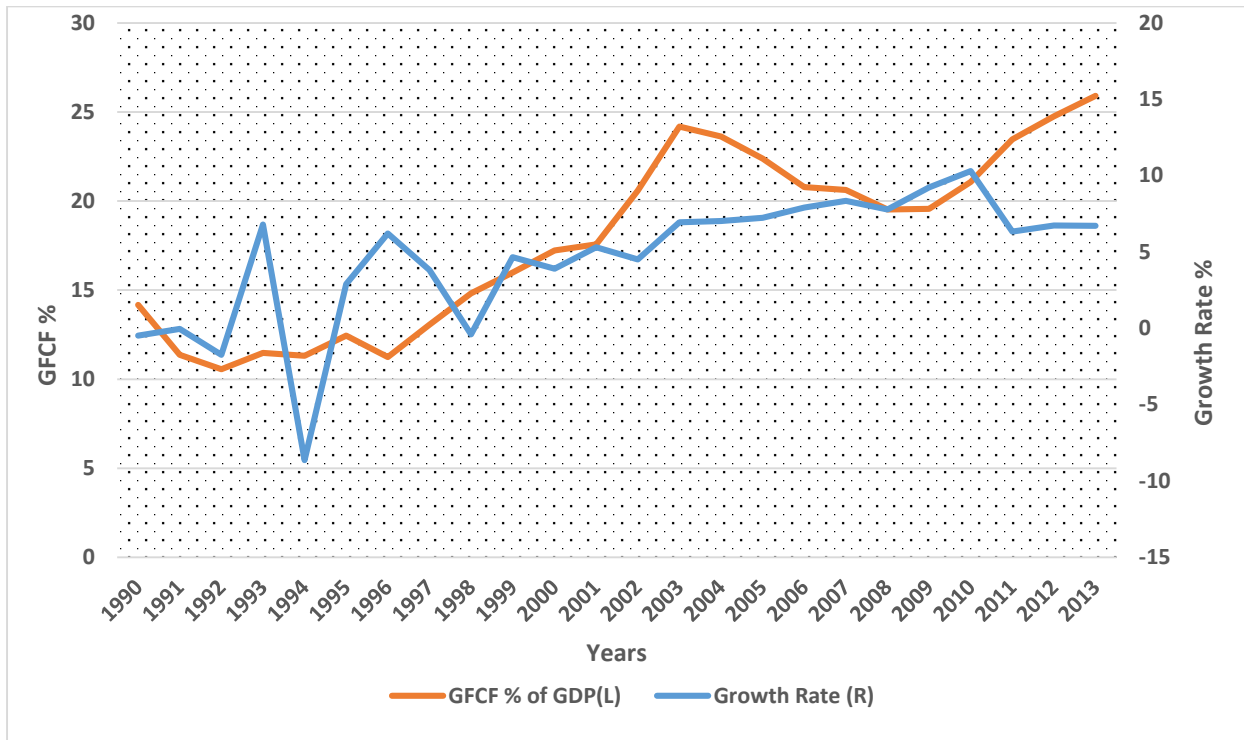
Figure 4.3: Growth and FDI vis Gross Fixed Capital Formation (1990-2013)



Source: Author's own using information from WDI. Accessed 24 October, 2015

Figure 4.3 and 4.1 together illustrate that the higher the FDI flows, the greater the possibility of it contributing to GFCF. This represents a strong relationship between the two variables. Evidently, GFCF rises with increase in FDI flows. The highest FDI as a percentage of GFCF of 83%, 55% and 50% shown in 1993, 2007 and 2010 respectively had a corresponding growth rate of 6%, 8.3% and 10.2% the respective years. The highest GFCF of 1993 occurred when FDI was spread over to other sectors mostly manufacturing and food processing sectors. The high levels of FDI in GFCF show that FDI could impact growth positively. Hansen and Rand (2005) findings discussed in chapter 2 argued that FDI has a greater effect on growth if it's fraction of GFCF is higher. However, this is not guaranteed because it also relates to which fixed assets comprise the capital formation. In addition to this, as Ramirez (2008) argued in the case of Chile, it is difficult to ascertain the direct impact of FDI inflows on GFCF if intra firms transfer pricing and profit repatriation are not deducted from FDI inflows. This is in essence what Simpasa et al (2013) argued that gains from FDI in the mining sector in Zambia could not be ascertained due to possible practices of transfer pricing. Although, it cannot be said from this study that there have been instances on transfer pricing, the graph does show that increasing FDI as a percentage of GFCF is not always accompanied by increasing growth. The following graph illustrates this point more sternly.

Figure 4.4: Economic Growth and Gross Fixed Capital Formation(1990-2013)

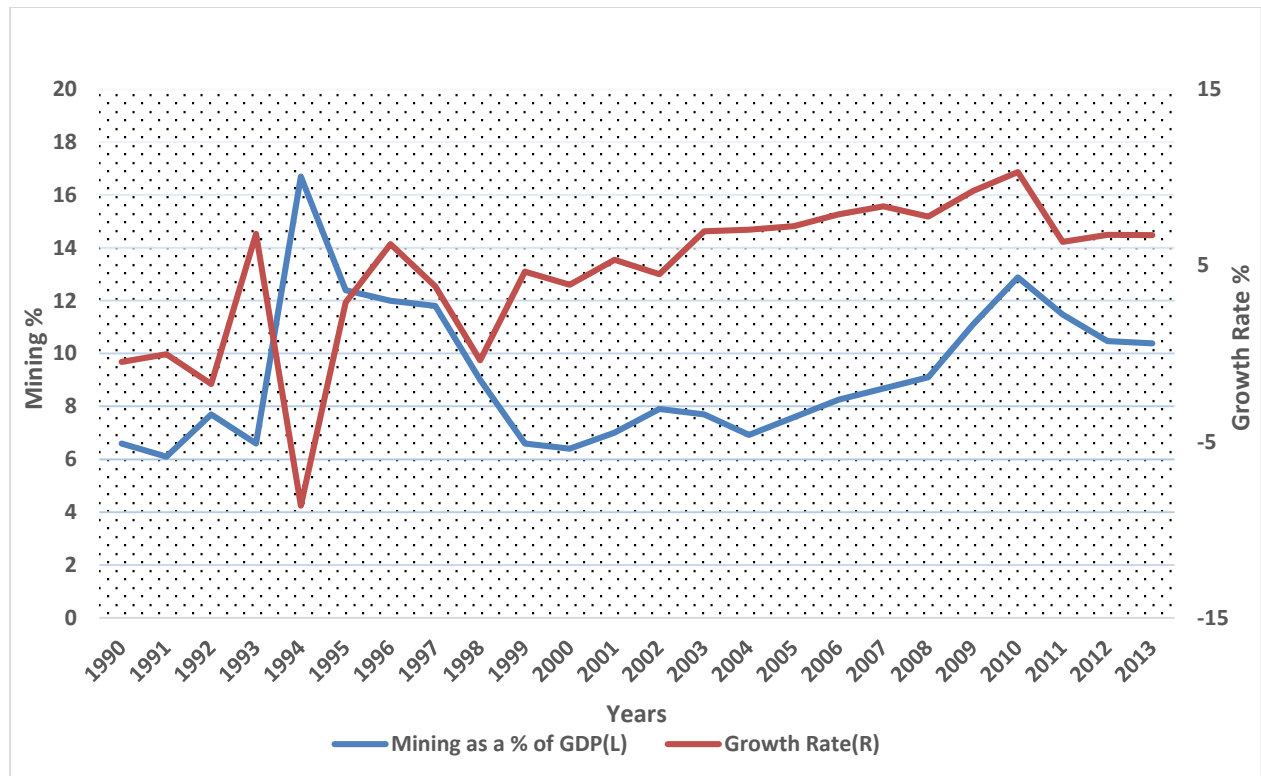


Source: Author's own using data from UNCTAD FDI/TNC Database Statistics and WDI. Accessed 7 November, 2015

Gross fixed capital formation as a percentage of GDP measures how much of an economy's output is expended on the improvement or the acquisition of fixed assets for instance machinery, equipment, and infrastructure and so on. Since investment is an important aspect for achieving economic growth, an increasing GFCF will show that the level of investment has increased against consumption. Figure 4.4 shows that GFCF has been above 15% from 2000 onwards. Based on the results in Figure 4.3, the rise in GFCF is attributed to increase in FDI flows. However, the rise in GFCF in this sense comprises high capital machinery going to the mining sector which for many years had experienced low output with dilapidated infrastructure being one of the key reasons. In this manner, it cannot be argued that FDI leads to growth through GFCF. As Ramirez (2008) argued in the case of Chile, substantial FDI flows in the case of GFCF if directed to the mining sector do not result in high growth because value added per worker is relatively low compared to the manufacturing sector. In addition to this, the technological spill overs are much lower than the manufacturing sector. This view was also shared by Hirschman (1958) that FDI in the extractive sector left little evidence on growth due to its relatively less potential for linkages. In the case of Zambia, the GFCF may not even have a higher effect because the FDI has channelled mostly through acquisition of existing mines as opposed to Greenfield investments. Since mining licence holders have incentive of free importation of capital machinery, possibility of linkages that provide this machinery locally are hampered. This also allows capital formation from FDI to command a relatively high proportion.

Impact of FDI on Growth –Mining and Manufacturing Sectors

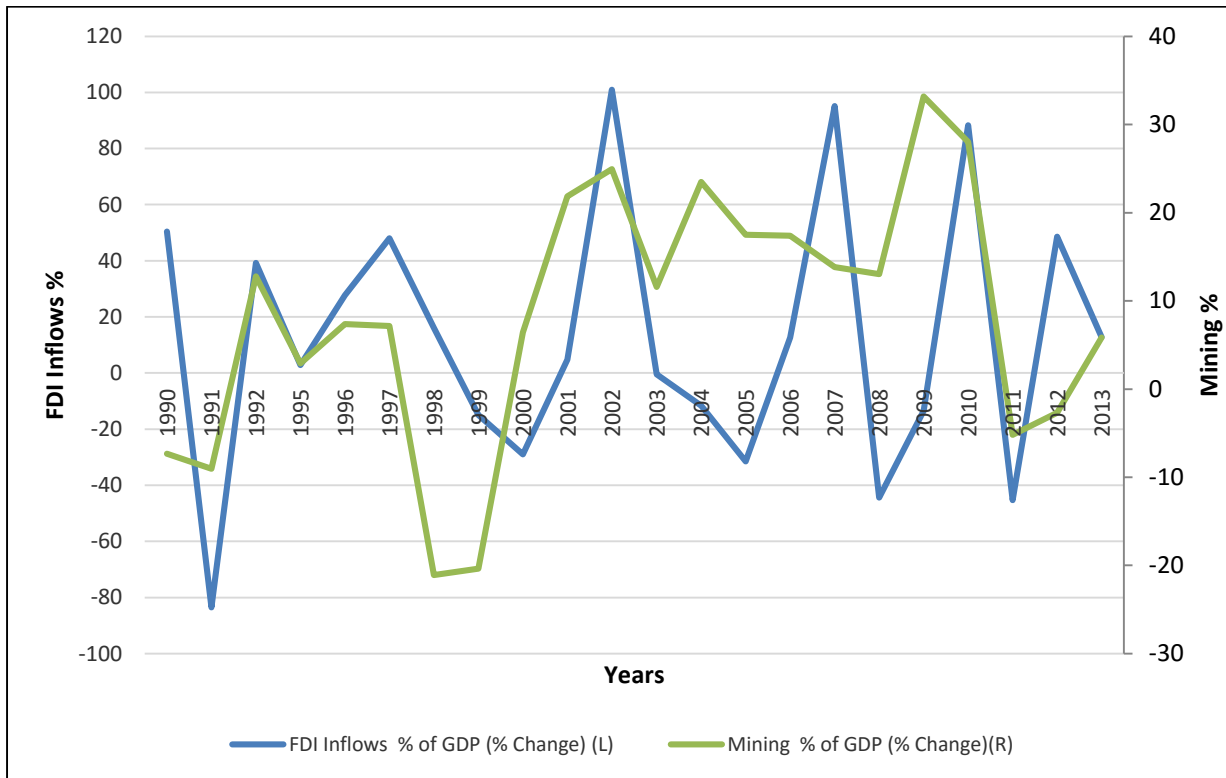
Figure 4. 5: Mining and Growth (1990-2013)



Source: Author's own using data from WDI and Zambia in Figures Booklet (2014) and UNCTAD Statistics. Accessed 24 October, 2015

Figure 4.5 shows the mining sector's contribution to GDP and growth overtime. It is evident that increasing growth cannot be directly attributed to the level of mining sector's contribution to GDP. In other words, increased sectoral output has not corresponded with economic growth. In 1994 for instance, when output was at its highest, economic growth was at its lowest. The negative growth registered in 1994 for instance was mainly attributed to poor performance in agriculture, mining and manufacturing with value added falling by 19.8%, 12.7% and 12.1% respectively (Zambia Economic Report 1994). However, in concurrent years the mining sectors contribution to GDP would be lower than that in 1993 and yet a positive economic growth was registered. This being the case, the likely effect of FDI on growth if it's in the mining sector is not dynamic.

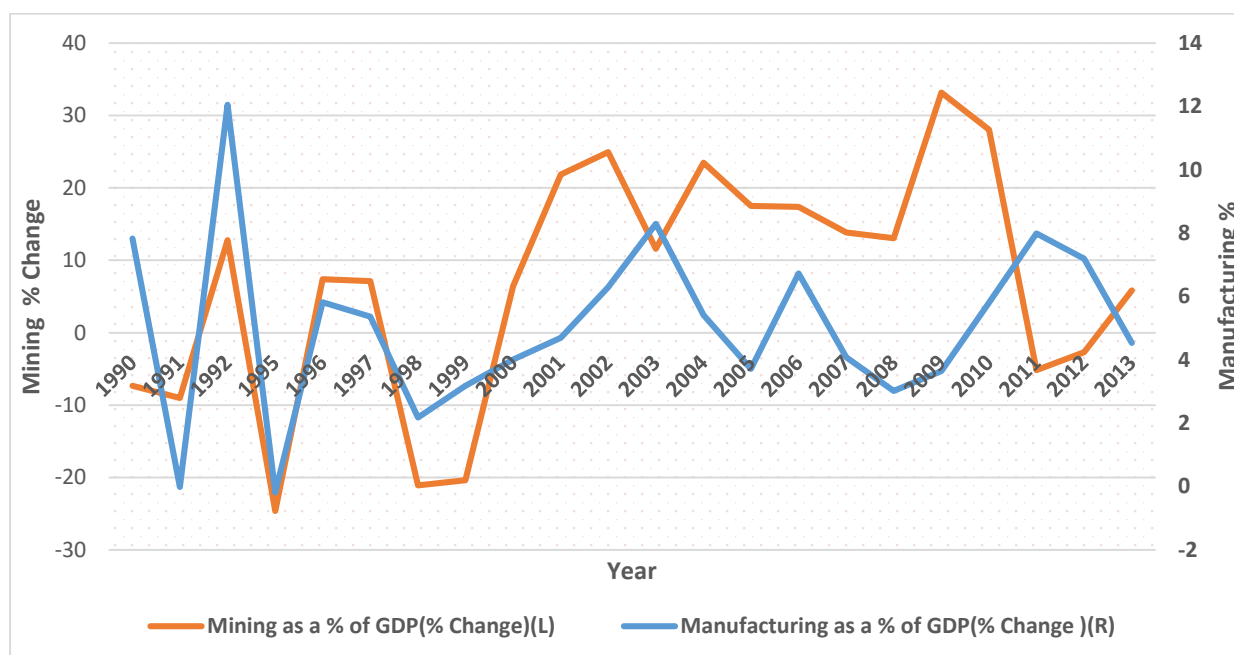
Figure 4.6: FDI Flows and Mining as % of GDP Percentage Changes (1990-2013)



Source: Author's own using data from World Development Indicators World Bank. Accessed 22 October, 2015 and Zambia in Figures Booklet (2014)

Figure 4.6 also clearly indicates the relationship with FDI and Mining. The steep drop in FDI flows in 1991 could be attributed to investor scepticism over the change of government in 1991. The decline in mining productivity prior to 2000 was attributed to the slow process in the privatisation of ZCCM which was said to have caused the inability to generate fresh capital in the sector (Zambia Economic Report 1999). It was therefore hoped that with the completion of the privatisation phase, mining output would increase considerably. In fact output increased by 429% between 1999 and 2013(Zambia Data Portal 2014). This is in line with Hirschman (1958) unbalanced growth theory. FDI has allowed one sector to dominate over others because a high percentage of flows have been channelled to the mining sector. This by definition, frustrates the objective of sustained long term growth which requires a diversified production structure. As shown in figure 4.5 and 4.6, percentage changes in the output of the mining sector are not matched with increase in the sectors contribution to GDP. These findings tally with those of Nazmi (2008) that increasing FDI flows to the mining sector improves the sectors output but modestly increases its overall contribution to GDP.

Figure 4.7: Mining and Manufacturing Output -Percentage Changes (1990-2013)



Source: Author's own using data from Zambia in Figures 2014.

Figure 4.7 shows that although the manufacturing sector's contribution to GDP has in most times exceeded that of mining in terms of percentages (shown in Table 3.5), percentage changes show that mining has been on a rising trend following the advent of FDI flows in the mining sector. Figure 4.7 shows that from 2000 onwards, mining contribution changes relatively higher than manufacturing. This confirms that FDI indeed has contributed to increasing output in the mining sector.

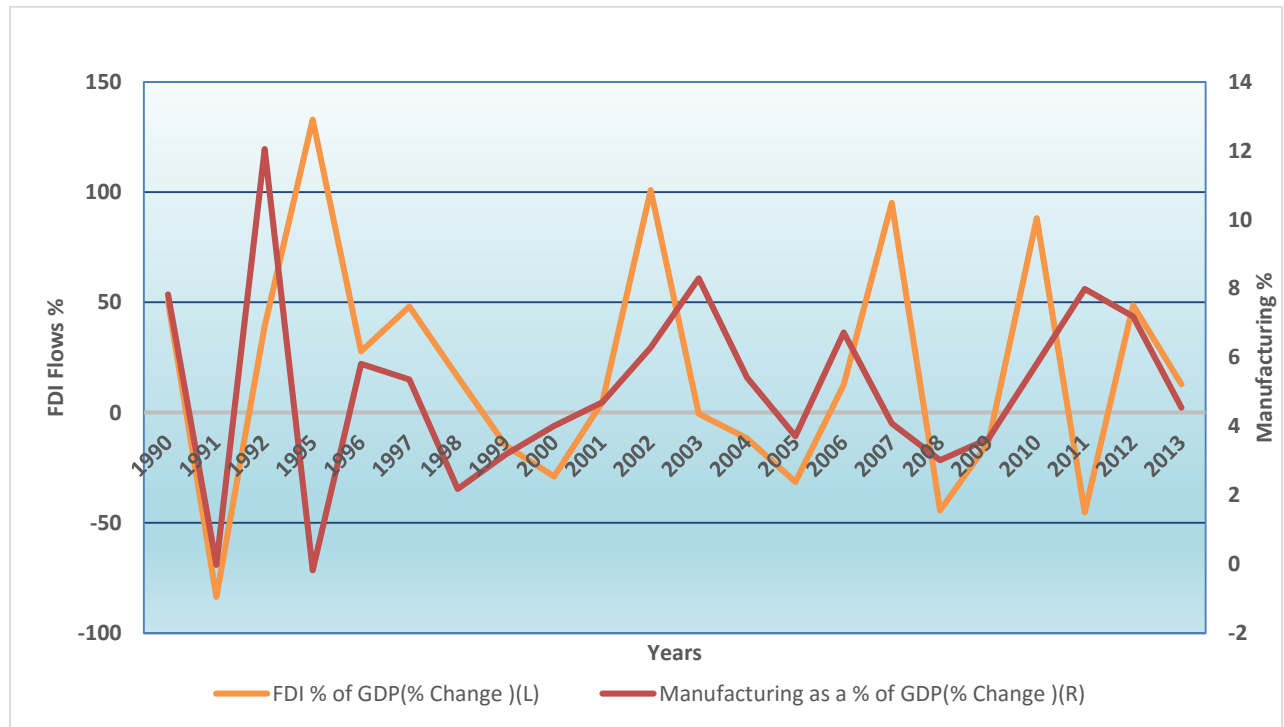
Figure 4.8: Mining and Copper Prices-Percentage Changes (1990-2013)



Source: Author's own using data from Zambia in Figures 2014 and UNCTAD Statistic. Accessed 24 October, 2015

Figure 4.8 above shows the interaction of mining output percentages changes against copper prices. Here copper price is used as a proxy because copper comprises 80% of mining output and exports. The figure shows that contribution of mining to GDP is not determined by copper prices. This is in line with Chenery and Strout (1966) theory that earnings from primary products are determined by demand and not necessarily price. It also confirms the hypothesis by Prebisch (1950) about price and income elasticity of primary commodities. Significant changes in prices are not accompanied by significant changes in supply or even demand for that matter.

Figure 4.9: FDI and the Manufacturing Sector- Percentage Changes (1990-2013)



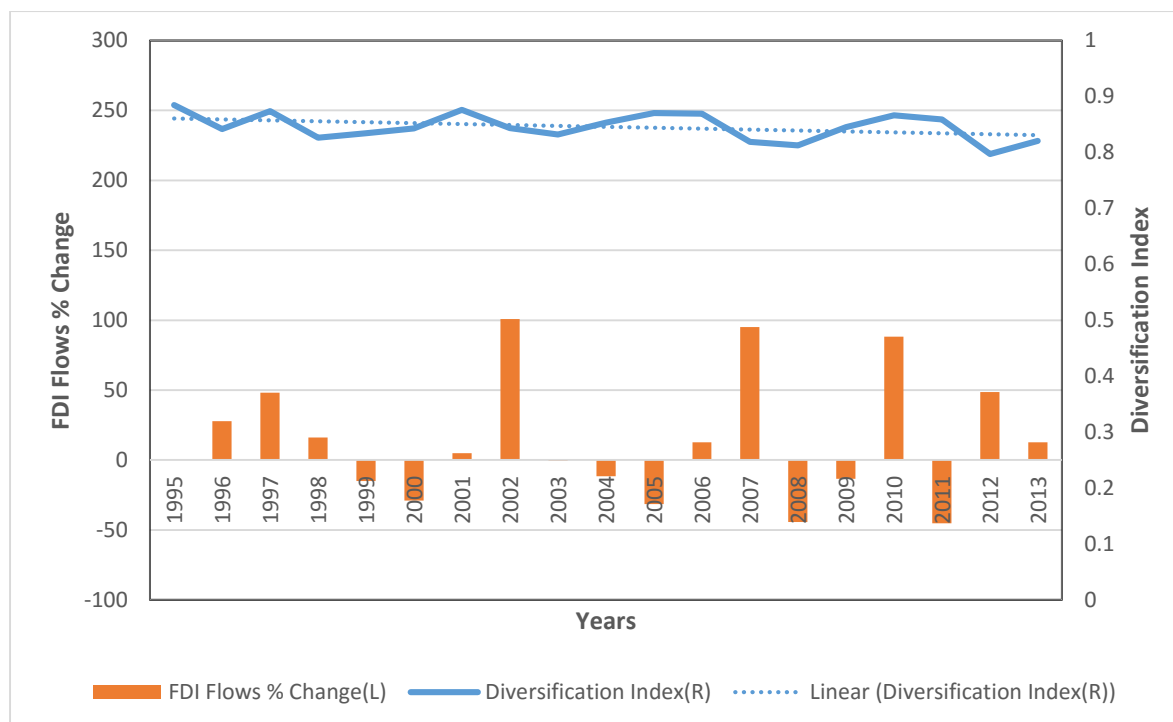
Source: Author's own using data from Zambia In Figures Booklet (2014) and WDI Accessed 22 October 2015

Figure 4.9 indicates the interaction of FDI and manufacturing. As was shown in Table 3.6 in Chapter 3, investment policy has also provided attractive incentives for the manufacturing sector even though they may not be matched with mining. However, even when FDI as a percentage of GDP has been at its highest, which automatically means that investment in mining was highest, manufacturing still had a greater stake in terms of contribution to GDP. Interestingly however, the output in manufacturing has not been matched with increase manufactured exports as a percentage merchandise exports (Table 3.2 and 3.4). The mining sector on the other hand has an average of 80% in terms of export contribution. The manufacturing sector, although it has experienced a consistent increase FDI from 2009 onwards, is not a highly sophisticated export oriented sector. Although FDI to the manufacturing sector has increased from 8.2% in 2008 to 21% in 2013, that of mining is still way in excess of manufacturing. Worse still, the latest share of manufacturing output is allied with the mining sector. Conversely, high tech manufacturing constitutes less than 15% of total manufacturing output (Manufacturing Sector Study Report 2012). Still the forward and backward linkages in the manufacturing sector were greater, as it was linked to both the primary and service sectors. The report maintained that the main challenge the country faced was that of shifting from a mono economy to a diversified one. It identified the main reasons as that of FDI going to the mining sector as a whole and to mining related manufacturing sectors. These results confirm those found by Alfaro et al (2003) and (Athukorala and Menon 1995) that FDI leading to rapid growth is positive in export oriented manufacturing

sector that produce high tech goods. Therefore it is not just a matter of channelling FDI to the manufacturing sector but specifically to the production of high tech export commodities.

Commodity Dependence and Terms of Trade

Figure 4.10 Commodity Export Diversification 1996-2013⁷



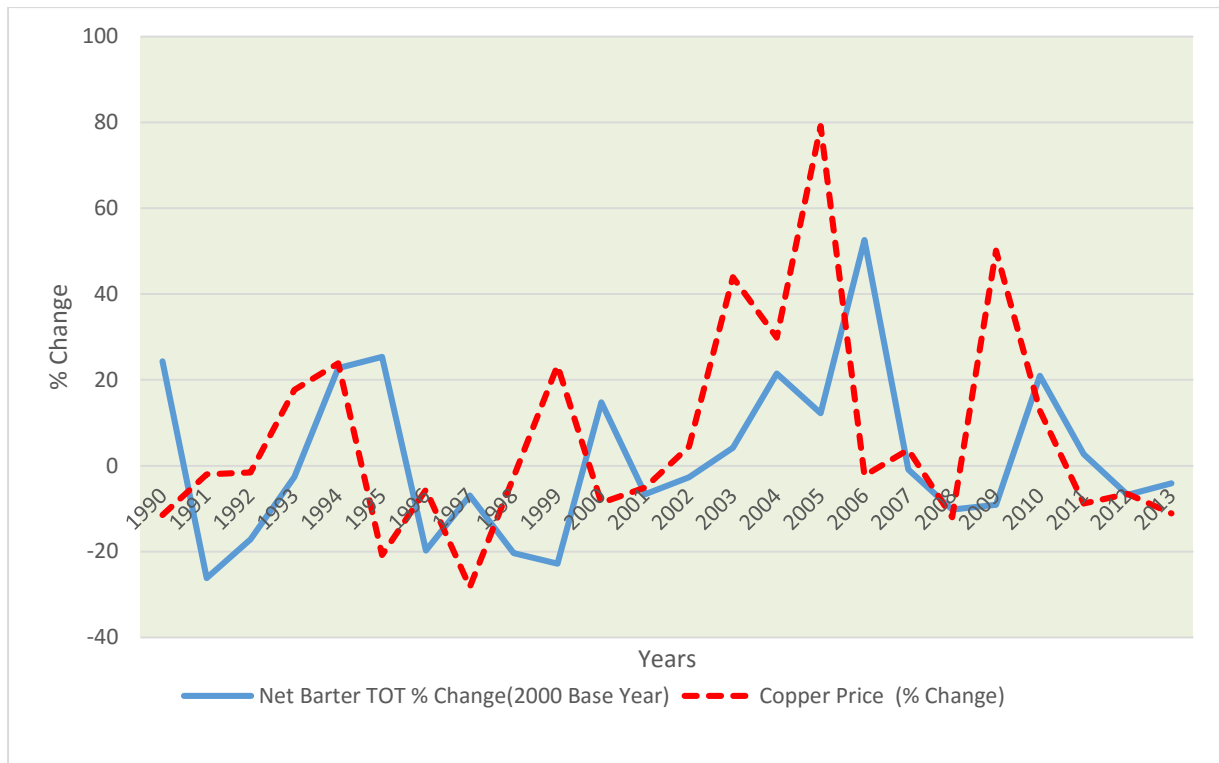
Source: Author's own using data from UNCTAD Statistics. Accessed 24 October, 2015

The diversification index is used with FDI flows here to see whether gains from FDI may have helped the country increase its diversification of exports. A diversification index lies between 0 and 1. The closer the figure is to one, the more concentrated the exports are indicating a lack of diversification. The index is more or less straight showing that there has been practically no significant change in terms of export composition. The fluctuations of the index are minor and it still lies above 0.8 indicating a highly concentrated export structure. In 2012 however, the index fell to 0.79 attributed to the rise in non-traditional exports by 68% which were as a result of increased exports of maize, electricity, cotton, fresh flowers, burley tobacco and gemstones (FPIIP 2013). Still, for a country that has been increasingly talking about the importance of diversification for five decades now, data shows contrary targets. If it is generally agreed among stakeholders promoting FDI that it leads to economic growth, then FDI flows to a natural resource sector by definition means that increased production and technology in this sector should lead to growth. The argument has already been presented that specialisation in primary commodities does not promote growth. Therefore, FDI, in the manner in which it is structured in Zambia, does not promote a diversified production structure leading to sustained growth. Athukorala (2006) argued that growth experienced in Indonesia from 1997 to 2007 was attributed to a shift from natural resource exports to manufactures exports, a shift which was facilitated by the increasing FDI flows in the manufacturing sector. However in Zambia, reliance on the primary sector has not enabled

⁷ Data on Diversification Index Available only from 1995

it to attract FDI that allows it to enhance diversified exports. These findings resound those of Nunnenkamp (2002).

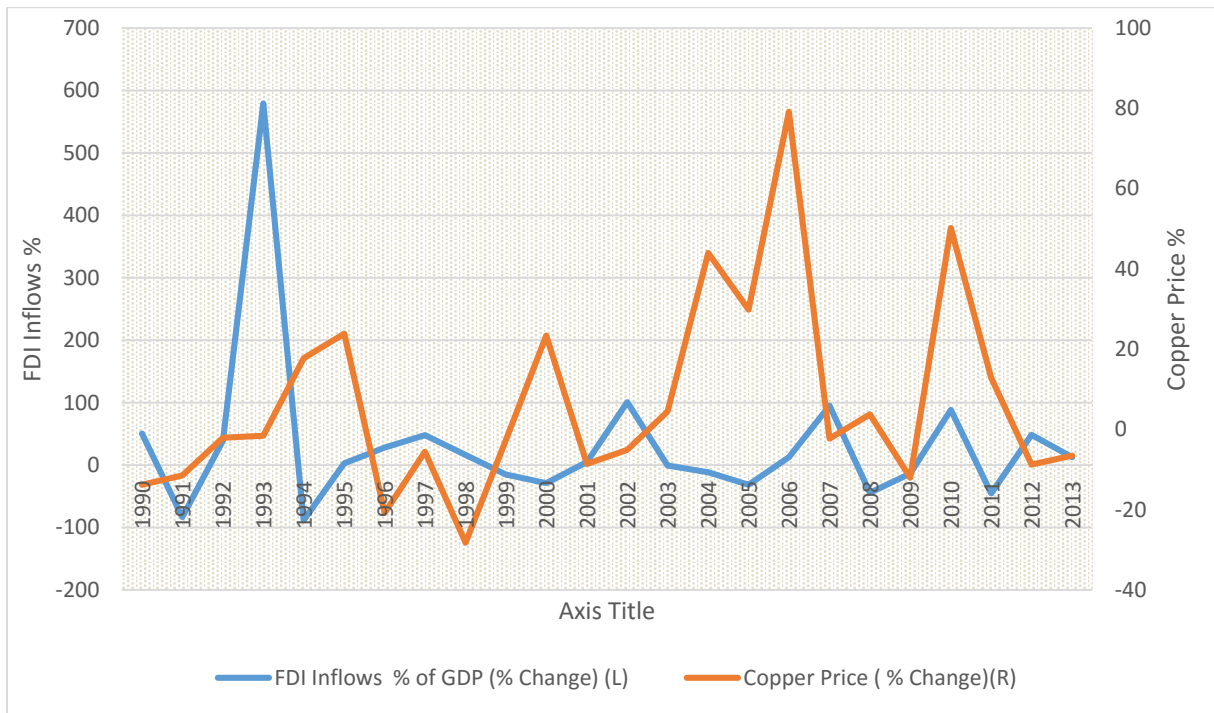
Figure 4.11: Net Barter Terms of Trade (1990-2013)



Source: Author's own using data from WDI and UNCTAD Statistics. Accessed 24 October, 2015

The discussion thus far has highlighted the theoretical position on Prebisch(1950) and Singer(1950) that terms of trade tend to work against primary export producers. Figure 4.11 shows how NBTT work in times of price booms, price slumps and crises. As is evident, in 1998 and 2008 during the Asian crisis and global crisis respectively, NBTT deteriorated against Zambia, falling by 6% and 10% respectively. Interestingly, in 2009 when copper prices rose by 50%, terms of trade deteriorated further by 9% confirming the hypothesis by Prebisch (1950) and Singer (1950) that primary export producers tend to be hit the hardest and effects tend to last for much longer. What is also interesting is that in periods when export commodity prices shoot up, the NBTT do not improve proportionally. In addition to this there is a lag between the rise in copper prices and the improvement in terms of trade. NBTT indicates the degree to which export earnings can cover imports. Figure 4.11 shows that the gains from primary commodity exports are tend to experience a declining trend. Secondly, the improvement in commodity prices, is not matched by a reduced reliance on imports. Therefore, even if the prices go up, it will only increase the propensity to import more.

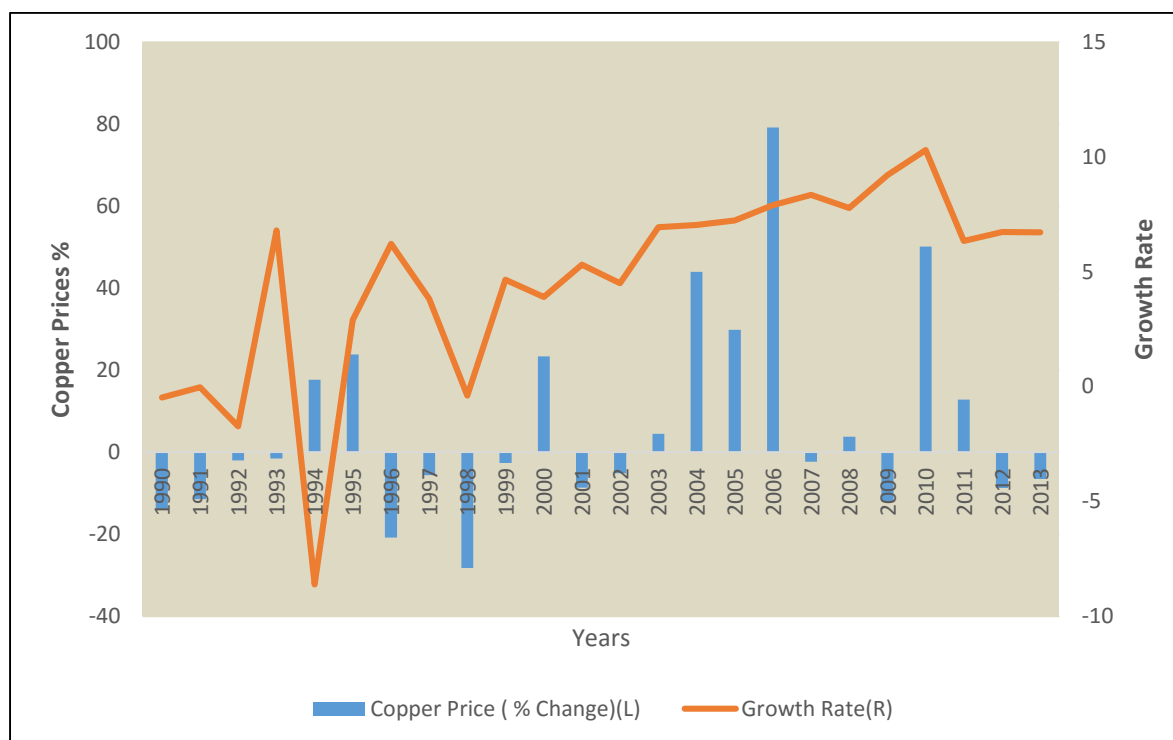
Figure 4.12: FDI Flows and Copper Prices (1990-2013)



Source: Author's own using data from UNCTAD Statistics. Accessed 24 October, 2015

Figure 4.12 illustrates the relationship between copper prices and FDI inflows in Zambia. Prior 1999 when FDI was spread out in other sectors, FDI flows were moving in opposite direction with copper prices. In other words, the levels of FDI were not determined by copper prices. From 2000 onwards as FDI in the mining sector begins to intensify, the level of flows is preceded by copper prices. If the copper prices are high, successive years have higher flows and vice versa. Three main conclusions can be drawn from these results. Firstly, because FDI has been concentrated in the mining sector, the pattern of FDI flows is mainly influenced by copper prices. Secondly, as Prebisch (1950) predicted, because financial crises affect primary commodities much more than they do manufactured exports, the pattern of FDI is grossly affected in times of crisis. Thirdly as was argued by (Nunnenkamp 2002), growth prospects are grossly affected when the long run decline in commodity prices is accompanied by resource seeking FDI. This is because the pattern of flows will follow commodity prices. WIR (2009) reports that for the first half of 2008, Zambia received increased FDI flows as a result of rising commodity prices prior to the crisis. However the decline began in the latter end of the year as the effects of the crisis hampered demand in major export markets.

Figure 4.13: Economic Growth and Copper Prices (1990-2013)



Source: Author's own using data from UNCTAD Statistics. Accessed 24 October, 2015

One critical observation of the variables above is that of the performance of GDP growth. As is seen in figure 4.13, the GDP growth is fairly stable despite declining prices. This is interesting because it signals the ability of the economy to grow in spite of fluctuations in the prices of its main export commodity. This shows the viability of other sectors contribution to GDP and how the economy can possibly flourish if the opportunities that other sectors offer were harnessed.

Primary Data- Interviews

For triangulation purposes, I carried out semi- structured interviews⁸ with officials from the ZDA and the Ministry of Mines and Mineral Development. Specific information from ZDA was sought on the nature of investment policy and the extent to which it promotes FDI in all sectors apart from mining. I was informed that the Agency has from inception promoted FDI in non-traditional sectors. The source who chose to remain anonymous argued that “Our agency is in charge of promoting all forms of FDI. Of course special incentives are given to priority sectors as prescribed by the ZDA Act of 2006. However, the agency gives incentives based on value addition rather than mining per se. You will find that now higher incentives are given to the manufacturing industry because its value addition and contribution as a sector is much higher”. A look at the ZDA Act 2006 did show that higher incentives are offered to priority sectors (agriculture, manufacturing, mining and tourism).

⁸ Interview guide attached in the appendix section

For the reason that gains from the mining sector are a contested issue, with speculation of over generous concessions and transfer pricing arising (Simpasa et al (2013), I sought information on the nature of agreements that the state signs with foreign investors. I was informed that there are no investor state agreements rather there is an Act guiding the acquisition of Mining licenses and operations thereafter. “The only law that is governing that is the Mines and Minerals Act which is currently under revision. All it takes is for the investor to obtain a License as facilitated by the ZDA. If the Investor is eligible and meets all the requirements, his application is approved. Initially there were some form of agreements but since the price of minerals is not static, these agreements would work in favor of either the state or the investor depending on the price of the minerals”. Indeed consultation with the Mines and Minerals Act 2008 did show that development agreement were nullified with the enactment of the Act. The source further argued that the gains from the mines cannot be stretched any more than they have because Zambia has a very high fiscal regime. “I think the problem is that the public is unaware of the history of these royalties. A comparative study with other countries shows that Zambia has the highest tax in the region even at the initial tax regime. If we are to remain competitive, we have to have a reasonable fiscal regime”. This confirms the findings of the ICM (2014) report on Zambia’s fiscal regime.

This chapter has shown that FDI flows impacted growth positively before 2000 when it was spread out to other sectors. However, after 2000 when it was concentrated in the mines, the pattern of FDI and growth was not moving in the same direction. It has also shown that FDI flows contributed to improving output in the mining sector which for a long time was under performing due to outdated machinery in terms of percentage changes. However, actual contribution of the sector to GDP has more or less remained the same over the years.

This chapter also showed that even though the manufacturing sector’s contribution to GDP has been greater than that of mining in most cases, manufactured exports command a small proportion of merchandise exports and therefore mining still retains its position of the greatest share in export earnings. This also shows that the FDI has not contributed to the country’s diversification of exports. To this effect, Zambia has continued to experience deteriorating terms of trade. Nonetheless, growth has also been achieved in times of deteriorating terms of trade as well as when commodity prices fall. This shows that the country is capable of growing even when the mining sector, upon which it has greatly depended, is underperforming.

Lastly, this section also included two interviews which were carried out with officials from ZDA and Ministry of Mines. The interviews confirmed that indeed incentives have been available to the manufacturing sector as they have in mining. The argument was that incentives are formulated based on value addition. However, this is contrary to the study’s argument because the mining sector has relatively lower value addition when compared to manufacturing and yet in Zambia it has received relatively generous incentives. It was also discovered that Zambia’s mining tax regime is amongst the highest in the region and therefore gains from mining in terms of tax and royalties are already high. Overall, this section has shown that the impact of FDI flows on growth was greater prior to the concentration of FDI in the mining sector. The first 10 years since liberalisation had an average of percentage changes of FDI to economic growth of 62.7% while from 2001 to 2010 the average percentage change is 4.6%.

Chapter 5

Conclusions and Recommendations

This study attempted to show the impact of FDI on economic growth in the context of a natural resource dependent economy. Even though there were cases of FDI flows before 1991, FDI flows in Zambia intensified after the liberalisation of the economy in the said year. The structure of the economy has been one of heavy reliance on the Mining sector with the major export commodity being copper. Although the adoption of neoliberal policies in 1991 allowed for the free flow of capital and hence FDI, the privatisation of the ZCCM (a state parastatal representing all the mines) only began in 1997 and was concluded around 2000. Since then, an average of over 50% of all FDI flows have been channelled to the mining sector.

The results show that FDI has had a positive effect on economic growth prior to 2000 when it was not concentrated in the mining sector. There was an average percentage change of 62.7% in terms of FDI flows contribution to GDP from 1991 to 2000. Conversely, there was an average percentage change of 4.6% in terms of FDI flows contribution to GDP from 2001 to 2010. From 2001 onwards, the impact of FDI on growth became less predictable with some years having low growth despite increased flows of FDI and vice versa. This is attributed to the difficulty in establishing causal links when FDI is concentrated in natural resource sector (Nunnenkamp 2002). This is because the natural resource sector is faced with impediments such as declining prices. Furthermore, FDI in the resource sector is by definition comprised of resource seeking investors. This makes it hard to establish any strong linkages with the domestic market (Nunnenkamp 2002). To confirm this, increased FDI flows have been preceded by rising copper prices and reduced FDI flows by price slumps. The results also showed that although FDI has been an important factor in mining output through recapitalisation which increased productivity the sectorial contribution to GDP has been more or less static in absolute terms.

The study shows that the mining sector is not capable of contributing to Zambia's economic growth dynamism. Granted the sector does contribute to economic growth but it is not the sector that is capable of driving Zambia on a sustained growth path. Principally, it is the greatest contributor to revenue, accounting for over 25% of total revenue. It also accounts for over 80% of exports. This has been detrimental because the copper prices have undoubtedly determined the terms of trade. Results show that in copper price booms, terms of trade swing in Zambia's favour. However, in times plummeting prices, the terms of trade deteriorate against Zambia. Nevertheless, the mere fact that the country has had the major part of its economic activity centered on a sector which relegates the economy to the price taker position is in itself a risk. Paradoxically, it is this same sector that has been the major recipient of FDI flows.

The study also explored the how policy may have affected the pattern of FDI flows. The results show that level of incentives offered in the manufacturing sector were also attractive although not exactly at par with the mining sector. Since it is established that the heavy reliance on primary export commodities have made the economy vulnerable to falling prices and other distortions in the global economy, it is important to review policy which promotes FDI in a non-traditional sector specifically manufacturing. ZDA Act of 2006 which is currently under revision has identified incentives that promote investment away from the mining sector. This has seen a fair rise in FDI towards manufacturing especially since 2010 although it is in the mining-related or consumer oriented sub sectors. The prevailing phenomenon of primary export production and exportation is matched almost proportionally with increasing manufactures importation. More so, it is also matched with underutilization of local capacity to grow the manufacturing sector to levels beyond producing just for the local market.

Also related to policy, previous concerns have been such that the reason why the country does not derive significant gains from the mining sector is because the tax imposed of the foreign investors in the mining sector is low. However, the research found that the tariffs are high and among the highest in the region. With many countries competing for the same set of investors, the Zambian government is under pressure to ensure that it offers the most attractive incentives for prospective investors. It appears therefore, that potential revenue from the mining sector cannot be stretched any more than it already has, when even in times of low output it stands as the greatest contributor to government revenue. A paradox often exists when it comes to attracting foreign investors in the mining sector. When conditions are stringent, investors will choose to go to countries that are more accommodating. In the same manner when incentives are generous, investors will be attracted to a point of depleting resources (UNCTAD 2011).

Since manufacturing incentives exist side by side with those in the mining sector, a key policy prescription would be either to relax incentives in the mining sector or increase those in the manufacturing sector in order to expand flows of investment in the latter. Lessons can be drawn from the Malaysian case that policy has a major role to play in influencing the impact of FDI on growth. One cannot rule out completely the benefits of FDI in mining based on the findings of this research. Since it has been discussed that one of the key reasons why FDI in the mining sector does not impact growth significantly is due to the minimal linkages, a key policy prescription would be to explore avenues through which linkages can be capitalised (UNCTAD 2011). One such technique can involve compulsory legislation that suppliers of goods and services used in to the mining sector have to be provided by domestic Zambian entities. In this manner, spillovers to the economy will be achieved. To this effect, areas of future research could investigate the effect of FDI on domestic firms before 2000 and after in order to establish conclusively which period offered greater spillover effects for local firms. In addition to this, future research could also look at the impact of FDI on growth using the service sector for comparison.

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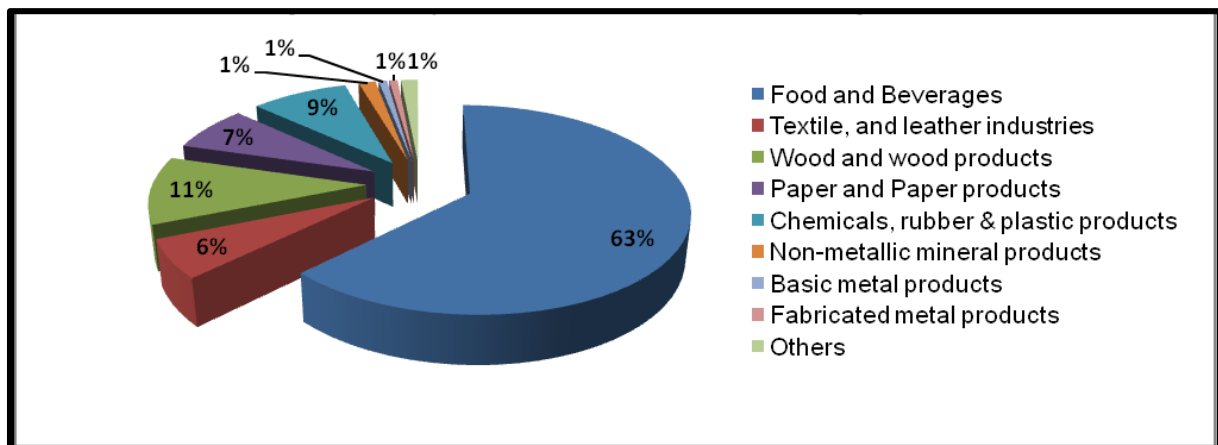
Appendices

Appendix 1: Composition Of Mining Sector

Metallic Minerals	Industrial Minerals	Energy Minerals	Gemstones
Gold	Feldspar	Uranium	Diamonds
Copper	Sands	Hydrocarbons	Emeralds
Cobalt	Talc	Coal	
Zinc	Barite		
Lead	Apatite		
Iron Ore	Limestone		
Manganese	Dolomite		
Nickel	Clay		
Platinum			

Source. Mining sector Profile ZDA. Accessed 24 October, 2015<
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Appendix 2: Composition of Manufacturing Sector



Source ZDA: Manufacturing Sector Profile (2014:3)

Appendix 3: List of Mines and Ownership Structure

Mining company	Owner	Type of operation	Location of main facilities	Annual capacity [metric tonnes]
Lumwana Mining Company	Barrick, 100%	Ore and concentrate	Lumwana mine [Malundwe pit]	20,000,000 ore
Kansanshi Mining	First Quantum Minerals, 79.4%, and ZCCM-IH, 20.6%	Ore and concentrate	Kansanshi mine, north of Solwezi	12,000,000 sulphide ore, 8,400,000 mixed ore, 6,100,000 oxide ore
		Metal	Kansanshi high-pressure leach and solvent extraction-electrowinning plant	250,000 copper cathode
Konkola Copper Mines	Vedanta Resources, 79.4%, and ZCCM-IH, 20.6%	Ore and concentrate	Chingola open pit A and Nchanga open pit, Chingola	4,500,000 ore
			Nchanga underground mine, Chingola	2,800,000 ore
			Konkola mine, Chililabombwe	2,400,000 ore
			Fitwaola open pit, Chingola	n/a
			Tailings dams reprocessing, Chingola	n/a
		Metal	Tailings leach plant at Chingola	80,000 copper cathode
			Nchanga copper smelter, Chingola	311,000 copper anode (blister copper), 3,000 copper-cobalt alloy
Nkana copper refinery, Kijwe	300,000 copper cathode			
Mopani Copper Mines	Glencore International AG, 73.1%, First Quantum Minerals, 16.9% and ZCCM-IH, 10%	Ore and concentrate	Nkana mine, including various underground and open pit operations	5,500,000 ore
			Mufulira mine	2,500,000 ore
		Metal	Mufulira <i>in situ</i> leach and solvent extraction-electrowinning plant	17,000 copper cathode
			Mufulira [blister] smelter	200,000 copper anode
			Mufulira refinery	275,000 copper cathode
			Nkana solvent extraction plant	15,000 copper cathode
			Nkana cobalt plant	2,400 cobalt metal
First Quantum Mining and Operations	First Quantum Minerals, 100%	Metal	Bwana Mkubwa solvent extraction-electrowinning plant, near Ndola	52,000 copper cathode
CONM Luanshya Copper Mines	NFC Africa Mining, 100%	Ore and concentrate	Baluba underground mine	1,800,000 ore
NFC Africa Mining	China Nonferrous Metal Mining (Group) Company, 85% and ZCCM-IH, 15%	Ore and concentrate	Chambishi mine	800,000 ore
Chambishi Copper Smelting Company	China Nonferrous Metal Mining (Group) Company, 60% and Yunnan Copper Industry (Group), 40%	Metal	Chambishi copper smelter	150,000 copper anode (blister copper)
Sino-Metals Leach Zambia	China Nonferrous Metals Mining (Group) Company, Sino-Africa Mining Investments, NFC Africa Mining and China Hainan Construction Company	Metal	Chambishi	8,000 copper cathode
Chibuluma Mines	Metorex, 85%, and ZCCM-IH, 15%	Ore and concentrate	Chibuluma South mine, 12 kilometres west of Kiewe	600,000 ore
Sable Zinc Kabwe	Metorex, 100%	Metal	Sable copper leach and electrowinning plant at Kabwe	14,000 copper cathode, 600 cobalt carbonate
Abidon	Jinchuan Group Resources Holdings	Ore and concentrate	Munali nickel mine in Mazabuka, about 60 kilometres south of Lusaka	about 1,200,000 ore
Chambishi Metals	Eurasian Natural Resources Corporation, 90% and ZCCM-IH, 10%	Metal	Chambishi cobalt plant	27,000 copper cathode, 3,400 cobalt metal
Lubambe Copper Mine	African Rainbow Minerals, 40%, VALESA, 40% and ZCCM-IH, 20%	Ore and concentrate	Lubambe underground mine, north of Chililabombwe	2,500,000 ore (commenced operations in latter half of 2012 and ramping up towards full production)

Source: ICMM Report 2014:31

Appendix 4: Interview Guide

INTERVIEW QUESTIONS FOR ZAMBIA DEVELOPMENT AGENCY-July 13.2015

- Your agency is in charge of attracting FDI in Zambia. Has FDI contributed to the economic growth in Zambia?
- Considering that Zambia is highly dependent on mining, what measures have you put in place that shifts attention of investors away from this sector to others such as manufacturing?
- Are FDI incentives sectoral specific or do they apply to all investors regardless of which sector they are investing in?
- How would you rate the sectoral distribution of FDI?

INTERVIEW QUESTIONS FOR MINISTRY OF MINES AND MINERAL DEVELOPMENT - July 13.2015

- 80% of FDI is concentrated in the mining sector. Is the FDI in mining sector capable of achieving dynamic growth in Zambia's economy?
- The Zambian government has further reduced the percentage of mineral royalties for underground mines from 9% to 6%. This will mean a decline in revenue that the government generates from FDI, what measures have been put in place to compensate for the loss?
- Many Zambians have lamented that the reason that the country does not benefit from the Mining sector is due to the loopholes in the investor-state agreements that govern the sector. What measures have been put in place to ensure that the government benefits significantly from these agreements?
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