

Investment Promotion;
Foreign Direct Investment Determinants and Policy Framework Analysis for India:
Lessons for Zimbabwe.

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by

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ABSTRACT

Today Zimbabwe finds itself on the cusp of a new era, an inflection point which should set the country on a path towards recovery and sustainable economic growth, after years of being in a socio-economic quagmire yet extravagantly endowed with natural resources and extraordinary human capital.

This study seeks to examine how best to unlock this untapped and embedded value for the emancipation of Zimbabwe's people by looking at how other countries have extricated themselves from similar situations by the use of foreign direct investment.

Pursuant to this cause, the author identified India as a case study from which Zimbabwe can learn and thus seeks to identify and measure the determinants of foreign direct investment and understand the policy framework underlying these determinants. Gross domestic product, trade, the exchange rate, inflation, foreign reserves and the foreign direct investment restrictiveness index were employed as variables in the research using annual data over a 27 year period from 1990 to 2016. This period was deliberately chosen to capture the impact of the liberalisation and reform efforts which set India on a growth path and today is the biggest recipient of greenfield foreign direct investment.

The autoregressive distributed lag cointegration framework was employed as an estimation technique to examine the long-run relationship between foreign direct investment and the chosen explanatory variables. The findings reveal that the exchange rate and the foreign direct investment restrictiveness index are the key determinants of FDI in India with a negative relationship, thus a stronger Indian rupee and better restrictiveness index rating lead to more foreign direct investment inflows.

Based on the results, placed in the context of India's foreign direct investment policy framework, the study makes bespoke and befitting recommendations to the Zimbabwean authorities on how to use the import and the tenets of the foreign direct investment restrictiveness index as a basis for devising far reaching reforms needed to attract foreign direct investment for the sustainable development of Zimbabwe.

TABLE OF CONTENTS

ABSTRACT ii

TABLE OF CONTENTS iii

LIST OF ACRONYMS v

ACKNOWLEDGEMENT vi

1 INTRODUCTION 1

 1.1 Preamble.....1

 1.2 Research Area..... 1

 1.3 Problem Statement 6

 1.4 Research purpose and significance; Research objectives and Research Questions 8

 1.5 Structure of the study 100

2 LITERATURE REVIEW 111

3 RESEARCH METHODOLOGY 366

 3.2 Research Approach and Strategy 366

 3.3 Data Collection, Frequency and Choice of Data 37

 3.4 Data Analysis Methods 38

 3.5 Research Reliability and Validity..... 466

 3.6 Limitations 467

4 RESEARCH FINDINGS, ANALYSIS AND DISCUSSION 488

5 RESEARCH CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH 59

REFERENCES 64

APPENDICES 72

LIST OF FIGURES AND TABLES

Figures

Figure 1. Global FDI inflows. 2015 – 2016.....	2
Figure 2. Global FDI 2005 - 2016 by group of economies.....	4
Figure 3. Zimbabwe FDI trends. 2009 - 2016.....	4
Figure 4. China and India FDI trends. 2011 – 2015.....	5
Figure 5. India, determinants of FDI.....	22
Figure 6. Exchange rate unit root test.....	53

Tables

Table 1. FDI inflows, M&A's and announced greenfield projects. 2015 - 2016.....	3
Table 2. FDI inflows as a percentage of GDP.....	23
Table 3. ZIA approvals.....	29
Table 4. FDI, global analysis.....	32
Table 5. Variables.....	41
Table 6. Descriptive Statistics.....	49
Table 7. Correlation Matrix.....	51
Table 8. Unit root tests.....	52
Table 9. Cointegration test.....	54
Table 10. Long run estimates.....	54
Table 11. Short run estimates.....	55
Table 12. Regression output summary.....	56
Table 13. Granger causality test.....	58

LIST OF ACRONYMS

EXIM	Export Import Bank
IMF	International monetary fund
MNE	Multi national enterprise
OECD	Organization for Economic Cooperation and Development
RBI	Reserve bank of India
SSA	Sub Saharan Africa
UNCTAD	United nations conference on trade and development
WTO	World trade organisation
ZIA	Zimbabwe investment authority

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My family, friends and fellow colleagues, you are my backstop, this wouldn't have been possible without your critique, encouragement and checking up on me.

To my Lord God, thank you for illuminating my path and ordering my steps, thy rod and thy staff in love will get me there.

CHAPTER ONE

INTRODUCTION

1.1 Preamble

‘Biting the Bullet’

Zimbabwe has fallen far behind other countries in development. The government needs to swallow its pride and literally ‘bite the bullet’ by reviewing some controversial economic policies to attract foreign investment. There is need for reforms to bring Zimbabwe back to the table of nations. We have to see how we can create an investment environment which will attract the flow of capital. These are the tasks we face and we have to look at even legislation and our social systems need to be reformed in order to catch up with current global trends. So we are looking at the reform measures that China has gone through to help us move forward. You cannot say there are areas of our economy which we are happy with, infrastructure we are behind by 15 – 16 years, agriculture development the same, manufacturing; in fact, capacity utilisation in some areas of our industry is down to 20%, so again, we have to retool by acquiring new machinery, technology and machinery so that we are competitive. Emmerson Mnangagwa (2016).

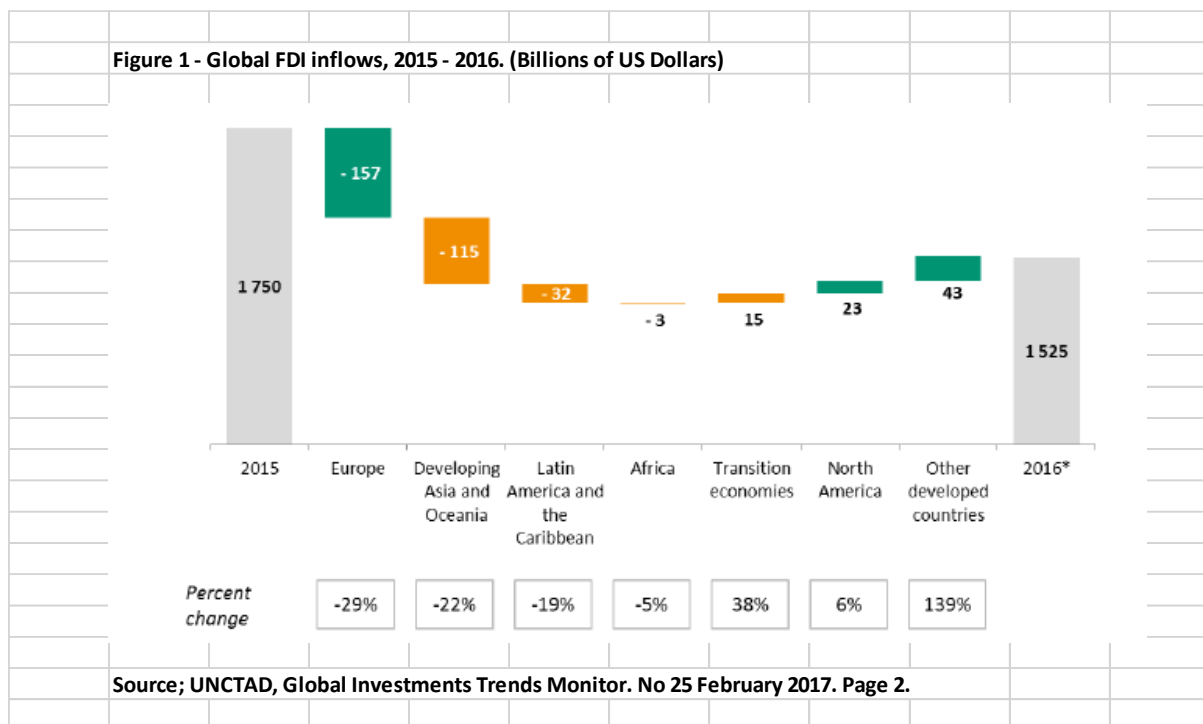
This quote by the then Vice President of Zimbabwe Emmerson Mnangagwa on his Facebook page is the epitome of this thesis, for it captures the current situation of Zimbabwe, identifies what needs to be done, by who and provides a case study model to learn from. However in order to devise reform measures, India instead of China is going to be used as the case study, given that India, has since displaced China from the number one spot as the biggest recipient of greenfield foreign direct investment (FDI) as per FDI Intelligence Report (2016).

1.2 Research Area

This research focuses broadly on the area of investment promotion and more specifically on FDI, structured as a case study, which will provide insights into the determinants and more importantly the policy framework which has resulted in India attaining the pole position. From this analysis, relevant and applicable investment promotion recommendations for the Zimbabwean government and other key stakeholders will be devised in order to support the country becoming sustainably productive and thus rise from its financial quagmire.

1.2.1 FDI Global Market

According to the February 2017 Global Investment Trend Monitor Report, a precursor to the forthcoming 2017 United Nations Conference on Trade and Development (UNCTAD) World Investment Report, global FDI flows fell of approximately US\$1.52 trillion, were 13% lower in 2016 compared to 2015 as shown in Figure 1, as global economic growth remained weak and world trade volumes posted anemic gains. This decline was not equally shared across regions, reflecting the heterogeneous impact of the current economic environment on countries worldwide.



The Global Investment Trend Monitor Report (2017) details that equity investments at the global level were boosted by a 13% increase in the value of cross-border mergers and acquisitions (M&A's), which rose to their highest level since 2007, of US\$831 billion. The

value of greenfield projects, which are investments which involve the construction of new facilities, reached an estimated US\$810 billion – a 5% rise from the previous year as shown in Table 1. At the regional level, falling flows to Europe (-29%), developing Asia and Oceania (-22%), Latin America and the Caribbean (-19%) and Africa (-5%) reduced the global total as shown in Figure 1. Despite these falls, FDI flows rebounded among transition economies (38%) and more than doubled in other developed economies like the United Kingdom where a surge in M&A mega deals occurred, which boosted flows from US\$33 billion to US\$179 billion.

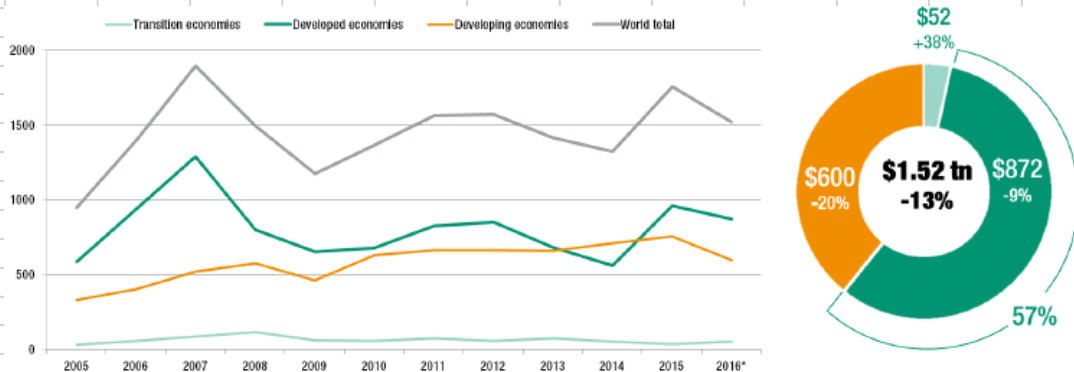
Table 1 - FDI inflows, M&As and announced greenfield projects. 2015 - 2016. (Billions of US Dollars).

Region	FDI inflows			Cross-border M&As			Announced greenfield project values		
	2015	2016 ^a	Growth rate (%)	2015	2016	Growth rate (%)	2015	2016 ^a	Growth rate (%)
World	1 750	1 525	-13	735	831	13	769	810	5
Developed economies	963	872	-9	642	779	21	276	243	-12
European Union	475	389	-18	288	359	34	181	139	-14
North America	391	414	6	318	365	15	85	68	-19
Developing economies	749	600	-20	83	47	-44	455	540	19
Africa	54	51	-5	20	10	-53	68	103	52
Latin America and the Caribbean	166	135	-19	11	3	-71	73	75	3
Developing Asia	527	413	-22	50	34	-32	314	361	15
Transition economies	38	52	38	10	5	-52	38	28	-26

Source; UNCTAD, Global Investments Trends Monitor. No 25 February 2017. Page 4.

Developed countries received approximately 57% of the FDI and developing countries 39% with the balance going to transition economies as shown in Figure 2. Asian countries attracted the largest proportion of FDI to the tune of US \$413 billion; with countries in Africa, lagging with only USD 51 billion in total, a 5% dip from the prior year as shown in Table 1.

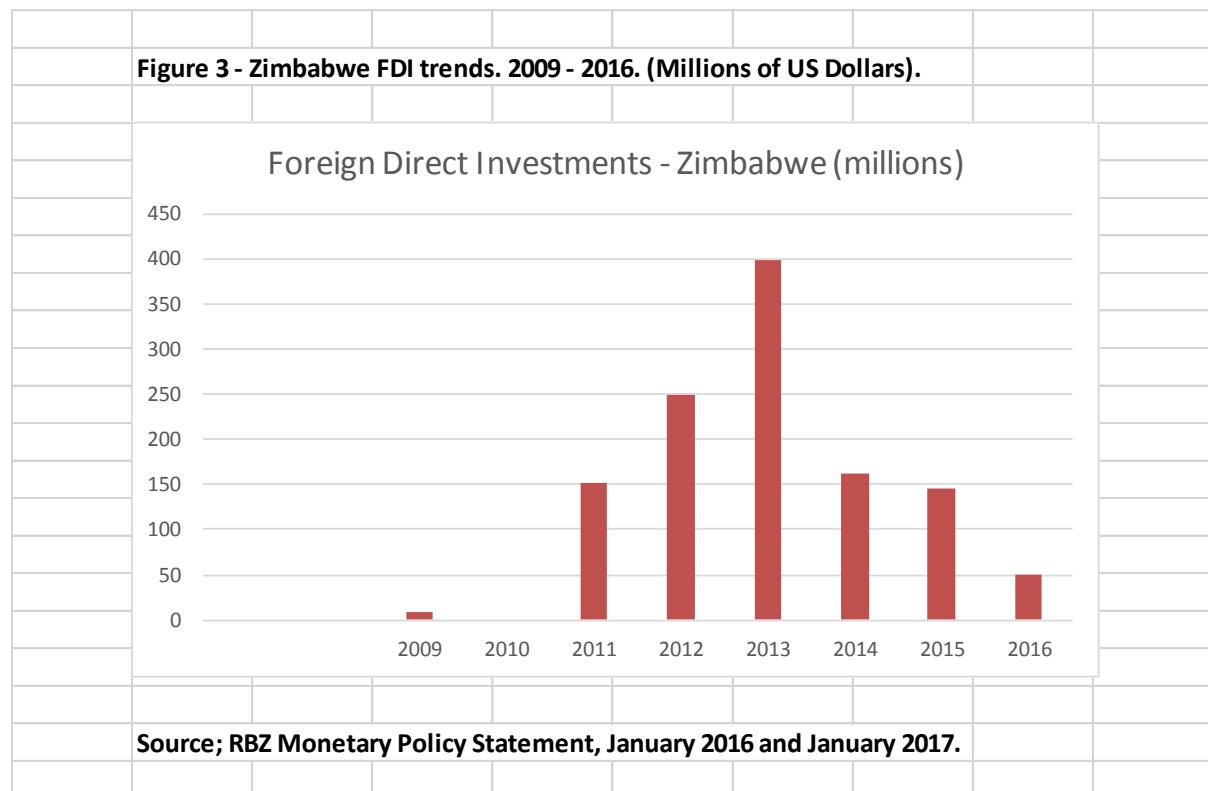
Figure 2 - Global FDI 2005 - 2016 by group of economies



Source; UNCTAD, Global Investments Trends Monitor. No 25 February 2017. Page 1.

According to the 2016 UNCTAD World Investment Report FDI currently accounts for over 40% of the development finance necessary to transition and develop economies. Such a source of development finance is key in the attainment of the sacrosanct 2030 global agenda for Sustainable Development Goals. The source of FDI is finite and as is evident from the analysis of the trends in FDI in 2016, is sensitive to the fragility of the global economy hence the need to understand the push and pull factors which play center stage as to which host country receives what share of the FDI ‘cake’.

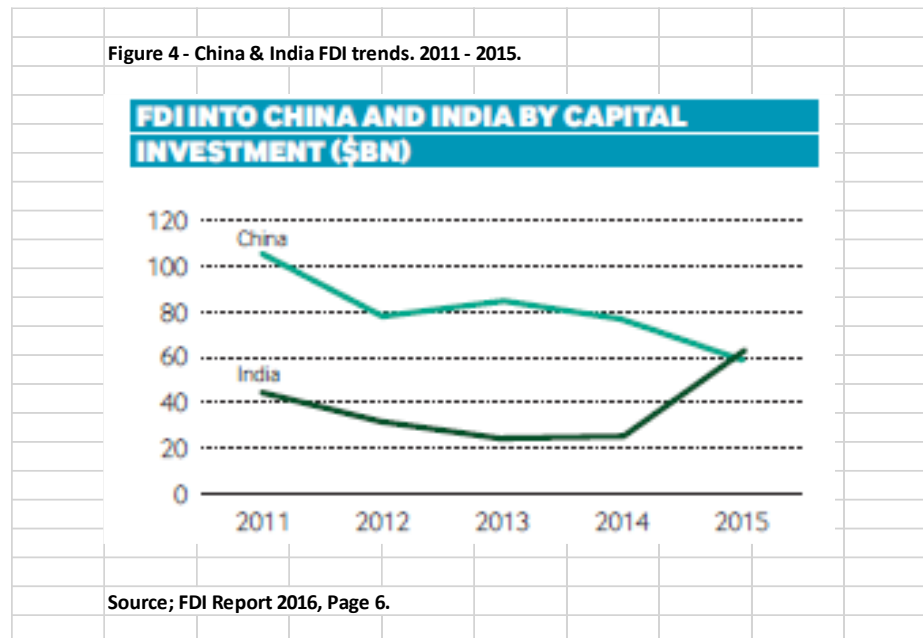
According to the Reserve Bank of Zimbabwe (RBZ) 2017 Monetary Policy report, Zimbabwe, despite investors committing to multiple billion dollar projects over the past five years, received only a paltry US\$50.6 million in 2016 in FDI, down 65% from the prior year as shown Figure 3. The low flows despite the commitments of investors, reveals the appetite investors have for the country but are not yet willing to actually invest until certain fundamental inhibitors are addressed.



1.2.2 Why India?

In a bid to gain insight into the FDI market space India has been selected as a case study whereby an analysis of its FDI trends, determinants, and policy framework, will be undertaken, with the ultimate objective being to provide policy recommendations to stakeholders in

Zimbabwe. India was the biggest recipient of FDI for 2015 after overtaking China which led for about a decade as shown in Figure 4. Historically the number one spot belonged to the United States of America (USA) but it was surpassed by China in 2004.



According to the FDI Intelligence Report 2016, Narendra Modi, India’s Prime Minister, stated amid 60,000 people in November 2015. “FDI into India has increased by 40%, thus displaying the increasing international confidence in India.” Essentially this study seeks to examine the narrative behind this ‘confidence’. India’s rise to the top spot has been characterised by tough decisions, ‘biting the bullet’ as it were, in drafting FDI reforms, tax reforms, loosening permit requirements, resolving political disputes, repealing archaic labour laws, expediting land ownership transfers and investing in infrastructure. Subsequently, FDI inflows into India more than doubled from US \$24billion in 2013 to US \$63billion in 2015, this against a backdrop of just US \$130million in 1991, incidentally an amount similar to what Zimbabwe received in 2015. The gates have been opened and India’s phenomenal rise in the global FDI rankings is mainly due to dynamic government - led economic and labour law reforms which have resulted in improved ‘ease of doing business rankings’ and has given foreign investor - confidence in India as a high growth and sustainable investment opportunity.

According to the FDI Intelligence Report (2016), India experienced an 8% increase in FDI funded projects to 697 in 2015. For the very first time, India also became the world’s leading destination for greenfield investment making the country a global technology, industrial and manufacturing hub. The reforms have aroused global attention as they encouraged investors to

participate in greenfield projects and even participate in state led privatisation programs of key sectors such as the railways, defense, manufacturing, banking and insurance, as well as the liberalisation of the health and medical services. These shows that reforms have led to huge increases in job creation from an estimated 116,000 new jobs in 2013 to 225,000 in 2015 – the highest job creation number in the world (FDI Intelligence report, 2016). The reforms have also resulted in the acquisition of technological and managerial skills, it has supplemented domestic savings, boosted foreign currency reserves, developed entrepreneurship and ultimately economic growth. It is prudent to say that India’s rise in the global FDI inward rankings will not stagnate in the near future. Increasing global investor confidence due to the gradual redressal of key hindrance factors will see a further rise in incoming FDI capital over the next five years. As further evidence that India’s policies are working and have instilled confidence in investors, the A.T. Kearney FDI Confidence Index (2017) report shows that India was ranked 8th for 2017, up from 9th in 2016 and 11th in 2015.

The Minister of Finance for India, Palaniappan Chidambaram, stated “FDI worked wonders in China and can do so in India” (Indian Express, November 11, 2005), therefore in a nutshell, if India realised the importance and impact of FDI from China then by the same token if FDI has worked wonders in India it certainly can do the same in Zimbabwe. Essentially India has reached a ‘pay-off stage’ where the benefits of the policy framework reforms are becoming visible and incremental. It is these reforms which led to ‘wonders’ which this study seeks to investigate and draw lessons from.

1.3 Problem Statement

German Chancellor Angela Merkel at the conclusion of the G20 summit, on the 5th of September 2016 made a profound observation; "What is urgently needed is that there is more direct investment in Africa. Currently there is 10 times as much direct investment in the European Union as in Africa." These facts indicate that the problem of low FDI inflows is not only unique to Zimbabwe but widespread across the continent of Africa. However, as echoed by the Vice President of the country, Zimbabwe seems to be in a more precarious position than many other countries on the continent and in dire need of investments.

A shortage of development finance remains one of the biggest challenges of developing countries, especially in Africa; the very funds which are needed to make direct investments in infrastructure, project finance transactions, entrepreneurship seed capital, green and

brownfields investments necessary for economies to grow and develop sustainably. The first port of call naturally would be locally available domestic funds but banking penetration and financial markets are generally weak and underdeveloped in Africa and in Zimbabwe in particular, which compromises development finance.

According to Ocran (2016) efficient markets and banking penetration is important in mobilizing resources, resource allocation, maturity transformation and risk management which are the key ingredients of the financial process necessary for development finance. Whilst efforts should be made to improve domestic resource mobilization and financial inclusion, alternatives should also be considered and FDI is a viable option which has been growing over the years and has become pivotal in underpinning growth and development of emerging and developed countries. As shown by Shashank, Phani and Sambasiva (2012) FDI has played a huge role in India, attaining sustainable development, economic growth and the deepening and development of entrepreneurs who are a driving force in production and job creation. However, Zimbabwe seems to be lagging behind in terms of attracting this vital source of investment.

1.3.1 Research Problem, Nature of Study's Contribution and Knowledge Gaps

The principal research problem of this study can be expressed as follows:

What are the determinants of FDI for India and which key policies have led to the growth of FDI in India?

By identifying the determinants and policies behind FDI growth in India, the study will draw lessons which will contribute towards finding a solution to Zimbabwe's falling FDI trend. The lessons will contribute to the body of knowledge by proposing appropriate policy recommendations, legal framework reviews and Investment promotion handbooks for Zimbabwe so as to attract the vital FDI.

The study's nature follows a similar study by Bajpai and Sachs (1997) which drew lessons from East Asian models to provide recommendations for economic reforms in India. Ngugi and Nyang'oro (2005) structured their study in a similar fashion by drawing lessons from developed countries and formulated implications and recommendations on FDI policy for Kenya. The study was instituted on the backdrop of Kenya losing its position as a destination of choice for FDI to its neighboring countries, a precarious situation Zimbabwe finds itself in. The research problem for the study was: how can Kenya regain its position? The study covered

countries from Asia, Eastern Europe, Latin America, Sub Saharan Africa as a region and included neighboring countries like Uganda.

Two major knowledge gaps are bridged by this study, the first being very few recent studies exist which explain the determinants of FDI in India and even fewer intertwine determinants and a policy review. The most recent was done by Vyas (2015) which was more of a trend analysis but didn't examine determinants, most which covered determinants examined up to 2013, which leaves a gap in terms of recent studies on determinants. Another outdated study was done by Chaitanya (2005) on the policy framework only but Lokesha & Leelavathy (2012) made an attempt to combine determinants and policy framework however the study is now outdated as it fails to capture recent developments.

The second gap the study bridges is the absence of recent studies on Zimbabwe on the subject of FDI and of the few studies done, none take the approach of a case study of a market leader for the purposes of drawing lessons. Bayai and Nyangara (2013) did a study on Zimbabwe determinants of investments which covered both FDI and domestic investments. Muzurura J (2013), studied determinants of FDI in Zimbabwe up to 2011 and Gwenhamo (2009) narrowed their study of FDI in Zimbabwe by only examining the importance of property rights in attracting FDI up to the period 2005.

1.4 Research purpose and significance; Research objectives and Research Questions

The purpose of the study is summarized in the following research objectives:

- **Research Objective;** to study the trend of inflow of FDI in India as a case study over the past 26 years and assess the determinants and policy framework which gave impetus to the phenomenal FDI inflows.

Research Question; what are the determinants and key policies behind the phenomenal growth in FDI in India over the period from 1990 – 2016?

Scope; by studying the determinants behind the growth in FDI, understanding of the impact and significance of various variables on FDI inflows into the country will be gained.

- **Research Objective;** to devise policy recommendations for Zimbabwean government and stakeholders from the study of determinants and policy framework of India in order to reverse the FDI inflow downward trend and set it on a growth trajectory.

Research Question; which are the key policy recommendations relevant to Zimbabwe which will remove inhibitors of FDI and pull FDI necessary for sustainable economic growth.

Scope; from the case study, understanding of appropriate policies from India to identify, remove inhibitors and attract FDI will be gained.

1.4.1 Justification of the study

Zimbabwe has substantial mineral resources Bartholomew (2003), yet has massive unemployment of over 95% as indicated by Worstall (2017) and high levels of poverty. It was once dubbed the ‘bread basket of Africa’ but has since been reduced to a basket case which constantly has to rely on imports, aid and donors to feed its own. Ndlovu (2013) indicates that the International Organisation on Migration (IOM) estimates up to 4 million Zimbabweans have since left the country in order to look for greener pastures, which is ironic for a mineral resource rich country. Given the low levels of financial development amidst high need of investments in infrastructure and private sector FDI is needed to bridge the gap so as to trigger economic development. It becomes imperative to seek lessons from countries which were once in a similar situation and have managed successfully to attract FDI and used it to achieve high economic growth rates. India, because of hard decisions has emerged from the back burner to become not only the highest recipient of FDI inflows but also one of the fastest growing economies in the world. It is a path, every Zimbabwean would be eager for their country to emulate.

India has grown from the peripheries and brink of poverty to become the best investment destination and now has one of the fastest growing economies. To understand this trend and determine the key success factors will provide guidance to Zimbabwe and other developing countries in Africa so as to review, adopt and tailor bespoke policies which will attract foreign investments so as to set their struggling economies on a growth path. Most developing countries have underbanked and underdeveloped financial markets which compromises domestic resource mobilisation, hence FDI is an easier alternative in bridging the gap and providing capital for investments so as to set the economy on a sustainable development path.

This is the reason why this research will not be limited to determinants alone as has been done with most research papers but will seek to dig deeper and identify the key policy framework which has given impetus to the notable trends in India. The policy framework and determinants

should provide a reference point in coming up with bespoke blueprints in investment promotion. The stakeholders include government, investment promotion and trade policy makers, development finance institutions, lawmakers, the judiciary, multi-national corporations, central banks, scholars, entrepreneurs and members of the public at large.

1.5 Structure of the study

The layout of the remaining chapters is as follows;

Chapter 2 provides the detailed literature review, which has synthesised theories and foundational concepts on FDI with evaluations and appraisals of previous empirical research on FDI determinants and policy framework. The synthesis in the literature review also includes trends and opposing perspectives in the field of FDI.

Chapter 3 presents the research methodology followed in the study and the nature of the sources of data used for the analysis. Chapter 4 discusses the research findings which will formulate the basis of Chapter 5 which details conclusions and recommendations to stakeholders of the study. Chapter 6 discusses recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The comprehensive literature centres on two themes which are closely related, determinants of FDI and policy framework of FDI. Both topics are investigated in the context of India for the purposes of drawing lessons for Zimbabwe. An overview of empirical research done on Zimbabwe is included in the literature review in order to come up with contextual and relevant recommendations from the lessons learnt from India.

It is imperative to consider the benefits of FDI and also consider different schools of thought on the subject, broadly. Denisia (2010), shows that whilst most Economists believe that FDI is an important element of economic development in most countries, especially in the developing ones, the conclusion reached after several empirical studies on the relationship between FDI and economic development is that the effects of FDI are complex. From a macro perspective, the effects of FDI are often regarded as generators of employment, high productivity, competitiveness, and technology transfer. Especially for the least developed countries, FDI means higher exports, access to international markets and international currencies, being an important source of financing, substituting bank loans which is usually underdeveloped given the poor financial markets and weak domestic resource mobilisation in developing countries. There is some evidence to support the idea that FDI promote the competitiveness of local firms. Blomstrom (1994) finds positive evidence in Mexico and Indonesia.

Akhtar (2013), considered benefits of FDI in India by looking at trends over the pre and post policy framework reform periods and concluded that FDI played a multidimensional role in the growth and development of the economy. Resulting in GDP growing four-fold since the watershed 1991 reforms dispensation, other benefits included bringing non-debt foreign capital resources, technology upgradation, skill enhancement, employment, spill overs and allocative efficiency effects. Such benefits being consistent with the findings of Blomstrom (1914) and Denisia (2010). Essentially FDI was found to be a catalyst for domestic industrial development as a result of liberalization.

Caves (1996) considers that the efforts made by various countries in attracting foreign direct investments are due to the potential positive effects that this would have on economy. FDI

would increase productivity, technology transfer, managerial skills, know-how, international production networks, and access to external markets as well as reduce unemployment, the findings concur with Denisia (2010) and Akhtar (2013). Borensztein (1998) supports these ideas, considering FDI as ways of achieving technology spillovers as identified by Caves (1996), with greater contribution to the economic growth than would have national investments. The importance of technology transfer is highlighted also by Findlay (1978) who believes that FDI leads to a spillover of advanced technologies to local firms, the findings were further developed by Smarzynska (2002) who examined further technology spillovers.

On the other hand, contrarian scholars form a different school of thought against which is against FDI. These scholars postulate that FDI may crowd out local enterprises and have a negative impact on economic development. Hanson (2001) considers that positive effects are very few, and Greenwood (2002) argues that most effects would be negative. Lipsey (2002) concludes that there are positive effects, but there is not a consistent relationship between FDI stock and economic growth. The potential positive or negative effects on the economy may also depend on the nature of the sector in which investment takes place, according to Hirschman (1958) that stated the positive effects of agriculture and mining are limited.

Whilst I agree that FDI is not all rosy and doesn't not always have positive impacts especially in terms of competition where small local industries may not be able to compete against MNE's with foreign funded balance sheets I disagree with Greenwood that most effects are negative. I think Hirschman gives a more balanced view in that it should be viewed on a sector by sector approach, an approach which has since been taken by India when it comes to extent of control by MNE's. However I disagree with Hirschman on the mining sector especially in the context of Zimbabwe given that mining is a very capital intensive business and local funds are not able to finance it, the only viable option is FDI.

Consider that as per RBZ MPS (2017) funds in the banking system are just US\$ 6,5 billion, a figure too small to exploit the mineral resource in Zimbabwe. It is my argument that FDI is important especially where local banking system is compromised, however as domestic resource mobilisation develops and local financial markets are deepened and broadened, the role of FDI maybe of less importance. This could possibly explain the gradual drop of FDI in China because the local market is now fairly developed and can now finance its development organically. Therefore for Zimbabwe and other developing countries FDI is crucial as

supported by Awudi (2002) who considered the impact of FDI in the mineral rich Ghana. He concluded that Ghana which has a variety of mineral resources and mining dates back well into the pre-colonial times only started booming after the inception of the World Bank/IMF-led Mineral Sector Refund. This ushered in attractive new mining sector policies which created foreign investor appetite which resulted in FDI of over US\$2 billion into the mining sector. This has resulted in the mining sector contributing 41% of the country's exports and is the leading foreign exchange earner. Gold, the most important mineral, now earns over US\$600 million and making up almost 90% of the mineral output, has replaced cocoa as the leading foreign exchange earner. Further, Ghana is now the second largest producer of gold after South Africa in Africa. Linked to the findings of Awudi (2002) are the findings of Asiedu (2006), using a panel data for 22 countries in Sub-Saharan Africa (SSA) over the period 1984–2000, found that countries that are endowed with natural resources or have large markets attract more FDI, so it is imperative that such endowed countries devise policies which attract FDI so as to unlock their embedded value.

The findings of Awudi (2002) are consistent with the findings of Lokesha (2012) on India, who found that FDI has been instrumental in the economic growth and development of developed countries. To the extent that almost every developed country has had to supplement its meagre savings at the infancy stage of its development by the use of FDI. This realisation has prompted India and other developing countries to reform their economic policies to attract FDI. In light of the evidence which points to the benefits of FDI for a country, especially developing countries, the question then arises as to what attracts or deters FDI and how can a country fashion its policy framework to improve FDI inflows towards sustainable development, becomes the subject of the study.

2.2 Key concepts, seminal studies and other key research

Hymer (1960), in his seminal and pioneering PhD dissertation was the first economist to address the question of why firms carry out activities outside their home countries rather than in their domestic markets. In his work he addressed the questions; Why multinational enterprises (MNE) and why FDI. These questions formed the foundation of International Business as an academic discipline in its own right. This conceptual framework arguably established Hymer as the founder of the modern theory of the MNE and FDI.

Hymer's (1960) work included distinguishing between FDI and financial investments, which were conflated before and considered to be all capital movements, simply influenced by interest rate differentials. He identified control of production, by foreign operations as the key distinguishing factor between the two and hence the determinants were beyond interest rates differentials which tend to influence portfolio investments more as opposed to FDI. He concludes by highlighting that market imperfections are needed for FDI to succeed as they create opportunities and advantages. By taking advantage of such imperfections MNE's reduce competition but he also demonstrated that FDI can only grow if the benefits of exploiting firm-specific advantages outweigh the relative costs of the operations abroad.

Hymer's (1996) work was adopted and extended into one of the most seminal paradigms on FDI by Dunning (1973) in what has come to be known as the OLI (opportunities, location and internalization) framework of FDI. These concepts explain the activities of MNE's as follows:

- Opportunities: - for an MNE to invest abroad, they must have advantages which no other firm possesses in order to make investments; these can be classified as push factors. For example, the MNE may have an efficient technology, excess capital or access to capital markets or superior skills in a particular industry.
- Location: - the host country should offer locational advantages as an incentive to attract investment from MNE's; these are also known as pull factors.
- Internalisation: - this refers to the MNE's ability to internalise operations to the extent of exercising control over the operations. Control is therefore important in the exploitation of the advantages the MNE has in tapping into the opportunities offered by a location. Internalisation can thus also be classified as a pull factor and would also include laws surrounding proportions of foreign ownership and dividend remittance policies.

As such, a good policy on investment promotion should offer the best internalisation and location incentives so as to tap into the advantages (technology, skills, capital etc.) which investors have which need to find a home potentially anywhere in the world. Failure to devise appropriate policy framework around location and internalisation by a government, means the advantages will be deployed to other host countries.

Dunning (1973) performed a statistical study of determinants and identified three main categories of determinants: market factors, cost factors and the investment climate. The market

factors include the market size and economic growth, the cost factors incorporate measures such as labour, energy, set-up costs as well as inflation. The investment climate refers to macroeconomic factors like state debt, sovereign credit rating, balance of payments and trade openness. In the context of the OLI theory the three main determinants would mainly be opportunities and location factors. Dunning (1973) goes further to emphasise that it is the location advantages which form the core determinants of FDI in developing countries. The work of Dunning (1973) forms the core theory which underlines the research problem. Over the years, the core theory has been pursued further by other scholars who have built upon the foundation given by Dunning (1973) so as to contribute to the body of knowledge in this field.

Dunning (2000) updated his earlier thinking on the subject by highlighting a key concept of categorisation of FDI, namely;

- Market seeking – When an MNE enters a foreign market so as to satisfy its clientele base. This type is also known as demand oriented, as this type of FDI could be driven by foreign demand of products perhaps previously serviced via exports. Asiedu (2006).
- Resource seeking – When an MNE enters a foreign market so as to gain access to natural resources. These include mineral rights, farming land or human resource capital. This is related to Location in the context of the OLI framework. Asiedu (2006).
- Efficiency seeking – When an MNE enters a foreign market so as to promote efficacy by specialisation within product portfolio. This specialisation may be related to a resource or market seeking objective.
- Strategic asset seeking – When an MNE enters a foreign market with the objective of seeking to protect an existing ownership specific advantage or in order to weaken a competitor. This factor is related to Ownership in the context of OLI framework by the same author in his earlier seminal work.

Related to the seminal work of FDI classification by Dunning, is work done by Asiedu (2006) whose work is a seminal paper on FDI in SSA. In agreement with the resource and market seeking categorisation, using a panel data for 22 countries in SSA, over the period 1984–2000, found that countries that are endowed with natural resources or have large markets attract more FDI.

Another key concept in the FDI framework are the push and pull factors which affect capital flows. Pull factors are essentially domestic factors which are unique to a FDI host country,

such factors include tax policies, rule of law, property rights, trade openness, fiscal and investment policy framework. In the context of the OLI framework, these are Location factors which attract FDI. Whereas push factors are external factors which have an impact on the source of FDI flows, these include interest rates, economic growth, geopolitical issues and economic developments in source countries like industrialised and developed nations which drive flows to host countries (De Vita & Kyaw, 2008). Given that push factors are external, there is very little that a country can do about push factors except in coming up with strategies on how to mitigate global shocks which may affect FDI flows like as Fratzscher (2011) shows how the impact of shocks highly depends on the quality of domestic institutions, country risk and the strength of domestic macroeconomic fundamentals, however as highlighted by Echandi (2015) policy makers are able to influence pull factors by using Investment policies which cover macroeconomic policies, monetary policies, tax policies, labour laws and costs, energy costs, infrastructure and devising legal and policy instruments which attract FDI. Cerutti (2015) also looks at global capital flows and concluded that global push factors of advanced economies mostly explain FDI dynamics as they are the major source of global capital, a finding similar to (De Vita & Kyaw, 2008). However the dynamics differ with each jurisdiction depending on host countries and market structure characteristics with countries which rely on global capital being more sensitive to push factors and global shocks. Gossel & Biekpe (2015) considered portfolio and FDI flow dynamics of South Africa in the context of push and pull factors and concluded that push factors affect FDI in the short term but pull factors drive FDI in the long run with major pull factors being

Contributions to the body of knowledge also include; Andersen (2004) in a bid to establish a relationship between FDI and employment in Organization for Economic Cooperation and Development (OECD) countries, noted a negative relationship between labour costs and inflows and that this relationship is reinforced by a depreciating local currency. The findings give credence to the OLI principle of FDI by Dunning (1973) with regards to location, in the sense that labour costs are a pull factor and thus a key determinant. There has been a trend of global companies moving their manufacturing to Asia, a case in point being Apple which makes almost all of its devices in China because of a relatively low labour cost environment which gives a locational advantage. According to Crabtree (2015), Foxconn, a Taiwanese technology company, is planning to build 12 factories in India which will employ about 1 million workers by 2020 because of rising wages and labour disputes in China and also wants

to position itself in supplying companies with plans to tap into India's domestic market. This adds credence to the OLI principle on the importance of locational costs in being a pull factor of FDI. The exchange rate movement would fall under the investment climate and investors would generally favour a stable environment which minimizes exchange losses.

Meyer (2003) analysed the impact of FDI on host economies and the policy implications arising from the impact. The study which focused on Asian and Latin American emerging economies observed that economic integration of emerging markets into the global economies, investment and trade increases FDI inflows. Hence the policy implication leans towards global integration and trade openness which effectively improves the investment climate of a host nation. The study concurs with Dunning who identified locational advantages as more important in developing economies which implies that determinants and policies differ with stage of development as the study identified that initially investors are attracted by locational advantages like resources but over time as economies develop investors are engaged and drawn by a range of activities which serve both domestic and export markets. This has implications when devising policies for the creation of a conducive business environment and which attract FDI inflows, it is imperative to consider the stage of development of a country and implies being sensitive to specific sectoral needs.

Asiedu (2001) explored determinants of FDI of developing countries and juxtaposed them with determinants of FDI of Sub Saharan African (SSA) countries. She noted that infrastructure was a significant determinant and had a positive impact in attracting FDI for non - SSA countries but had no significant impact in attracting FDI in SSA countries. Openness to trade was, however, found to be significant to both test cases. She noted that Africa carries an unreasonably high level perceived risk, which she called 'an adverse regional effect' which could explain why it has struggled to attract FDI despite considerable policy reforms. The policy implications of her findings are that African countries need to open their economies more by liberalising their trade regimes, but at the same time, more work needs to be done to reduce the perceived risk. Moreover, Asiedu (2001) also noted that policies that have been successful elsewhere should not be blindly 'copied and pasted' since they may have different impacts. However, the study does have several limitations because numerous SSA countries were excluded from the panel because of the lack of information, with some explanatory factors also excluded. The study also did not consider the quality or lack thereof of the policies in place for investment promotion.

2.3 Research on determinants and policy framework – Indian context

In addition to the seminal work, concepts and frameworks to understand FDI, much academic work has been done to understand individual determinants of FDI flows into countries and different policy frameworks. This section highlights the main research done in this area, in the context of India.

Bajpai and Sachs (2006) identified the challenges India faced in raising FDI, and why it was unattractive as an investment destination at the time, despite having a massive domestic market, observing rule of law, low labour costs, and a good working democracy. They concluded that a restricted FDI regime, high import tariffs, exit barriers for firms, stringent labour laws, poor quality infrastructure, bureaucratic bottlenecks, and a very limited scale of export processing zones make India an unattractive investment location. In the context of Dunning's (1973) theoretical framework, 'exit barriers for firms' can be viewed as an example of internalisation as it captures the ability of firms to remit profits made from foreign investments which is a key policy consideration.

Malhotra, (2014), did a study which focused on the impact of FDI on the Indian economy after two decades of reforms. He identified India's market potential and liberalised policies being key pull factors of FDI into India, which is consistent with the findings of Loksha (2012). He identified FDI as a need, depending on the level of savings and investments required in a country. Therefore FDI should be seen as a bridge which closes the gap between investment and saving. He noted that such a gap exists in India and FDI plays a significant role in the development of the Indian economy, as such it is important to provide many incentives for attracting FDI, something which the Indian government has been doing gradually since 1991 through its Foreign Investment Promotion Board (FIPB). He also identified FDI as key in providing access to the superior technology that promotes efficiency and productivity of the existing production capacity and the generation of new production opportunities.

Over the twenty year review period Malhotra (2014) noted that FDI increased by more than 210 times, from Rs. 409 crore in 1991-1992 to Rs. 173947 crore in 2011-2012. Over the review period GDP growth rate was up from 5.3% to about 7.9%. He also noted that FDI had impact on the upgrade of technology especially in the telecoms sector, it also improved access to global managerial skills and practices, optimal utilization of human and natural resources, making Indian industry internationally competitive, opening up export markets, providing backward

forward linkages and access to international quality goods and services. The author also did a sectoral analysis of FDI and gave a brief policy framework history behind the growth of FDI per sector.

Mitra (2016) studied India's GDP impact on inflows of FDI and noted that economic reforms which began in 1991 have resulted in high growth of GDP which has also attracted and induced high inflows of FDI. The relationship was found to be a high positive correlation and supports earlier studies by Agrawal (2011) who observed the same positive relationship for China and India. A co-integration analysis by the Mitra showed that a two way relationship exists between GDP and FDI, where GDP is a determinant of FDI inflows as it becomes a pull factor and at the same time FDI inflows results in a higher GDP as productivity is boosted by investment in production capacity.

Shashank, Phani and Sambasiva (2012) noted that as a result of the economic policy reforms of 1991 and subsequent reforms, India has witnessed an improvement in the flow and direction of FDI into the country mainly due to the removal of restrictive and regulated practices, this concurred with the work of Bajpai (2006). The study covered a period from 1991 to 2010 with the objective of studying trends in FDI inflows, the determinants of the FDI inflows and impact thereof on the economy using secondary data. Their methodology for model building was to use a multiple regression model, where FDI was the dependent variable and they had the following independent variables: - financial position (ratio of external debt to exports), trade (exports less imports) as a percentage of GDP, exchange reserves as a percentage of GDP, research and development (R & D) as a percentage of GDP, level of economic growth, FDI growth and the exchange rate. A synthesis was also done between the pre- and post- reform era against the FDI inflow trends as a policy review analytical tool. From the results they concluded that foreign exchange reserves, trade, the exchange rate, financial position, R&D and debt to exports are the main determinants of FDI inflows to the country. The results also revealed that trade, foreign exchange reserves, and financial position exhibited a positive relationship with FDI while R&D and a weakening exchange rate exhibited a negative relationship with FDI inflows. Hence, trade, reserves, and financial position are pull factors for FDI inflows to the country and R&D and a weakening exchange rate are deterrent forces for FDI inflows into India.

Mitra (2016) studied India's factors which attract FDI and noted the liberalisation reforms strengthened the economic base of productive sectors which have ultimately made India a lucrative market for FDI. The main determinants identified as positive catalysts to FDI were observed as Gross Domestic Product (GDP) being positively correlated to FDI inflows, Inflation (measured by the Consumer Price Index) negatively correlated to FDI inflows, Trade Openness (measured by Trade to GDP ratio) positively correlated to FDI inflows, Foreign Exchange Reserve and Index of Industrial Production (IIP) both positively correlated to FDI inflows.

Lokesha and Leelavathy (2012) did a discursive paper on India's determinants of FDI for both inflows and outflows. They concluded that inflows are determined by policy framework, market size, economic stability and political factors. The key policies were identified as liberalized industrial policy, liberal trade policy, liberal foreign exchange policy, exchange rate regime which leans towards free market, intellectual property regime which respects property rights, removal of foreign equity caps and a pro- investment tax policy. The study also identified that there are similarities and dissimilarities in determining factors which explain inflows into India and other developing countries. The study found similar findings with Asiedu (2002) who also identified policy framework reforms as a key determinant of FDI inflows in developing countries. However unlike most developing countries one dissimilarity is India's huge market size, both in terms of GDP and population, which is almost the size of the continent of Africa, which is a pull factor. Market size and Gdp as identified by Mitra (2016), were also found to be significant as well as infrastructure and exchange reserves. From a cost perspective labour costs were found to be amongst the lowest in the world and is a key comparative advantage, which ties in with the findings of Dunning (1973) OLI framework, as labour cost is a location pull factor. The study by Lokesha strengthens this studies approach to consider a review of the policy framework as it was identified as a determinant. The journal, however is a discursive paper not based on empirical analysis, which drew from various literature to highlight various policies found in other studies.

Narayan, (2014), analysed FDI determinants of India and covered the period post initial reforms from 1991 to 2013. Due to collinearity of variables a step wise multiple regression was used and found that size of GDP, its growth rate are important in attracting FDI, higher forex reserves also helped and recommended for policies which improve and maintain high forex reserves as well as sustaining high GDP growth rates. The findings on GDP and forex reserves

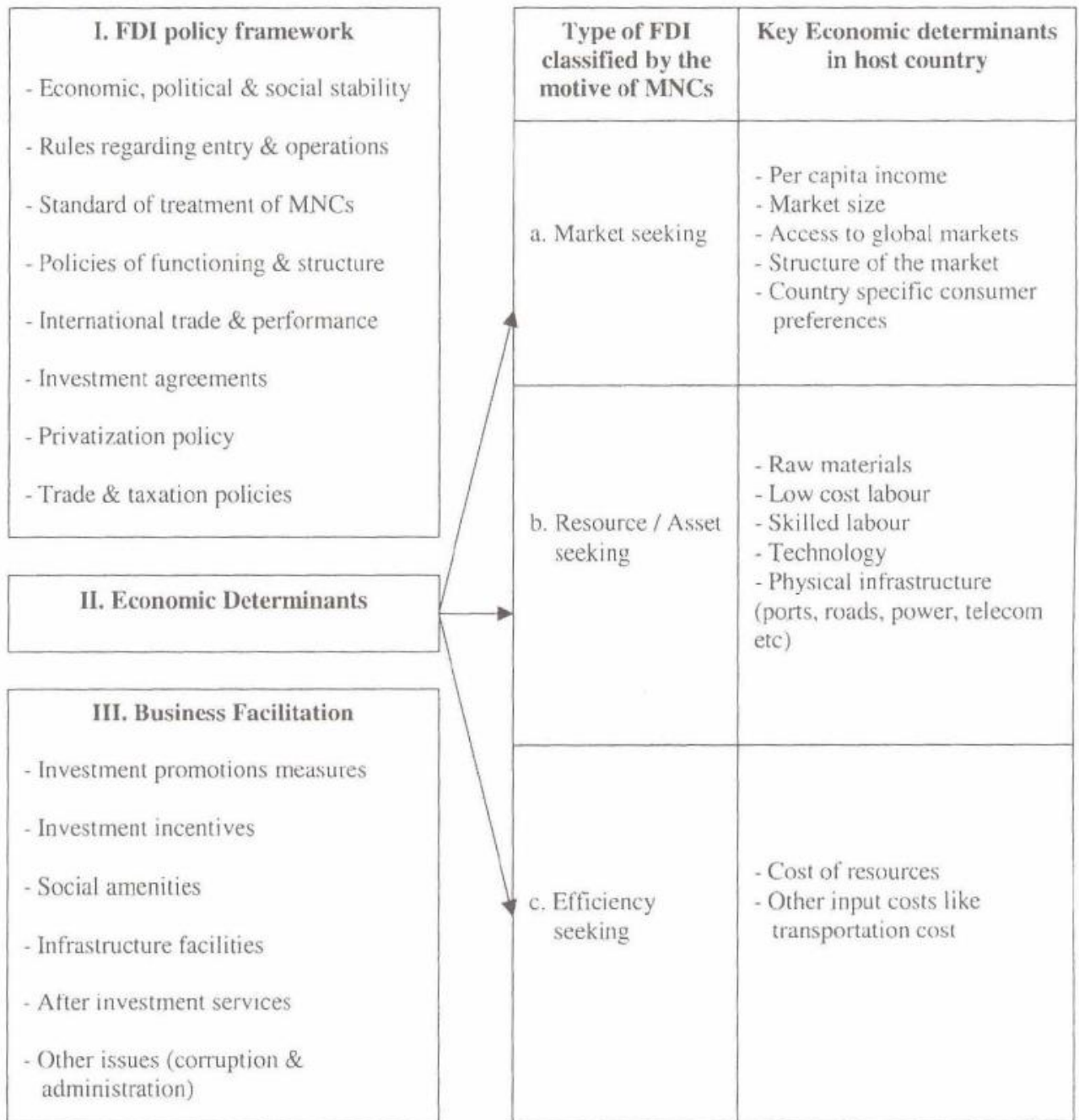
are consistent with the findings of Lokesha (2012) and Mitra (2016). However government debt was found to be negatively related to FDI. The paper however had no discussion on the policy framework of India.

Pattayat's (2016) paper highlights the determinants of FDI in India and how the determinants affect FDI, which is identified as the most important factor of economic growth. In the regression model FDI is the dependent variable and GDP, Trade Openness and the Exchange rate are the independent variables. Using time-series analysis for the period from 1980 – 2013, the Johnson co-integration test was also used to determine if a long-run relationship exists between the dependent and independent variables. The results show that GDP, Trade Openness and the Exchange rate are the cardinal determinants which influence inward FDI to India. The research however was very scant on policy framework implication and I also found the methodology limited as it only had three independent variables, more variables would have made the research more thorough and robust even though some variables would have been found insignificant.

Chaitanya (2004), did a study to assess the impact of the policy framework that had been done to attract FDI in India, to understand the determinants, analyse inflows by industry and study regulations governing FDI. The determinants were summarised as follows;

Figure 5 - India, determinants of FDI

Exhibit: 2 Host country determinants of FDI



Source – Chaitanya (2004), Foreign Direct Investment in India

However no statistical analysis of determinants was done by the study. Chaitanya (2004) gives insight of the policy framework reforms by indicating that prior to the economic liberalisation of 1991, foreigners had restrictions when it came to ownership and control of businesses in

India and foreign investors required government approval before investing in India. The reforms, dubbed The New Industrial Policy of 1991 allowed investments via the automatic route which did not require government or Reserve Bank of India (RBI) approval up to 57% in more than 37 industrial sectors. The automatic route has since been subsequently expanded on a sector by sector basis with four categories of ceiling from up to 50%, 51%, 75% and some even up to 100%.

Chaitanya (2004) then did a comparative analysis with China and observed that whilst there had been significant growth in India relative to the region China was still attracting the lions share as expressed against GDP. He notes that by 1999 India had attracted FDI to the tune of 3, 6% of GDP yet China had attracted a staggering 31%. India was also lagging behind in terms of the region of Asia which was sitting on 30%. An analysis was also done of inflows by country of origin which showed Mauritius and USA to be the material source of FDI, however Mauritius being a tax-haven was noted as a conduit of funds from nominees in other countries. However the implication was that tax and double taxation agreements are key in FDI dynamics.

Table 2; FDI inflow as percentage of GDP

FDI Inflow as percentage of GDP

Host Economies	1980	1985	1990	1995	1999
Developing Economies	10.2	14.1	13.4	15.6	28.0
Asia	14.2	17.4	15.4	17.3	30.2
China	3.1	3.4	7.0	19.6	30.9
India	0.7	0.5	0.6	1.7	3.6

Source - Chaitanya (2004), Foreign Direct Investment in India

Chaitanya (2004) went further and did an industry sectoral analysis so as to come up with sector specific recommendations in FDI policy. The study concluded that given the regional share analysis and comparison to China, India was operating below its potential and recommended that a sectoral approach is required in order to stimulate FDI and the review of limits on foreign equity holdings were key in attracting more FDI. It was also recommended that there should be deliberate marketing efforts to attract FDI in the form of a publicity campaign. One of the biggest gaps identified when compared to China was infrastructure and it was recommended to remove the equity ceilings specifically in infrastructure.

Azam and Lukman (2007) conducted a panel study including India, Indonesia and Pakistan for the period from 1971 to 2001 to estimate the determinants of FDI inflows. They used a log linear regression model and least squares method for their analysis. Empirical results showed that market size, external debt, domestic investment, trade openness, and physical infrastructure were the significant economic determinants of FDI. Further, the study found that the economic determinants of India's FDI matched those of Pakistan excluding (trade openness and government consumption) while the results of Indonesia did not closely mirror those of Pakistan and India. To enhance FDI flows into these three countries, the study recommended authorities ensure economic and political stability, the provision of infrastructure, peace and security, law and order maintenance, encourage domestic investment, curtail external debt, and equal importance should also be given to appropriate monetary policy. The study highlights similarities within jurisdictions which indicates that lessons can be drawn from different jurisdictions but the differences highlighted above indicate that caution must be exercised against a copy and paste approach in giving recommendations. However the study is silent on policies behind the FDI inflows.

The Division of International Trade and Finance of the Department of Economic and Policy Research, of the Reserve Bank of India (RBI) carried out a study to investigate the sluggish performance of FDI post the 2008 crisis compared to the region and other emerging market economies (EME's) which seemed to have recovered quite well. The report concluded that India fell short of its peers and potential due to policy uncertainty as measured by the Kauffman's governance effectiveness index. The index factors in six variables; voice and accountability, political stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption.

The study by RBI took the approach of a policy review and observed that although India's FDI policy vis-à-vis other major EME's had been relatively conservative to begin with, it progressively caught up with the more liberalised policy stance of other EME's from the early 1990s onwards, inter alia in terms of wider access to different sectors of the economy, ease of starting a business, repatriation of dividends and profits, and relaxations regarding norms for owning equity. This progressive liberalisation, coupled with considerable improvement in terms of macroeconomic fundamentals, reflected in the growing size of FDI flows to the country that increased nearly 5 fold during first decade of the present millennium. The study also undertook a panel analysis, examining FDI trends in 10 select EMEs over a 7 year period,

and noted that apart from macro fundamentals, institutional factors such as time taken to meet various procedural requirements have a significant impact on FDI inflows. Therefore the policy regime was noted as one of the key factors driving investment flows to a country.

The study by RBI reviewed policy framework of India as juxtaposed with policy frameworks of other countries in the region and EME's. It was noted that before the 1991 liberalisation policies India followed a very cautious and selective approach FDI policy which was inspired by import substitution and self-reliance. The policy was out to protect and nurture domestic industries. The regulatory framework was consolidated through the enactment of Foreign Exchange Regulation Act (FERA), 1973 wherein foreign equity holding in a joint venture was allowed only up to 40 per cent. Subsequently, various exemptions were extended to foreign companies engaged in export oriented businesses and high technology and high priority areas including allowing equity holdings of over 40 per cent. Moreover, drawing from successes of other country's experiences in Asia, the government not only established special economic zones (SEZs) but also designed liberal policy and provided incentives for promoting FDI in these zones with a view to promote exports. As India continued to be highly protective, these measures did not add substantially to export competitiveness. Recognising these limitations, the RBI report shows that partial liberalisation in the trade and investment policy was introduced in the 1980s with the objective of enhancing export competitiveness, modernisation and marketing of exports through Trans-national Corporations (TNCs).

A major shift occurred when India embarked upon economic liberalisation and reforms programmes in 1991 aiming to raise its growth potential and integration with the world economy. Industrial policy reforms gradually removed restrictions on investment projects and business expansion on the one hand and allowed increased access to foreign technology and funding on the other. As detailed in the RBI report a series of measures that were directed towards liberalising foreign investment included:

- (i) the introduction of dual route of approval of FDI – RBI's automatic route and government's approval (SIA/FIPB) route,
- (ii) the automatic permission for technology agreements in high priority industries and the removal of restrictions of FDI in low technology areas as well as the liberalisation of technology imports,

- (iii) the permission to Non-Resident Indians (NRIs) and Overseas Corporate Bodies (OCBs) to invest up to 100 per cent in high priority sectors,
- (iv) a hike in the foreign equity participation limits to 51 per cent for existing companies and liberalisation of the use of foreign brands names and
- (v) the signing of the Convention of Multilateral Investment Guarantee Agency (MIGA) for protection of foreign investments.

The RBI reports also shows that these efforts were also boosted by the enactment of Foreign Exchange Management Act (FEMA), 1999 [that replaced the Foreign Exchange Regulation Act (FERA), 1973] which was less stringent. This along with the sequential financial sector reforms paved the way for greater capital account liberalisation in India. FDI under the automatic route does not require any prior approval either by the government or the RBI - investors are only required to notify the concerned regional office of the RBI within 30 days of receipt of inward remittances and file the required documents with that office within 30 days of issuance of shares to foreign investors. Under the approval route, the proposals are considered in a time-bound and transparent manner by the FIPB.

The report then reviews FDI policy frameworks for China, Chile, Malaysia, Korea and Thailand and concluded that India's regulatory policies in terms of procedural delays, complex rules and regulations related to land acquisition, legal requirements and environmental obligations might have played a role in holding the investors back from investing into India. The uncertainty created by the actions taken by policy makers might have led to unfriendly business environment in India.

Maggon (2017) takes a policy focused approach and her paper provides a brief synthesis of the policy regime and analyses the economic and policy variables as the important determinants of FDI inflows to India. It also emphasizes the areas where the policy needs to be reviewed and to be made more conducive for foreign investment, essentially it recommends further policy liberalisation in order to boost FDI inflows.

Vyas (2015) takes an analytical approach to study FDI in India, over the period from 2000 – 2015. Using secondary data the study concluded that Mauritius was the major source of FDI into India given the Double Tax Avoidance Agreement (DTAA) between the two countries. It identified the lack of adequate infrastructure, stringent labour laws, corruption, slow government decision-making within states, corruption, limited scale of export processing

zones, high corporate taxes and indecisive government and political stability as inhibitors to FDI into India. The author also conducted a sector wide analysis for FDI inflows and identified in descending order; services, construction, computers, telecoms, motor vehicles, pharmaceuticals, chemicals and power being the biggest pull sectors. An analysis was also done by province and recommendations were based on sectoral and regional analysis on how best to remove inhibitors. The research analysis, unlike most studies, identified inhibitors to FDI and came up with sectoral and regional recommendations which I found quite useful and different. A similar approach of identifying inhibitors will also be taken when reviewing Zimbabwe.

2.4 Research on Zimbabwe

Africa in general and Zimbabwe in particular, despite being endowed with natural resources has not been able to capture the growing FDI market in order to unlock its embedded value for the economic emancipation of its people due to several inhibitors. Policy makers and other stakeholders have to create a conducive environment to attract FDI for sustainable economic growth and development.

To reflect the trend of FDI, as shown in Figure 3, sourced from RBZ Monetary Policy Statement (2016) the period post the unofficial 2008 dollarisation is captured and shows a growing trend from 2009 which marked the official dollarisation, until when FDI inflows peaked in 2013 before dropping into a downward spiral. Prior to dollarisation, FDI was miniscule as hyperinflation and currency risk paused material financial risks to investments.

The dollarisation policy of 2009, as pronounced and promulgated into law in the February 2009 Fiscal Budget statement, by the stroke of a pen removed currency volatility and inflation, which dropped from world record levels to single digit levels, businesses could plan and price goods, once again savers could deposit real money as savings and still receive value upon withdrawal. Market confidence was restored and investors began to trickle in. Another boost came from the political space as perennial foes ZANU PF and MDC, the two main political parties buried the hatchet and formed a government of national unity (GNU) in February 2009. This gave political stability to a nation that had been torn apart by an economic and political crisis.

Investor confidence returned, even the Zimbabwe Stock Exchange was on a bull run as investors poured in money to gain exposure in the once promising bread basket and pearl of Africa. The confidence gave impetus to the growth of FDI from 9 million in 2009 to a peak of

400 million in 2013 which coincidentally was the year which marked the end of the GNU by way of national elections which ZANU PF won amidst disputes. This marked a downward spiral from 400 million to 128 million in 2015 and materially dropped to 51 million in 2016. The trend is indicative of the loss of confidence after the GNU and failure by the leadership in crafting bespoke policies aimed at attracting and retaining FDI.

For the sectoral trend analysis in Table 3, the Zimbabwe Investment Authority annual reports, breaks down FDI by sector but of approved projects and not actual inflows. However, the approved projects are a good indicator of FDI appetite and sectoral preferences of investors. Of interest the total approved projects for the period 2010 to 2015 add up to 13 billion yet according to the RBZ actual inflows have just been over a billion. The difference shows how much appetite investors have for the country but are not yet willing to go all in until certain fundamentals are addressed, which shall be identified as part of the inhibitors.

Over the 5-year period 44% of projects are related to mining, Manufacturing 27%, Tourism 12%, Services 7%, Construction 6% and Agriculture at 4%. According to Bartholomew (2003) Zimbabwe is a notable mineral rich country, which mines over 40 different minerals, metals and gemstones, with a modern mining history which dates back as far as 1892. Of note, it has the highest gold concentration of gold per square kilometre, it has one of the biggest chrome, platinum and coal deposits in the world. This explains why most interest in FDI approvals are towards mining but the investment levels are not where they ought to be, understandably given the political and economic instability which have constrained FDI inflows. Given the resource levels, the FDI inflows and economic activity of Zimbabwe ought to be much higher than the current levels.

Another interesting trend is that agriculture contributes about 15% of Zimbabwe's GDP but in terms of FDI it attracts just 4%, this also is an indication of the property rights and security of tenure which is an inhibitor towards the sector. The trends indicate the level of measures needed to be taken if Zimbabwe is to turn interest into tangible investments.

Table – 3 Zimbabwe Investment Authority approvals by sector

(USD millions)	2010	2011	2012	2013	2014	2015	Weight	Totals
Total Approved Projects	519	6,761	934	680	1,142	3,199		13,235
Sectoral Analysis								
Agriculture	2	440	21	3	10	13	4%	489
Construction	259	121	120	129	30	72	6%	731
Manufacturing	53	770	58	157	650	1,936	27%	3,624
Mining	186	3,700	688	214	160	912	44%	5,860
Services	18	130	41	172	286	263	7%	910
Tourism	1	1,600	1	3	3	1	12%	1,609
Transport	-	0	5	2	3	3	0%	13
	519	6,761	934	680	1,142	3,199	100%	13,235

Source; Zimbabwe Investment Authority (ZIA) Annual Reports: (2010 - 2015).

Natural resource endowment and exploitation (especially for oil) attracts huge FDI into not only into Africa but globally, Asiedu (2006). Zimbabwe is a small market, with a GDP of 16.3 billion as at 2016 according to the Zimbabwe economic update, World bank report, however being mineral resource rich country, it has managed to garner interest with investors especially given that 44% of the FDI approved was towards mining, which was the highest with manufacturing being a distant second at 27%. Over the 5-year review period as per table 2, mining managed to attract 5.8 billion out of 13.2 billion in approved projects, this is indicative of the mineral comparative advantage which is a clear and perhaps Zimbabwe’s strongest pull factor. Interestingly, according to the world investment report (2016) we have seen neighbouring countries like Zambia and Mozambique and more recently Tanzania attracting a material amount of FDI which has mainly targeted natural resources like copper, gas and coal, which are ubiquitous in Zimbabwe, but Zimbabwe has received lower levels of FDI due to inhibitors.

Another natural resource unique to Zimbabwe is the Victoria Falls, which attracted a project worth 1,6 billion giving tourism a weight of 12% as per our sectoral analysis on Table 2. This highlights the huge impact of resource based pull factors. Combined, mining and tourism garnered 56% in FDI approvals value. In the absence of these natural resources, the investor

interest in Zimbabwe would have been very low especially given the small size of our domestic market. This emphasises the huge influence of natural resources as pull factors for the resource seeking type of FDI, Asiedu (2006), but in the absence of attractive policies the inflows will not be material.

As shown in Table 4 FDI flows into Africa have been on the rise, from 43 billion to 54 billion over the 5-year period under review, in terms of global share Africa has averaged 3%, but Southern Africa has been growing its share of the ‘cake’. Increasing one’s share is an indication of the strength of pull factors in as much as losing one’s share is a sign of weakening pull factors or perhaps some level of maturity or self-sufficiency in the use of local financing especially for relatively more developed countries like South Africa which have a developed financial services sector. For Zimbabwe to lose its regional share it is a sign that its pull factors are weakening hence why FDI is flowing to other countries, which is largely due to inherent inhibitors in Zimbabwe. Push factors would naturally affect levels of flows globally or to Africa with share thereof being indicative of pull factors. India for example as indicated in Table 3 has improved both its regional and global share of FDI owing to its radical policy changes and good governance which has made it the country which has attracted the most FDI.

Table 4 – FDI global analysis

	<i>(USD millions)</i>							
FDI Trends; Global Analysis	2010	2011	2012	2013	2014	2015	Totals	
Global	1,388,821	1,566,839	1,510,918	1,427,181	1,276,999	1,762,155	8,932,913	
Developed Countries	699,889	817,415	787,359	680,275	522,043	962,496	4,469,477	
Developing Countries	625,330	670,149	658,774	662,406	698,494	764,670	4,079,823	
Asia	412,407	426,702	409,553	431,412	467,935	540,722	2,688,731	
India	27,417	36,190	24,196	28,199	34,582	44,208	194,792	
India, Regional share	7%	8%	6%	7%	7%	8%	7%	
India, Global share	2%	2%	2%	2%	3%	3%	2%	
Africa	43,571	47,786	55,156	52,154	58,300	54,079	311,046	
Developing Countries Share	45%	43%	44%	46%	55%	43%	46%	
Africa's Global share	3%	3%	4%	4%	5%	3%	3%	
Africa's Developing countries share	7%	7%	8%	8%	8%	7%	8%	
Region								
North Africa	15,746	7,548	15,759	11,961	11,625	12,647	75,286	
West Africa	12,008	18,956	16,873	14,493	12,115	9,894	84,339	
Central Africa	7,777	7,367	8,948	7,874	9,091	5,830	46,887	
East Africa	4,520	4,779	5,474	6,790	7,928	7,808	37,299	
Southern Africa	3,521	9,137	8,101	11,036	17,540	17,900	67,235	
Southern Africa share	8%	19%	15%	21%	30%	33%	22%	
Country								
Mozambique	1,018	3,559	5,629	6,175	4,902	3,711	24,994	
Zambia	634	1,110	2,433	1,810	3,195	1,653	10,835	
South Africa	3,636	4,243	4,559	8,300	5,771	1,772	28,281	
Zimbabwe	166	387	400	400	545	421	2,319	
Regional Share								
Mozambique	29%	39%	69%	56%	28%	21%	37%	
South Africa	103%	46%	56%	75%	33%	10%	42%	
Zimbabwe	5%	4%	5%	4%	3%	2%	3%	
Zimbabwe global share	0.012%	0.025%	0.026%	0.028%	0.043%	0.024%	0.026%	
<i>Source; World Investment Report 2016</i>								

Bayai and Nyangara (2013) analysed the determinants of private investments (which includes both local investments and FDI) for Zimbabwe in the post dollarisation era and concluded that political risk, GDP, interest rates, debt servicing and trade terms were key determinants of private investment over the study period. In a bid to foster economic growth and increase

private investment, the study recommends the promotion of political stability, the attraction of FDI, enabling a structured public-private dialogue and promoting infrastructure development. Interest rates were identified as a strong pull factor given that prior to dollarisation Zimbabwe experienced high hyperinflation resulting in negative real interest rates, however post dollarisation real rates of up to 10% in real terms. This was a huge premium to the global interest rates of developed markets which were below 2% at that time. Political risk also improved as alluded to on the trend analysis with the formation of the GNU. Essentially low inflation, relatively lower political risk, dollarisation and high interest rates were identified as strong pull factors to FDI and the trend analysis in Figure 3 is consistent with their conclusions.

Muzurura (2013), notes that, whilst FDI inflows to Africa and more specifically SSA have increased significantly, Zimbabwe has not benefited from this boom. If indeed Zimbabwe was more influenced by external push factors its flows would have risen in line with regional flows, instead not only has the trend been flat but even the share has gone down, which demonstrates the weaknesses of local pull factors which have not been strong enough to attract FDI. The main motivation of the paper was to respond to the question: What factors matter most in attracting adequate FDI inflows to Zimbabwe? With the objective being, understanding of these factors will assist Zimbabwean policy makers to construct and implement strategies which increase FDI inflows. Such inflows will help in solving current challenges of abject poverty, low industrial productivity, high unemployment and stagnant economic growth especially given that adequate FDI inflows generate employment opportunities, augments domestic foreign exchange reserves, yield positive technological externalities and human capital skills. To accomplish the goal, the study relied on a mixed methodology involving cross-sectional study and also employed a multivariate regression equation using annual time series data over a 31-year period (1980 to 2011). Estimation and survey results suggested that gross fixed capital formation, inflation, trade openness, corruption, political instability, poor governance, weak export competitiveness and inconsistent government policies hinder FDI inflows to Zimbabwe. His findings, all determinants being internal (pull factors) highlight the importance of pull factors in the FDI dynamics.

Gwenhamo (2009) shows the importance of property rights and of offering a credible legal system in order to attract and retain FDI in Zimbabwe over the period 1964 – 2005. By using a property rights index for Zimbabwe to determine the impact on FDI, he established that property rights and the efficacy and independence of the judiciary are consistently an

explanatory variable of FDI in Zimbabwe. He also observed that political instability was closely linked to property rights and was also a significant explanatory variable. He basically looks at the period before and after the government compromised property rights in the late 1990's when it abandoned the market based 'willing buyer willing seller' land reform policy and opted for the compulsory land acquisition programme. Essentially land was appropriated without compensation, this also sparked spontaneous and sporadic invade farm and company take overs. This means an investor has no guarantee that upon investment legal title of property is secured, it makes the country very risky and FDI is fairly risk-averse. 15 years down the line the issue of property rights remain an issue and an inhibitor to FDI. Not only has it threatened FDI but even locals do not feel safe keeping their money locally hence they have been forced to save and invest abroad, further compromising the resource gap.

Closely linked to property rights is the importance of the rule of law and legal framework, Gwenhamo (2009) showed that an efficient judiciary system, which is the custodian of the rule of law, is a significant explanatory variable to FDI because investors want disputes settled promptly and more importantly fairly, hence the adage 'justice delayed is justice denied' given that in business time is of the essence. The rule of law should be seen as independent to the executive and no one should be above the law. It gives investors comfort to know that legal contracts are enforceable and there is an equitable justice system ready to attend any disputes without bias, fear, influence or favour.

More importantly the laws need to be seen as just and fair which give an equitable platform to all. Unfortunately, our legal framework is compromised, we had a new constitution in 2013 and to date Acts have not yet been synchronised to the constitution and some laws are seen as inhibitors to FDI. For example, the indigenisation act which requires that locals take up 51% of foreign companies. Where an investor fails to get a suitable partner, it means the investment opportunity will be lost as locals may fail to fund huge transactions. Also, it compromises control as investors may want to manage and control the direction of a company. The government has promised to review it as they have realised their error but they continue to procrastinate. This results in investors switching and investing in more favourable jurisdictions, which is consistent with Dunning's (1977) OLI principle; essentially FDI will flow to jurisdictions which will give ownership security of property rights, patents, access rights which can only be made sacrosanct in an environment with equitable legal framework which observes

the rule of law. Where ownership is threatened FDI is inhibited or will be nimble footed as it flees to safer jurisdictions.

2.5 Research Issues and Gaps

The most glaring gap from the literature review is that very few studies which have synthesized determinants of FDI with policy framework. Most studies lean towards either determinants and a few glean over policy framework without a detailed and vital link between the two as determinants are a result of a policy framework. It was also observed that most of the studies were focused on ways to improve the policy framework of India by studying determinants of FDI in India with policy recommendations dwelling upon identified determinants whilst ignoring policy frameworks of other countries which have resulted in improving FDI inflows. This presents another gap as one of the goals of this study is to devise applications to policy framework with regards to Zimbabwe. A lot of studies have been done on determinants of FDI, have focused on panel countries in a region of developed, developing or African countries, a gap exists on FDI determinants of individual countries. The other gap is that most work on India is outdated, capturing data to about early 2000 or 2010, which fails to capture the huge 'J curve trend' of the last 5 years to 2015.

Whilst researchers seem unanimous on the importance of FDI the variables however seem as diverse as the researchers however foreign exchange reserves, trade openness, stability and market size appear quite prominently. The approaches taken by the studies which focused on policies seem to have reviewed India's policies in isolation save for a few which have compared policy framework with other countries. This study intends to fill this gap by using a policy review to guide choice of variables forming a bridge between the policy review and the quantitative aspect of the research.

These are some of the gaps this study intends to fill, however with caution, as noted in the literature review a copy and paste approach will not suffice but rather the focus will be on providing guidelines for Zimbabwe in devising a bespoke policy framework.

2.6 Conclusions

The literature review provided insight into the theories and research done on the study. Most studies on FDI seem to take a quantitative approach towards determinants and towards the understanding of FDI inflows with a few taking a qualitative approach of policy reviews yet

more insight seem to be gained from the policy review approach. The study seeks to close this gap by taking an approach which looks at determinants quantitatively in the backdrop of a policy review.

The literature review of Zimbabwe has also highlighted differences and similarities of the two countries, with the most glaring similarities being the protectionism India went through prior to reforms being the very policy Zimbabwe seem bent on maintaining with the evident poor results. The major differences however is that a sectoral analysis shows that India seems to attract FDI towards services yet Zimbabwe is still at a primary industry stage, attracting towards mining. This calls for sensitivity when drawing lessons from India in a bid to applying them to Zimbabwe.

The literature review has also given insight into various methodologies employed to carry out the different studies, which has provided guidance for the study's methodology in chapter 4.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research methodology chapter describes the data collection techniques, instruments and procedures employed in this study to address the research questions and objectives. As aforementioned in Chapter 1 the principal research problem is;

What are the determinants of FDI for India and which key policies have led to the growth of FDI in India?

The research objective of the study being, is thus to examine the trend in flows of FDI to India as a case study over the past 27 years and assess the determinants and policy framework which gave impetus to the phenomenal FDI inflows. By studying the determinants behind the growth in FDI, an understanding of the impact and significance of various variables on FDI inflows into the country will be gained which will lead to the study devising policy recommendations for the Zimbabwean government and stakeholders.

The chapter begins with a brief discussion of the chosen research approach and strategy, data collection source, method and type. The variables and key terms which form part of the analytical model for the determinants of FDI are also described and defined. Thereafter the econometric model employed in the study is discussed as well as the diagnostic tests used to ensure the model is valid and reliable. The chapter closes by highlighting limitations inherent in the research methodology.

3.2 Research Approach and Strategy

From the literature reviewed in section 2.3 and 2.4 it is evident that different approaches have been used to assess the determinants and policy framework of FDI. Broadly the approaches can be grouped as;

- Industry/Country specific – where a study focuses on a particular industry or country and assesses the impact of FDI. Bajpai and Sachs (2006) focused on India with a review of its policies and determinants. Malhotra (2014) also focused on India but included an industry sectoral analysis as part of his study. This approach invariably uses secondary data with the aid of tools like time series analysis.

- Cross-sectional – where a study assesses a number of countries or a region as done by Asiedu (2001) who analysed determinants for SSA countries. Such an analysis can then be used to draw lessons and give recommendations across the cross section. This approach also uses predominantly secondary data in conjunction with panel data analysis tools.
- Surveys - The UN report by Pearce, Islam, Sauvart, (1992) entitled ‘The determinants of FDI: A survey of the evidence’, provides an alternative qualitative approach. This is survey-based and involves questionnaires and/or interviews, which play a role in analysing determinants of FDI by incorporating more qualitative variables which give additional insights to quantitative tools especially when used in a corroborative manner. Surveys use primary data which can be tailor-made to meet specific objectives.

This study uses a country specific case study using a deductive quantitative approach to answer the research questions, as this captures the determining key success factors and policy framework behind the phenomenal growth of FDI inflows into India. The determinants will be statistically analysed by using independent variables chosen, as guided by a qualitative review of India’s policy framework. The study uses a time series approach applied on secondary data in order to meet the research objectives.

A regression model will be estimated using EViews, and inferences will be drawn on the relationships, significance and sign of relationships of the independent variables to the dependent variable in the model. The empirical model will be drawn from various studies which have examined a number of different variables, with this model discussed fully in section 3.4.

3.3 Data Collection, Frequency and Choice of Data

Secondary data will be used in the case study because it is the most relevant given the macro nature of the study. The data for all the variables was obtained from the World Bank website save for the FDI restrictiveness index which was sourced from the OECD website - further details on the variables are in section 3.4.2.

The sources have been chosen because they are credible and professional institutions which have been a source of information for years. The relevant data will be collected for the 27-year period from 1990 to 2016. The period captures the material policy reform paradigm which

began in 1991 and led to a period of high growth in FDI, culminating in India becoming the biggest recipient of FDI in the world. Whilst quarterly data would have been preferred for the study, due to limited availability, annual data will be used in the model which will translate to 27 observations.

3.4 Data Analysis Methods

3.4.1 Empirical Model Building

A policy review analysis will be employed to highlight policy milestones which were instrumental in attracting FDI to India, together with the literature review in guiding the process of choosing quantitative variables for the econometric model. Bajpai and Sachs (1997) used both a regression analysis to assess determinants and a policy review juxtaposed against trends. They used this approach to provide guidelines and lessons from other East Asian countries especially China in devising policy recommendations for India in order to increase economic growth and promote FDI. A similar policy review analysis was implemented by Ahmed Hakro and Ghumro (2007) in their analysis of Pakistan, with quantitative variables drawn from the policy review, which included real wages, output growth, trade openness, labour force, fixed capital formation, human capital development, liberalisation and foreign exchange rates. A similar methodology of using the policy review to guide the quantitative model was also used by Gossel and Biekpe (2015) who used policies to inform choice of independent variables for their FDI push and pull paper. The approach is further supported by Loksha (2012) study of FDI in India who identified policy framework and market size as the major determinants of FDI inflows.

The literature review noted scholars who used a similar approach with a multiple regression model for FDI determinants analyses; Shashank et al. (2012) and Narayan (2014) for example used a multiple regression model with panel data and their independent variables included GDP, economic growth, market size, trade openness, financial development, government expenditure, government debt, remittance flows and foreign exchange reserves among others.

3.4.2 Variables

The choice of independent variables for the empirical model are motivated by the literature review. Whilst the policy framework is qualitative, it has quantitative implications which inform the selection of independent variables in the empirical model.

The study uses a similar approach where a qualitative policy review informs the choice of quantitative variables including the use of an index which captures the sum total of qualitative work done by policy makers in India in order to improve FDI inflows. The addition on the index to the study makes the study wholesome as both qualitative and quantitative factors are incorporated in a statistical model.

The table 5 below gives a summary of the nexus between policy milestones and independent variables in the empirical model building framework. The table also indicates the *a priori* expectation of the relationship between each of the independent variables and the dependent variables. The research which justifies the choice of variables is also tabulated.

Table 5 – Variables

Policy Milestone	Variables	<i>A priori</i> Expectation	Research Support
	<u>Dependent</u>		
	FDI		
	<u>Independent</u>		
Trade and Taxation Policies	TO	+	Azam & Lukman (2010), RBI
Exports and Exchange Controls	FXR	+	Pattayat (2016), Narayan (2014)
Fiscal and Monetary Policies	I	-	Loksha (2012), Malhotra (2014)
Fiscal and Monetary Policies	EX	-	Shashank (2012), Pattayat (2016)
Economic Liberalisation	GDP	+	Chaitanya (2004), Narayan (2014)
Policy framework revisions	RINDEX	-	RBI, Chaitanya (2004), OECD
Key			
+	Positive relationship with dependent variable.		
-	Negative relationship with dependent variable.		

Source: Author's tabulation

The details of these variables and the rationale behind the expected relationships with FDI drawing from both previous empirical studies and the policy review are detailed below:

- FDI is foreign direct investment in year t , which is defined as direct equity investment inflows into the Indian economy. It includes equity capital, earnings reinvested, and other capital which translates into having control or significant influence of at least 10% on the management of a company in India owned by foreigners (World Bank). It is measured in current U.S. dollars and is divided by the Consumer price index (CPI) to ensure real value input in the model (with a base year of 2010). As shown, FDI is the dependent variable in the model.
- TO is trade openness in year t , which is defined as the sum of exports and imports of goods and services measured in current U.S. dollars. It is also divided by the CPI series to ensure a real value input in the model.

Trade openness is expected to have a positive relationship with FDI based on findings by Azam & Lukman (2010). As trade increases it is a signal of a growing economy and market which translates to an increase in potential returns which is expected to attract more local and foreign investors.

Singhania & Gupta (2011) found that India's liberalisation of their trade policies was one of the most revolutionary steps taken by policy makers as it opened the economy to the modernisation of technology and globalisation. Therefore trade openness has been chosen as a variable in order to assess the significance and impact of the trade liberalisation policies on FDI.

- FXR refers to the foreign exchange reserves in year t , which is defined as total reserves comprising of monetary gold holdings, special drawing rights, foreign currency reserves of IMF members held by the IMF, and holdings of foreign currency under the control of monetary authorities (World Bank). It is measured in current U.S. dollars and is converted to real values similarly to trade and FDI.

Foreign exchange reserves are expected to have a positive relationship with FDI inflows based on findings by Pattayat (2016). Foreign exchange reserves have a signalling effect of stability of the exchange rate, it also means in times of adversity or economic shocks an economy is able to sustain itself. Foreign investors expect their returns in foreign currency and an ability to recoup and remit their investment is given comfort

by a growing balance of foreign reserves. Sahni (2012) found that a large and growing balance of foreign currency reserves makes a country attractive to investors.

The growing reserves are partly due to the growing remittances inflows into India which were found by Naseem (2012) to have a positive relationship with reserves. Growth in exports also led to growing reserves as identified by Jayakumar (2014), that the increase in FDI inflows in India post the policy reforms of 1990-91, led to the stimulation in productivity of export-oriented industries. The exchange reserves variable has been chosen so as to assess its impact on FDI which is closely allied to remittances and India's export policy framework.

- I is the inflation rate in year t, which is measured as the annual percentage change in the CPI, capturing the change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals.

Inflation is expected to have a negative impact on FDI based on findings by Lokesha (2012). Investors need stability as time value of money is of the essence on investments. Inflation erodes consumer purchasing power and thus weakens future returns. A high inflation rate also means a higher cost of capital for firms as interest increases which raises business risk. This explains why the study expects an inverse relationship between FDI and inflation.

Kaur & Sharma (2013) found the decline in the inflation rate from the pre reform double digit levels to the stable single digit levels as one of the major determinants which attracted higher FDI. This justifies the choice of the variable as monetary policies which have led to lower inflation need to be thoroughly investigated as they have led to higher inflows of FDI.

- EX, the exchange rate in year t, is defined as the official exchange rate determined by monetary authorities or determined in the legal currency exchange market. It is calculated as an annual average based on monthly averages (local currency units relative to the U.S. dollar).

The exchange rate is expected to have an inverse relationship with FDI, thus a weakening currency would discourage foreign investments. This is because foreign investors are averse to currency risk as they financially report in their own domestic currency. Therefore a weak currency in a foreign subsidiary or investment would weaken their future earnings, and as such they would generally want to invest in a stable currency. Shashank (2011) found that the strengthening of the local currency in India resulted an increase in FDI.

Shah & Parikh, (2012) found the pre reforms Foreign Exchange Regulation Act (FERA) of the 1970's was an inhibitor to FDI as the rate was controlled and foreign exchange controls were too restrictive for business. However the 1990's reforms translated to free market policies with market determined exchange rate and foreign currency management systems.

The variable has therefore been chosen to investigate the impact of foreign exchange reforms and the exchange rate on FDI.

- GDP in year t is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products (World Bank). Data is in current U.S. dollars and divided by the CPI to obtain a real GDP as an input into the model.

GDP is expected to have a positive relationship with FDI as found by Chaitanya (2004), with more recent studies such as that by Mahapatra & Patra (2014) having confirmed the same. Investors consider market size and growth prospects when considering investments and GDP is a relevant measure thereof. A growing economy attracts FDI and FDI inflows lead to higher growth rates as noted by Maggon (2012). This is why the study expects a positive relationship between GDP and FDI.

The RBI report, reviewed in chapter 2 details a number of economic polices such as privatisation, currency reforms and tax policy, changes as highlighted by Chaitanya (2004), which have been changed which have contributed to the growth of the economy.

This justifies the choice of the GDP as a variable.

- Rindex, the FDI Regulatory restrictiveness Index is perhaps the most important variable in the study for two reasons, it captures the qualitative essence of the policy reforms in India on a very broad scope as detailed below and also because in the current literature reviewed in chapter 2, no known study has used it as a determinant of FDI.

It is defined by the OECD as a measure of statutory restrictions on FDI across 22 economic sectors, which gives it a broad sectoral approach in methodology. It gauges the restrictiveness of a country's FDI policy framework by looking at the four main types of restrictions on FDI:

- 1) Foreign equity limitations; as shown in Chapter 2, foreign ownership was treated with suspicion before economic reforms with various equity caps in different sectors which have gradually been relaxed over the review period, this was identified as an inhibitor of FDI by Loksha and Leelavathy (2012). Chaitanya (2004) also makes similar findings which were detailed further by the RBI report.
- 2) Discriminatory screening or approval mechanisms; again as shown in chapter 2, the The New Industrial Policy of 1991 removed cumbersome and bureaucratic screening and approval mechanisms by allowing automatic routes for FDI which did not require government or RBI approval.
- 3) Restrictions on the employment of foreigners as key personnel and other operational restrictions, such as restrictions on branching and on capital repatriation or on land ownership by foreign-owned enterprises.

The index ranks FDI restrictions on a scale from 0 (open) to 1 (closed). The overall restrictiveness index is the average of sectoral scores. The discriminatory nature of measures, i.e. when they apply to foreign investors only, is the central criterion for scoring a measure. Therefore the index is expected to have a negative relationship with FDI, given that over the period under review India has instituted reforms to address inhibitors against FDI.

The natural log of GDP, FDI, trade, reserves and the exchange rate were computed so as to ensure the variables are on a similar scale reducing the possibility of heteroscedasticity. Also, the added advantage of using natural logs is that coefficients can be interpreted as elasticities. However, this was not an appropriate adjustment for inflation which is already measured as a percentage or the Rindex as this is an index measure.

3.4.3 Analytical Model

To statistically test the determinants of FDI the study employs the Autoregressive Distributed Lag (ARDL) model, which is motivated by Mahalakshmi (2015) who used the same ARDL model to examine FDI determinants in India. Gupta (2017) carried out a similar study using the same ARDL model for India over a 32 year period, which is consistent with Hossain (2011) who showed that whilst conventional cointegration requires large observations, it can also produce robust results even with small observations. The model can also be used for series which are $I(0)$ and $I(1)$ as shown by Ozturk (2009).

The study will first review the descriptive statistics of the series and undertake a correlation analysis of the variables, thereafter analysing the stationarity of the data by testing its unit root properties. A cointegration bounds test will establish the existence or otherwise of a long-run causal relationship and the suitability of using an error correction model. Finally, the Granger causality test will be used to examine the causal relationship between FDI and the defined independent variables.

3.4.4 Unit root tests

As the estimation model relies on time series, it is important that the input data is stationary so as to avoid spurious regression outputs. To ensure the data is stationary, the Augmented Dickey Fuller (ADF) test. The null hypothesis of this test is that the series has a unit root, meaning that it is non-stationary while the alternative is that the series does not contain a unit root i.e. it is stationary. The null hypothesis cannot be rejected should the test statistic be less negative than the critical value (CV). Where the series is confirmed to be stationary the least squares regression will be performed.

3.4.5 Autoregressive Distributed Lag (ARDL) Model

The study employs the ARDL model to explain the six variable's relationship to the dependent variable, by measuring their significance and impact in the long run.

The model estimates the relationship with the equation;

$$\Delta FDI_t = \beta_0 + \sum \beta_1 \Delta FDI_{t-i} + \sum \gamma_2 \Delta TO_{t-j} + \sum \gamma_3 \Delta FXR_{t-j} + \sum \gamma_4 \Delta It_{t-j} + \sum \gamma_5 \Delta EX_{t-j} + \sum \gamma_6 \Delta GDP_{t-j} + \sum \gamma_7 \Delta RINDEX_{t-j} + \theta_0 FDI_{t-1} + \theta_1 TO_{t-1} + \theta_2 FXR_{t-1} + \theta_3 It_{t-1} + \theta_4 EX_{t-1} + \theta_5 GDP_{t-1} + \theta_6 RINDEX_{t-1} + \varepsilon_t \quad (1)$$

The ARDL model is a standard least squares regression which include lags of both the dependent variable and explanatory variables as regressors. The appropriate lag selection is based on a criterion such as Akaike Information Criterion (AIC).

3.4.6 ARDL Cointegration Bounds Test

The study uses the ARDL approach as a cointegration technique in order to establish the existence of an equilibrium state between variables (Pesaran et al., 2001). Failure of variables to cointegrate results in spurious regressions outputs with non-stationary data. The cointegration technique determines the existence of a long run relationship between time series variables that are non-stationary and establishes the series' parametric equation for the Error Correction Model (ECM). The model equation output defines the long run and short run relationship of the underlying variables (Pesaran and Shin, 1999).

The method also identifies multiple cointegrating vectors in the relationship. The model equation below defines the long run relationship as;

$$\Delta FDI_t = \beta_0 + \sum \beta_1 \Delta FDI_{t-i} + \sum \gamma_2 \Delta TO_{t-j} + \sum \gamma_3 \Delta FXR_{t-j} + \sum \gamma_4 \Delta EX_{t-j} + \sum \gamma_5 \Delta GDP_{t-j} + \sum \gamma_6 \Delta RINDEX_{t-j} + \sum \gamma_7 \Delta It_{t-j} + \alpha ECT_{t-1} + \varepsilon_t \quad (2)$$

Where:

ECT_{t-1} being the error correction term.

The F- statistic (Wald test) is then used to test the hypothesis of the existence of the long-run relationship in the variables, where;

Ho: The null hypothesis – a long run relationship does not exist, where F-stat > Critical value.

H1: The alternative hypothesis – a long run relationship exists, where F-stat < Critical value.

The F_ statistic has to satisfy two sets of critical values, the first set assumes that the variables are stationary at level, which is the lower critical bound and the second set assumes variables

are stationary at first difference which is the upper critical bound. Thus the Bounds test is used to draw a conclusion if variables are integrated of zero $I(0)$ or one $I(1)$.

3.4.7 Granger causality test

The Granger-causality test is employed to test causality in the model. The null hypothesis being that the independent variable does not ‘Granger cause’ the dependent variable in the first regression and that the dependent variable does not Granger-cause the independent variable in the second regression. The F-statistic is then used to test the hypothesis against p-values.

Upon assessing that the time series for each stationary variable and that the linear combination of the variables are cointegrated, regression analysis per the selected dependent variable and independent variables may be used, without the risk of getting a spurious regression output.

3.5 Research Reliability and Validity

Relevant econometric tests such as coefficient of determination R^2 , Durbin – Watson [D-W] statistic, Standard error of coefficients, T Statistics and F- ratio will be carried out in order to assess the relative significance, desirability and reliability of model estimation parameters.

Validity shall be tested to ensure the observed change in the dependent variable is indeed caused by corresponding change in the hypothesized independent variable. This avoids dependent variables being caused to change by extraneous variables or having spurious correlations and also avoids temporal correlations in the model which may distort conclusions. The objective being to inspire confidence in the hypothesis testing.

3.6 Limitations

The limitations of the study methodology are that the use of secondary data implies that the study is only as credible as the sources of data, in the event of any of the institutions losing their credibility it may compromise the credibility of the study. The other limitation of secondary data is that it is difficult to verify independently hence one has to rely on the credibility of the institutions information dissemination systems as opposed to primary data where a researcher independently collects and verifies data.

The study has also taken a national approach to the study, future studies can do a sector specific analysis so as to come up with relevant advice per sector especially on the policy front. The

time period could have been extended before the reforms for a more wholesome analysis but due to data availability of variables the study only covered 27 years.

CHAPTER FOUR

RESEARCH FINDINGS, ANALYSIS AND DISCUSSION

4.1 Introduction

In this chapter the results from the quantitative methodology that was applied to the raw data, as discussed in chapter 3, are presented and analysed in order to address and provide conclusions to the research problem. This includes the descriptive statistics and correlation of variables along with the analysis of the results of the stationarity/unit root test, cointegration bounds test and Granger causality tests. The regression analysis also includes the long and short-run findings. These results are interpreted by drawing on the theoretical models as well as the Indian policy framework and previous empirical studies reviewed in chapter 2.

4.2 Descriptive statistics

The descriptive statistics for the variables are shown in Table 6. The values for FDI, GDP, trade and reserves represent the real values.

Table 6 – Descriptive Statistics

	FDI	GDP	INFLATION	EXCHANGE	TRADE	RESERVES	RINDEX
Mean	1.59E+08	1.19E+10	7.7292	43.2827	4.47E+09	1.64E+09	0.3977
Median	88855193	1.11E+10	7.1643	44.9416	3.05E+09	1.70E+09	0.4180
Maximum	5.39E+08	1.67E+10	13.8702	67.1953	9.32E+09	3.72E+09	0.6300
Minimum	2823294	8.36E+09	3.6848	17.5035	1.76E+09	2.46E+08	0.2120
Std. Dev.	1.44E+08	2.93E+09	3.1602	11.9279	2.64E+09	1.08E+09	0.1324
Skewness	0.8764	0.2355	0.3021	(0.0805)	0.4143	0.2325	0.2847
Kurtosis	2.8700	1.4705	1.8700	2.8829	1.5491	1.6462	1.7017
Jarque-Bera	3.4754	2.8814	1.8471	0.0446	3.1405	2.3052	2.2610
Probability	0.1759	0.2368	0.3971	0.9780	0.2080	0.3158	0.3229
Observations	27	27	27	27	27	27	27

Source: Author's computations

FDI and GDP are substantive values for India, demonstrating the size of the country's production output as well as the substantial amount of FDI that the country has received, on average, per year during the sample period. The average inflation rate in the country was high at 7.73%, having reached a high of 13.87% in 1991 – the year in which the reforms were introduced (and 13.23% in 1998 coinciding with the Asian financial crisis) while a low point of 3.68% was observed in 2001. The Indian rupee depreciated substantially against the USD over the period 1990 to 2016, consistent with the fact that the minimum and maximum values were observed in the first and last years of the sample respectively. Trade comprises a critical component of any economy and this is certainly true for India which has witnessed substantial growth in trade over the past 30 years, particularly from 2004 to 2011, with the total value of trade having tapered off since then. India's high level of foreign reserves has been well-documented with notable increases from 1990 to 2009 but with a slight decline seen in the years thereafter. The restrictiveness index declines notably over the period, consistent with the reforms implemented by the government to allow greater foreign ownership, with the high of 0.63 and the low of 0.21 observed in 1990 and 2016 respectively.

In terms of variability from the mean, which is measured by the standard deviation the restrictiveness index has the lowest variability which is consistent with the index bounds of 0 to 1. Reserves, GDP and FDI have high variability indicating the high growth in these series over the time span.

For skewness, a measure of the extent data is symmetrical around the mean, a coefficient of 0 signifies a symmetric normal distribution. As such negative coefficients depict a left tail and a positive coefficient signify a right tail relative to the mean. Table 6 shows that all variables except for the exchange rate are positively skewed although almost all are close to 0 except for FDI and TRADE.

Kurtosis, a measure of the tailedness of a probability distribution has a benchmark of 3. Higher values signify a peakness in the distribution while values of less than 3 signify a flatter distribution. All variables have a kurtosis of less than 3, signifying flatter distributions with no peaks or volatile data. However, the exchange rate variable has the highest coefficient of 2.88.

To test whether the variables are normally distributed, the Jarque–Bera measure is used. The p-values in Table 6 are higher than any of the conventional significance levels (10%, 5% and 1%) and therefore the null hypothesis that each series is normally distributed cannot be

rejected. Thus, in line with the skewness and kurtosis measures discussed above, these series are not significantly skewed and do not exhibit excessively fat or thin tails.

4.3 Correlation matrix

Table 7 shows the cross correlations of variables with the coefficients ranging from as low as 0.04 to as high as 0.92 for the positively correlated variables and the negatively correlated variables ranging from -0.01 to -0.91. The dependent variable FDI is positively correlated with GDP, the exchange rate, trade and reserves. It is, however, negatively correlated with inflation and the RINDEX. Generally the coefficients between the dependent and independent variables are high, except for inflation, indicating the materiality of the impact of independent variables. Inflation generally has negative and low correlations with the other variables with the RINDEX showing high levels of correlation with most variables negatively. This suggests that as foreign ownership restrictions have declined, GDP and FDI, among others, have increased. However, the potential non-stationarity of some of these variables means that the series may be trending in the same direction over time, suggesting a significant relationship, even if there is not one. As such, it is imperative to conduct unit root tests; the results of which are presented in the next section.

Table 7- Correlation matrix

	FDI	GDP	INFLATION	EXCHANGE	TRADE	RESERVES	RINDEX
FDI	1.0000						
GDP	0.7995	1.0000					
INFLATION	(0.0096)	0.1466	1.0000				
EXCHANGE	0.5667	0.4179	(0.4058)	1.0000			
TRADE	0.8676	0.9211	0.0495	0.6100	1.0000		
RESERVES	0.9005	0.8416	(0.1206)	0.6306	0.9277	1.0000	
RINDEX	(0.8238)	(0.7259)	0.2640	(0.8783)	(0.8780)	(0.9055)	1.0000

Source: Author's computations

4.4 Unit root test

The ADF method was used as a unit root test tool, to verify stationarity of variables data. Stationary data invariably results in spurious effects in regression models, hence the

importance of the test. The test was applied both at level and after first differencing. The results are detailed as per Table 8 below.

Table 8 – Unit root test ADF results

Variable	t stat		CV 1%		CV 5%		CV 10%	
	(0)	(1)	(0)	(1)	(0)	(1)	(0)	(1)
LFDI	-1.5315	-6.3267	-3.7204	-3.7343	-2.9850	-2.9907	-2.6318	-2.6348
LGDP	-0.9087	-5.1608	-3.7204	-3.7343	-2.9850	-2.9907	-2.6318	-2.6348
INFL	-2.6033	-6.9593	-3.7204	-3.7343	-2.9850	-2.9907	-2.6318	-2.6348
LEXRATE	-3.6794	-4.5123	-3.7204	-3.7343	-2.9850	-2.9907	-2.6318	-2.6348
LTRADE	-1.4168	-3.4119	-3.7204	-3.7343	-2.9850	-2.9907	-2.6318	-2.6348
LRESERVES	-1.8779	-3.3603	-3.7204	-3.7343	-2.9850	-2.9907	-2.6318	-2.6348
RINDEX	-1.3904	-3.4464	-3.7204	-3.7343	-2.9850	-2.9907	-2.6318	-2.6348
Key	Decision							
H₀	Unit root - Variable not stationary							
H₁	No unit root - Variable is stationary							
ADF < CV	Fail to reject null		Non Stationary data					
ADF > CV	Reject Null		Stationary data					

Source: Author's computations

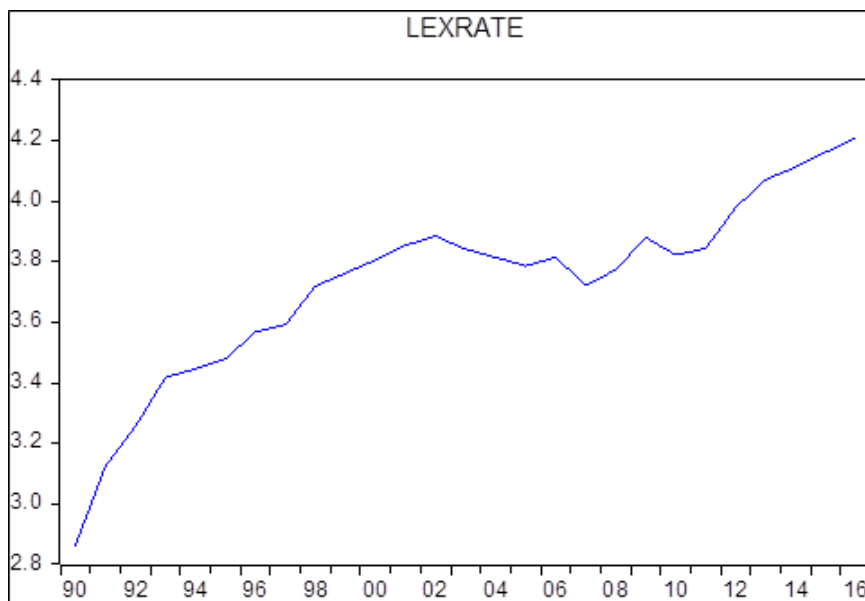
The ADF tests were estimated using an intercept (but no trend), with the Akaike Information criteria (AIC) used to determine the optimal number of lags so as to remove all autocorrelation.

In level terms all variables were found to be non-stationary at the three critical levels and thus are not integrated of order zero, however the exchange rate prompted further tests as according to the unit root test results in Table 8 it appeared stationary at level at the 5% and 10% significance level.

A graphical analysis of the exchange rate series was conducted, as shown in Figure 6, and it suggests that the series is non-stationary, contrary to the ADF test result, as it does not appear to have a constant mean or variance. There is some evidence to suggest the existence of a trend term, and thus the ADF test was re-estimated including a trend. This yielded a test statistic of -1.9617 (CV of -3.6329 at 5%) and thus the null hypothesis of a unit root could not be rejected as the statistic was not more negative than the critical value. 5.

To further confirm this conclusion, the KPSS test was estimated (this test reverses the null and alternative hypotheses of the ADF test - the ADF test has low power under certain conditions - look at Brooks for more info on this). The test statistic for this test was 0.6962 meaning that the null hypothesis that the series is stationary was rejected (CV of 0.4630 at 5%) as the statistic is greater than the critical value. Thus, it can be concluded that the exchange rate series has a unit root in levels. The test in first differences confirms that the series is stationary and thus, similarly to the other series, it is I(1).

Figure 6 – Exchange rate unit root test



Upon being first differenced, all variables are found to be stationary, with the null hypothesis rejected are not stationary at the 1% significance level for GDP, FDI, inflation and the exchange rate while for trade, reserves and the Rindex, the null hypothesis is rejected at 5%. Thus all variables are integrated of order 1, meaning that they contain a single unit root and have to be differenced once to become stationary. As all the variables satisfy the requirement of the ARDL model that they are either stationary at either I(0) or I(1), the model was estimated.

4.5 Cointegration – ARDL Bounds test

As explained in Chapter 3, cointegration was tested using the ARDL bounds test at 2 lags. Given the null hypothesis that no long run relationship exists.

The model test output F- statistic is then juxtaposed to the bounds for comparison. Given the model test F- statistic of 8.5397, as shown in Table 9, which falls outside the upper and lower

bounds of the model, this means that the null hypothesis of no long-run relationship can be rejected in favour of the alternative that a cointegrating relationship exists between the variables. Thus, a long-run model of the relationship between FDI and the various independent variables can be estimated, along with a short-run error correction model.

Table 9 – Cointegration ARDL Bounds test

F-Bounds Test				
Null Hypothesis: No levels relationship				
Test Statistic	Value	Significance	I(0)	I(1)
<i>Asymptotic: n=1000</i>				
		<i>Critical Level</i>	<i>Lower Bound</i>	<i>Upper Bound</i>
F-statistic	8.5397	10%	2.12	3.23
k	6	5%	2.45	3.61
		2.5%	2.75	3.99
		1%	3.15	4.43

Source: Author's computations

4.6 Long run regression results

The long run estimates indicate that the exchange rate, GDP, trade and Rindex have a negative relationship with FDI, where inflation and reserves have a positive relationship. Table 5 indicated the priori expected relationships, with reserves, exchange rate and the restriction index consistent with expectations. Trade, inflation and GDP show unexpected signs but are however insignificant in explaining the long run estimates. Only the exchange rate and the Rindex are the only significant factors.

Table 10 – Long run estimates

Conditional Error Correction Regression					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
C	89.9016	43.3596	2.0734	0.0768	
INFL(-1)	0.0483	0.0705	0.6850	0.5154	
LEXRATE(-1)	-2.5002	0.9652	-2.5904	0.0359	
LGDP(-1)	-1.6223	1.8562	-0.8740	0.4111	
LRESERVES(-1)	0.2034	0.8882	0.2290	0.8254	
LTRADE	-0.6529	1.0737	-0.6081	0.5623	
RINDEX(-1)	-17.9238	5.4234	-3.3049	0.0130	

Source: Author's computations

The two significant factors have the most material impact on FDI, with each 1% increase in the nominal exchange rate results in a 2.5% decrease in FDI. Thus, any appreciation of the Indian rupee against the dollar resulted in more FDI while the opposite is true for a depreciation. For every 1/100 unit decrease in the index, FDI will increase by 17.92%.

4.7 Short run regression results

The cointegration tests in 4.5 attested to the evidence of a long-run relationship and Table 11 below, details the parameter estimate of the short run coefficient, which is negative and significant which is an indication that long run cointegration exists among the variables. It also shows the significance, materiality and relationship of the variables in the short run.

In the short-run all variables are significant except reserves. They all have a negative relationship with FDI except inflation, with exchange rate, Rindex and GDP having the most material impact in the short-run.

Table 11 – Short run error correction terms

	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	C	89.9016	8.5470	10.5185	0.0000
	D(INFL)	0.0604	0.0150	4.0424	0.0049
	D(LEXRATE)	-11.6404	1.9323	-6.0240	0.0005
	D(LGDP)	-6.5575	1.3807	-4.7495	0.0021
	D(LRESERVES)	-0.1878	0.3050	-0.6157	0.5576
	D(RINDEX)	-14.1479	2.7155	-5.2101	0.0012
	CointEq(-1)*	-1.3620	0.1293	-10.5365	0.0000

Source: Author's computations

The results above also show a negative cointEq which is significant given its p-value of less than 1%. The coefficient shows that there is long run causality from the independent to the dependent variable, which also confirms cointegration as tested above. The negative sign signals how the short-run error claws back at a coefficient of -1.3620 in order to correct the long run disequilibrium, Hossain (2011).

The gap corrected between the long run equilibrium and the dependent variable can be estimated based on the cointEq coefficient to 136%, essentially this is the rate at which the previous period disequilibrium is corrected annually. Which indicates that where variables are not at their long-run equilibrium values, the adjustment occur at a rate of 136% per annum for these variables to return to their long-run equilibrium. Which is why some scholars expect the rate to be between 0 and 100%, implying a rate of over 100% means the system is overcorrecting unsustainably. However, Narayan Kumar (2006) accept that the coefficient can be more than 1.

Table 12 – Regression model output summary

R-squared	0.93572	Mean dependent var	0.1849	
Adjusted R-squared	0.88133	S.D. dependent var	0.4309	
S.E. of regression	0.14844	Akaike info criterion	-0.6711	
Sum squared resid	0.28646	Schwarz criterion	-0.0861	
Log likelihood	20.38931	Hannan-Quinn criter.	-0.5089	
F-statistic	17.20377	Durbin-Watson stat	2.7114	
Prob(F-statistic)	0.00001			

Source: Author's computations

The model output shows a coefficient of determination R – squared of 93.57 % indicating that the independent variables selected in the model explain 93.57% of variation in the dependent variable FDI. The probability F-statistic value of 0.00001 indicates that the regression model is a good fit. However the R-squared is limited, in that the more variables the model will more likely have a high R-squared value without the regressors having any incremental explanatory value. Hence the adjusted R-squared (88.1%) is a preferred measure of goodness of fit.

On a null hypothesis that all the coefficients used in the regression model are zero, the model uses the F-statistic to test the hypothesis. The p-value of 0.00001 is below the critical value of 1% therefore we reject the null hypothesis.

The DW statistic is a measure used to assess the level of serial correlation in a model. As a rule of thumb a value of 2 shows that there is no evidence of positive serial correlation in the residuals. From the model the DW statistic is 2.7114 which indicates the absence of serial correlation in the residuals.

4.8 Granger causality test

In order to establish direction of causality relationships in the model, a granger test indicated the results in Table 10 below. The null hypothesis was tested at three critical values as a basis to reject or not to reject the null hypothesis depending on the respective p values.

From the table it is evident that nine of the twelve relationships cannot reject the null hypothesis, implying that changes in most of the variables do not have an effect on the changes amongst each other, therefore do not “granger cause” each other.

However notable in variables whose changes ‘granger cause’ other variables include; GDP and the exchange rate have effects on FDI, and FDI has an effect on inflation as shown in Table 13 below.

Table13 – Granger causality tests

Pairwise Granger Causality Tests				
Date: 02/14/18 Time: 07:36				
Sample: 1990 2016				
Lags: 2				
Observations: 24				
Null Hypothesis:	F-Statistic	Probability	Rejection Key	Decision
DLGDP does not Granger Cause DLFDI	4.2717	0.0294	**	Reject null
DLFDI does not Granger Cause DLGDP	0.1826	0.8346		Cannot reject null
DINFL does not Granger Cause DLFDI	0.2941	0.7485		Cannot reject null
DLFDI does not Granger Cause DINFL	2.8039	0.0857	*	Reject null
DLEXCH does not Granger Cause DLFDI	3.4166	0.0540	*	Reject null
DLFDI does not Granger Cause DLEXCH	1.4017	0.2705		Cannot reject null
DLTRADE does not Granger Cause DLFDI	0.9113	0.4189		Cannot reject null
DLFDI does not Granger Cause DLTRADE	1.5076	0.2468		Cannot reject null
DLRESV does not Granger Cause DLFDI	1.6672	0.2152		Cannot reject null
DLFDI does not Granger Cause DLRESV	2.1121	0.1485		Cannot reject null
DRINDEX does not Granger Cause DLFDI	2.2137	0.1367		Cannot reject null
DLFDI does not Granger Cause DRINDEX	1.6725	0.2143		Cannot reject null
Key				
Note: ***, ** and * denotes rejection of the null hypotheses at 1%, 5% and 10% critical values respectively.				

Source: Author’s computations

4.9 Discussion of results

The results indicate that the key determinants of FDI for India in terms of significance and impact in the long run are the FDI restrictiveness and the exchange rate. They both have a negative relationship with FDI as expected.

The result for the exchange rate confirms the findings by Hussaini (2010), Shashank (2012) and more recently by Pattayat (2016). A foreign investor typically expects to repatriate returns in the form of dividends in the long term and is inherently exposed to currency risks and time value of money hence the volatility of the exchange rate is expected to have material impact

on FDI inflows. A weaker local currency is an inhibitor to FDI where a stronger local currency will mean reported earnings from the host country will be favourable. The aversion of foreign investors to weak currencies explain the negative relationship.

The FDI restrictive index, being a proxy indicator for progress in improvement of the policy framework and removal of inhibitors has consistently shown the most material impact in the short and long run relationship as a determinant of FDI. The result captures the essence and motive of having an integrated approach of policy review framework and quantitative statistical analysis to determinants. It reflects the importance of both qualitative and quantitative approaches as it has reflected that economic policies to manage exchange rates are as important in ensuring the process and procedure of administering FDI is equally if not more important given its material impact in the model both in the short and long run.

Foreign reserves resulted in a positive relationship in the long run with FDI as expected and consistent with Narayan (2014) but showed a weak and insignificant impact on the relationship. This could reflect the confidence foreign investors now have in the economy as reserves are expected to provide comfort that in the event of disinvestment the foreign currency will be available. Given that the balance of foreign reserves has been building in real terms over time its materiality on attracting FDI weakens as confidence increases which probably explains its negative relationship in the short run.

Inflation had an unexpected positive relationship with FDI both in the short and long run although at a weak and insignificant level. Over the 27 year period under review India has mainly enjoyed periods of low and stable single digit inflation rendering its impact weak. Probably inflation will have a more material impact on more liquid portfolio funds as compared to greenfield FDI which has a longer investment yield. However, whilst investment horizon may be longer inflation is a consideration given time value of money, but its stability probably explains its weak and insignificant impact. GDP and trade unexpectedly resulted in negative signs in the model, although with weak and insignificant impact. The two generally reflect the market size of an economy and Chaitanya (2004) and Azam & Lukman (2010) have found these to be significant and positive determinants of FDI in India.

The following chapter draws from the results of the study to draw conclusions and devise recommendations for future studies.

CHAPTER FIVE

RESEARCH CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

5.1 Introduction

The chapter concludes the study by providing a summary of the research and thereafter, drawing from the results and literature, proffers policy recommendations to Zimbabwean stakeholders which may be used as they institute reforms towards making the country a fertile host for FDI. Finally, avenues for further research in the investment promotion space are discussed.

5.2 Summary of the study

Akhtar (2013), in his study of inflows of FDI to India, pre and post the reform period, noted the significant role FDI has contributed towards the development and growth of the Indian economy. Of interest he notes how liberalisation has had a huge positive impact on FDI inflows, growing by more than 165 times since the 1991 reforms. Beyond the stellar growth in the inflows he identifies how FDI has had a multidimensional role in the overall development of the country, with far reaching consequences in technology upgrades, employment creation and efficiency in domestic industrial development which ultimately culminated in the GDP growing four-fold over their study review period.

It is this narrative which not only caught the author's attention, but a narrative the author desires Zimbabwe to replicate using the Indian template as Zimbabwe seeks equitable socio-economic growth. This led to the research problem:

What are the determinants of FDI for India and which key policies have led to the growth of FDI in India?

The study presented a comprehensive literature review which covered India and Zimbabwe and analysed the quantitative economic variables used by scholars and qualitative reviews conducted of India's policy framework. The policy review guided the choice of six variables which were a blend of economic factors and an index which captures the very essence of the policy framework. GDP, the exchange rate, inflation, foreign reserves, trade and the FDI restrictiveness index were the regressors of the study.

By employing a regression model on data sourced from the World Bank and OECD, over a 27 year review period from 1990 to 2016, the study found empirical evidence that in the short run the variables determine 88% of the FDI inflows, outcome with GDP, the exchange rate and the restrictiveness index being the significant and material. However in the long run only the exchange rate and the index are significant.

The results on the exchange rate are consistent with Hussaini (2010) and Shashank (2012). However the findings on the index are unique as no previous scholars had applied the index.

These results give rise to a number of recommendations detailed below.

5.3 Policy recommendations

- 1.** Zimbabwe should maintain its dollarisation policy until fundamental economic policies have been addressed. From the study, the exchange rate was found to be a significant determinant negatively related to FDI, confirming that FDI favours strong local currencies as opposed to weakening currencies. By dollarisation, Zimbabwe has done away with exchange rate volatility which was a huge problem before dollarisation as shown in Figure 3. The recommendation is supported by Bayai and Nyangara (2013) who studied FDI inflows into Zimbabwe post dollarisation and noted that inflows improved in the dollarization era as it ushered in low interest rates, inflation and a 1:1 default exchange rate to the dollar.
- 2.** The exchange rate is a function of the trade balance, and Zimbabwe has a trade deficit, it is recommended that policies which lead to export driven industries and services are crafted so as to not exert pressure on the exchange rate. This will provide stability when Zimbabwe eventually introduces its own local unit. Not only is this good for the exchange rate, but it will also contribute towards building foreign reserves which the study found to be a significant determinant in the short-run. The recommendation is consistent with the findings of Jayakumar (2014). Pursuant to this, tax incentives can be given to exporting companies, especially capital allowances in capital intensive industries like mining.

3. It is important for policy makers to understand the attributes of the FDI restrictiveness index as the study has shown that this is the most important variable with the most material impact in the short and long-run towards attracting FDI. These include the following:

A key factor in the index is equity ownership restrictions, the more liberal the better a host is able to attract FDI. Whilst India before the reforms had very restrictive laws on foreign ownership, these were gradually removed with the reforms. Zimbabwe finds itself in a similar situation regarding this issue, however it is encouraging to note that the new dispensation is eager to revise the equity limits but the law has not yet been revised or amended, and it is recommended that this issue be rectified with haste. From the initial proposals on reviewing the equity laws the authorities intend to scrap the 51% local ownership except for platinum and diamonds. With regards to these exceptions, the former may be ill-advised given that platinum is very capital intensive, especially when it comes to constructing platinum refineries. However, for diamonds it is understandable given that the known diamonds are alluvial in nature and cheaper to mine unlike platinum which involves expensive underground mining. Given the situation, it is recommended the equity ownerships are reviewed in consultation with business stakeholders and are gazetted into law with speed.

Another key factor in the index is the screening and approval mechanisms. It is recommended that policies be devised which consider 'ease of doing business' tenets so as to ensure screening, approval and turnaround time to establish businesses are quickened by removing bureaucratic bottlenecks. India devised fast track routes which are very investor friendly as the policy review has shown.

The other factor in the index is to do with property rights and land ownership. The new government has indicated its intention to review land ownership laws in order to strengthen security of title in the agricultural sector. The removal of title deeds and replacement with leases has compromised the ability of farmers to borrow funds from banks to fund operations. This has affected the country's agricultural productivity, an area where FDI is needed. Addressing this issue will make land more transferrable and

make it easier for land to be securitised. Policies and laws towards this cause need to be crafted to ensure FDI is attracted towards this sector.

Zimbabwe needs to identify inhibitors and discriminatory measures affecting foreign investors, including market access restrictions, disinvestment and dividend remittance policies. Due to foreign currency shortages at times dividend remittances are not given priority and often take a long time to be remitted to investors.

4. The Investing across Borders (IAB) (2010) details an 87 cross-country study by analysing laws, regulations, and practices affecting FDI. Some of their major findings include, which corroborate the tenets of the restrictiveness index include:

Restrictive and obsolete laws and regulations impede FDI – Zimbabwe promulgated a new constitution in 2013 and to date laws have not yet been synchronised with the new constitution causing unnecessary legal battles which have hamstrung the FDI attraction efforts - it is recommended that the new government actions this with speed.

Red tape and poor implementation of laws create further barriers to FDI – it is recommended that the authorities expedite a court which specifically attends to business matters to ensure laws are implemented and the rights of businesses local and foreign are not disenfranchised.

5.4 Avenues for further research

In as much as the study attempted to capture most of the determinants of India, there is still an opportunity to further explore this area by considering the following:

1. Similar studies can integrate more qualitative factors into the quantitative analysis of the determinants of FDI. In particular a concern for foreign investors is the strength of institutions and governance, which were also identified as inhibitors by Al-Sadig, A. (2009). These could be incorporated by including indices which capture governance, corruption, institutional quality, ease of doing business, rule of law, peace and security and democracy, among other issues. Examples to consider would be the Worldwide

Governance Indicators (WGI) index, Corruption perception index or the Kearney FDI Confidence index.

2. Another avenue for research would be a panel data analysis which includes a number of countries so as to seek to understand determinants and policy framework behind their success. This would broaden the scope when devising recommendations for Zimbabwe.
3. Integrating the quantitative approach used by employing qualitative approaches such as questionnaires with central bankers, potential investors, staff at ZIA, the Ministry of Finance or the Indian embassy so as to gain insight which could broaden the quality and horizon of the study.
4. For robustness future studies may also consider a sectoral approach to the analysis, this would give recommendations which are relevant per sector.

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APPENDICES

Appendix A – Data

Data from database: Source - World Development Indicators							
Country Name	India						
Series Name	FDI (Real)	GDP (Real)	Inflation	Exchange rate	Trade(Real)	Reserves(Real)	RINDEX
1990 [YR1990]	10,347,528	13,845,259,266	8.9712	17.5035	2,170,178,150	246,455,833.91	0.6300
1991 [YR1991]	2,823,294	10,231,689,482	13.8702	22.7424	1,756,942,342	292,396,817.87	0.6230
1992 [YR1992]	9,496,566	9,766,217,099	11.7878	25.9181	1,819,722,446	327,600,867.77	0.5830
1993 [YR1993]	17,771,335	8,898,110,460	6.3620	30.4933	1,767,539,643	473,840,696.02	0.5740
1994 [YR1994]	28,514,933	9,460,622,912	10.2115	31.3737	1,920,084,117	709,625,407.18	0.5540
1995 [YR1995]	56,978,124	9,448,632,769	10.2249	32.4271	2,184,080,332	607,747,266.30	0.5380
1996 [YR1996]	59,173,092	9,455,179,818	8.9771	35.4332	2,095,947,405	607,067,625.74	0.5230
1997 [YR1997]	81,420,231	9,338,912,859	7.1643	36.3133	2,135,302,973	646,052,667.05	0.4800
1998 [YR1998]	52,958,026	8,356,431,642	13.2308	41.2594	2,001,907,251	616,013,701.06	0.4600
1999 [YR1999]	41,645,182	8,693,558,837	4.6698	43.0554	2,180,759,295	691,438,409.02	0.4530
2000 [YR2000]	66,177,248	8,532,854,133	4.0094	44.9416	2,320,283,176	758,094,640.36	0.4450
2001 [YR2001]	91,317,747	8,529,105,204	3.6848	47.1864	2,241,009,138	873,465,344.94	0.4350
2002 [YR2002]	88,855,193	8,666,701,809	4.3922	48.6103	2,585,132,508	1,221,495,679.37	0.4280
2003 [YR2003]	60,505,002	9,852,938,808	3.8059	46.5833	3,046,897,538	1,704,683,926.36	0.4180
2004 [YR2004]	85,978,322	11,080,363,256	3.7672	45.3165	4,200,595,078	2,084,527,893.64	0.3600
2005 [YR2005]	110,430,025	12,288,067,419	4.2464	44.1000	5,220,623,111	2,093,705,682.09	0.3200
2006 [YR2006]	286,647,624	13,171,150,595	6.1455	45.3070	6,136,706,260	2,548,167,373.95	0.2820
2007 [YR2007]	339,426,471	16,160,350,250	6.3700	41.3485	7,459,402,349	3,721,218,215.64	0.2800
2008 [YR2008]	538,993,700	14,738,883,443	8.3518	43.5052	7,924,120,824	3,196,524,434.96	0.2810
2009 [YR2009]	398,483,968	14,827,111,472	10.8774	48.4053	6,935,681,806	3,188,229,026.15	0.2820
2010 [YR2010]	273,968,850	16,566,170,731	11.9923	45.7258	8,231,546,560	2,994,637,260.04	0.2830
2011 [YR2011]	335,287,314	16,747,069,748	8.8578	46.6705	9,315,369,982	2,744,308,276.51	0.2840
2012 [YR2012]	201,652,592	15,358,924,351	9.3124	53.4372	8,569,315,513	2,524,686,596.10	0.2690
2013 [YR2013]	213,321,359	14,068,768,720	10.9076	58.5978	7,575,206,393	2,258,708,591.41	0.2530
2014 [YR2014]	245,659,288	14,461,013,412	6.6495	61.0295	7,087,515,572	2,309,627,929.08	0.2520
2015 [YR2015]	298,052,215	14,153,515,160	4.9070	64.1519	5,972,516,403	2,392,836,697.56	0.2370
2016 [YR2016]	286,915,791	14,609,507,098	4.9414	67.1953	5,816,185,925	2,334,213,793.21	0.2120