



# **FDI Trajectory in Pre and Post Global Financial and Eurozone Crisis and Policy Response:**

**Focusing on the MEFMI Region from 2000 to 2011**

An Empirical Study Prepared by:

***Macroeconomic Management Department***

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## PREFACE AND ACKNOWLEDGMENT

This paper analyses the impact of the global financial and economic crisis (GFC) on Foreign Direct Investment (FDI)<sup>1</sup> inflows in the MEFMI<sup>2</sup> region for the period 2000 to 2011. It further traces the post-GFC FDI recovery trajectory in selected MEFMI countries. The likely effects and initial experiences on the impact of the Eurozone debt crisis have also been extensively explored. The measures and policy responses that governments, institutions and multilateral enterprises have undertaken or are likely to undertake to minimise the adverse effects of the global financial crisis and the sovereign debt crisis on the performance of the domestic economy, with specific focus on stimulating FDI are analysed.

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<sup>1</sup> Distinguishing from other forms of international capital, literatures define FDI as a composite bundle of resilient shareholders' equity capital (of 10% or more), retained earnings and loans from affiliated enterprises (IMF's Balance of Payments Manual 6<sup>th</sup> Edition).

<sup>2</sup> MEFMI member states are Angola, Botswana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

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## ABBREVIATIONS AND ACRONYMS

AGOA	African Growth and Opportunity Act
BOM	Bank of Mozambique
BOT	Bank of Tanzania
BOU	Bank of Uganda
CBL	Central Bank of Lesotho
CPI	Investment Promotion Centre (Centro de Promocao de Investimentos)
FDI	Foreign Direct Investment
FPC	Foreign Private Capital
GFC	Global Financial Crisis
GDP	Gross Domestic Product
IMF	International Monetary Fund
IRF	Impulse Response Functions
LNDC	Lesotho National Development Cooperation
M&As	Mergers and Acquisitions
MEFMI	Macroeconomic and Financial Management Institute of Eastern and Southern Africa
NEPAD	The New Partnership for Africa's Development
OLS	Ordinary Least Squares
PCMS	MEFMI's Private Capital Monitoring System
SSA	Sub Saharan Africa
UNCTAD	United Nations Conference on Trade and Development
VAR	Vector Autoregressive
VECM	Vector Error Correction Model

## ABSTRACT

*This paper analyses the impact of the global financial and economic crisis (GFC) on foreign direct investment (FDI) inflows in the MEFMI region for the period 2000 to 2011. Using Vector Error Correction Model (VECM) the study traces long run post- GFC FDI recovery trajectory in selected MEFMI countries. Impulse Response Functions (IRF) has also been generated to explain the response to shocks on FDI and macroeconomic variables with strong bearing on foreign private capital flows. The likely effects and initial experiences on the impact of the Eurozone debt crisis have also been extensively explored. The study analyses the measures and policy responses undertaken by Governments, institutions and multilateral enterprises to minimise the adverse effects of the global financial crisis and the Eurozone sovereign debt crisis on the performance of the domestic economy, with specific focus on stimulating FDI.*

*The analysis is based on both quantitative and qualitative data. Macroeconomic variables and FDI quantitative data were mainly sourced from Central Banks. The findings from quantitative model have been verified and enriched with inputs from policy makers, institutions, multinational corporations and other stakeholders in the MEFMI region through a perceptions survey.*

*Quantitative econometric findings suggest that the Global Financial Crisis (GFC) exerted downturn effect on FDI trajectory in the MEFMI region. The adverse effect was indirect and through other key macroeconomic variables notably; collapse in external demand, decrease in world commodity prices, decline in Governments' official reserves and slowdown in real GDP. In the short run, GFC effects are temporary as FDI inflows are gradually converging to their pre-crisis path in the post crisis period. However, grave adverse effects on FDI are evident if GFC persists in the long run.*

*The quantitative empirical results largely corroborate the findings from the perceptions survey. Survey results suggest that 60% of the survey respondents rated the effects of the twin crises negative. The study establishes that turnover, profits and retained earnings were the most adversely affected variables. However the impact was asymmetric across the selected countries.*

*The perception results further revealed that Eurozone debt crisis disturbs recoveries in FDI inflows in the post GFC period especially in countries with strong links to the Euro Area. In the outlook period, its influence is projected to be significant if the ailing economies in the Euro Area continue to worsen.*

*Governments and companies were cautious of the emergence and potential devastating impact of the crises. Monetary and fiscal incentives, including tax waivers and rescue packages, were implemented by most countries in the region as interim measures. Some companies insulated themselves by exploring new markets for their products, exploring cheap sources of finances to reduce costs and reinvesting profits.*

Downsizing of labour force was also adopted, mainly among manufacturing enterprises. Closure and suspension of operations were minimal and most enterprises viewed these as measures of last resort.

Although short term crisis mitigation measures proved successful, going forward, the authors recommend long lasting pre-crisis solutions which hinge on the following:

- i. **Exploring new source markets for FDI and destination markets for goods and services.** The reduction in North-South FDI flows could be offset by a surge in South-South flows, with countries like China, India, South Africa, Russia and Brazil taking the lead. FDI flows from these new players, however, remain small relative to total FDI. Nevertheless, South-South FDI is expected to be more resilient when compared to flows from advanced countries, owing to the significant role of state-owned enterprises, limited reliance on international debt markets for financing, and continued efforts to gain access to energy and minerals assets from the MEFMI region,
- ii. **Enhancing competitiveness and reducing cost of production.** Enterprises should focus on production efficiency and Governments should buttress these efforts through investment in infrastructure such as power generation and roads, which are critical in facilitating current and future growth. Conducive domestic policy solutions could thus ease the painful adjustment related to the fall in FDI by increasing the growth benefits of each unit of the remaining FDI,
- iii. **Economic diversifications.** Efforts should be tailored towards diversifying the economies away from the overreliance on raw natural resources and commodities to minimise vulnerability to external shocks. Such policies include prudent fiscal management and consistent monetary policy supported by appropriate incentives to channel FDIs into export oriented manufacturing, services sectors and import substitution production activities,
- iv. **Building adequate buffers.** Governments should aim at building adequate buffers to cushion the likely effects of the Eurozone sovereign debt crisis. These include taking every opportunity to build foreign exchange reserves, strengthening stabilisation funds and social safety nets. Monetary policy response needs to strike an appropriate balance between fighting inflation and stimulating FDI inflows.
- v. **Investment policies that attract FDI in form of equity capital** which is more resilient to shocks compared to loans. The findings in this study indicate that during recessions in advanced countries, investors tend to reduce their FDI exposure in developing countries by calling back intercompany loans and increasing repatriated earnings, but the equity component generally remains more resilient. Pro-equity capital policies include tax waiver on capital goods and easing regulations on repatriation of shareholder's dividend. In addition, well-developed financial markets and strong banking systems can enhance foreign investors' confidence and motivate them to hold equity capital in FDI recipient countries.

## CHAPTER ONE: INTRODUCTION

### 1.1. Background

After being marginalised from the world capital markets for decades, Sub-Saharan Africa (SSA) countries, including the MEFMI region, have experienced a surge in capital inflows since the early 1990s. According to literature, the increase in inflows has been attributed to ample global liquidity (due to low international interest rates<sup>3</sup>), expanding South-South trade<sup>4</sup> and booming oil and commodity prices, coupled with better economic fundamentals and market oriented reforms in many SSA countries. The pattern also reflected a growing trend toward integration of world capital markets and globalization of investments (G. Verdier et al. - IMF 2010).

Foreign Direct Investment (FDI) which accounts for over 80% of the capital inflows in SSA increased to unprecedented levels in 2008, reaching USD 24.7 billion compared to less than USD 5.0 billion received in late 1980s. Consequently, the region registered immense benefits from FDI including enhanced regional productivity through technology transfers, increased trade volume, tax revenue, fixed capital formation, huge foreign reserve accumulation and poverty reduction notably through employment creation in the services, textiles and agricultural industries (**Figure 1.1**).

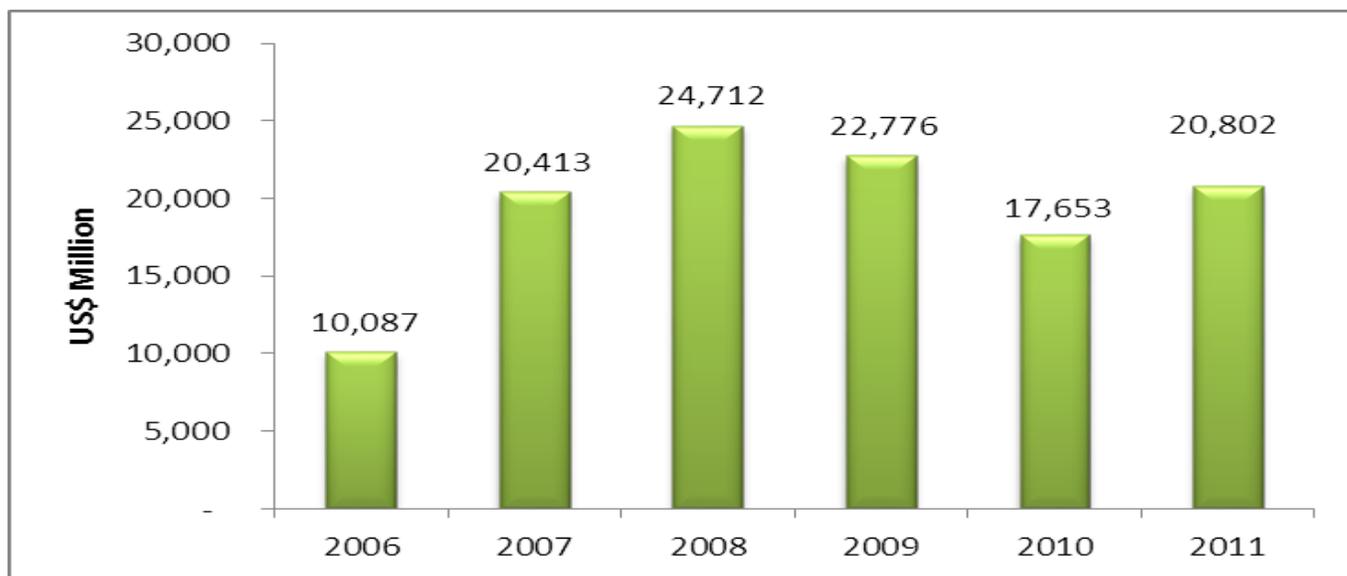
As SSA and MEFMI countries continued to bask in the exuberance of huge and seemingly stable capital inflows. The setting in of the Global Financial Crisis (GFC) in 2008-09 deflated regional prospects and led to a slowdown in economic activity. This was despite initial optimism that the crises would have limited spill-over effects in the region due to Africa's limited integration with the global financial system, economic resilience attributable to strong policy buffers built up in the 1990's and little exposure of African banks to the "toxic assets".

Of critical concern in this study is the substantial decline in FDI flows by 133% from USD 6.9 billion in 2008 to USD 2.9 billion in 2010 in the MEFMI region compared to a decline of 29% in the SSA from USD 24.7 billion to USD 17.6 billion over the same period. Most countries in the MEFMI region continued to experience deteriorating FDI inflows throughout 2010 and 2011 while most countries in SSA registered FDI recovery in the second half of 2010, driven by global economic recovery and regional pull factors such as rapid economic growth, increased investment opportunities (discovery of oil, gas and coal), improved creditworthiness, high expected profits and better risk diversification. (**Figure 1.1 & 1.2**).

<sup>3</sup> *The value of cross-border syndicated bank borrowing and international bond issuance for the purposes of carrying out mergers and acquisitions, an important mode of FDI entry in developing countries, rose almost 10-fold between 2003 and 2007. In addition, almost 30% of global mergers and acquisitions deals were carried out by high income investment banks, hedge funds, and other private equity firms (UNCTAD, 2009).*

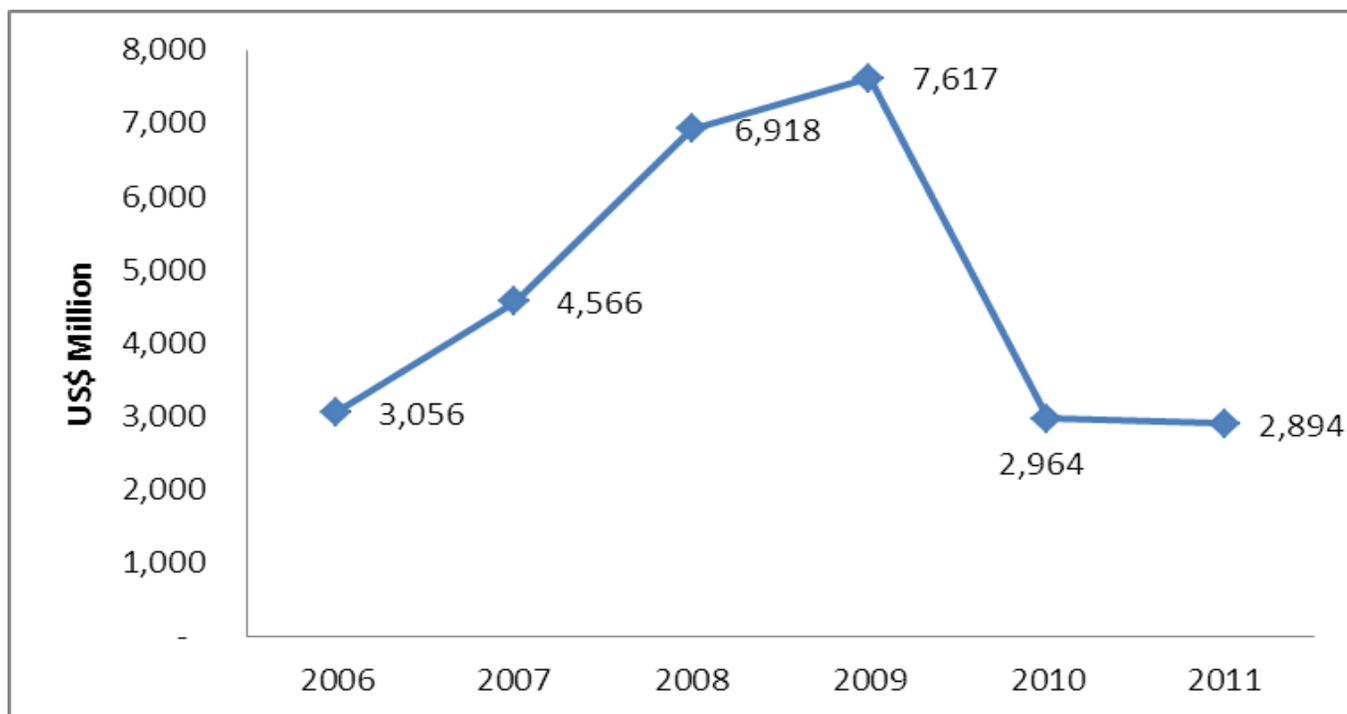
<sup>4</sup> *A study by Foster et al. (2008) points out that both bilateral trade and Chinese FDI in Africa increased about fourfold between 2001 and 2005. Davis (2009), reports that outward FDI from China nearly doubled in 2008.*

**Figure 1.1: FDI Inflows to Sub-Saharan Africa**



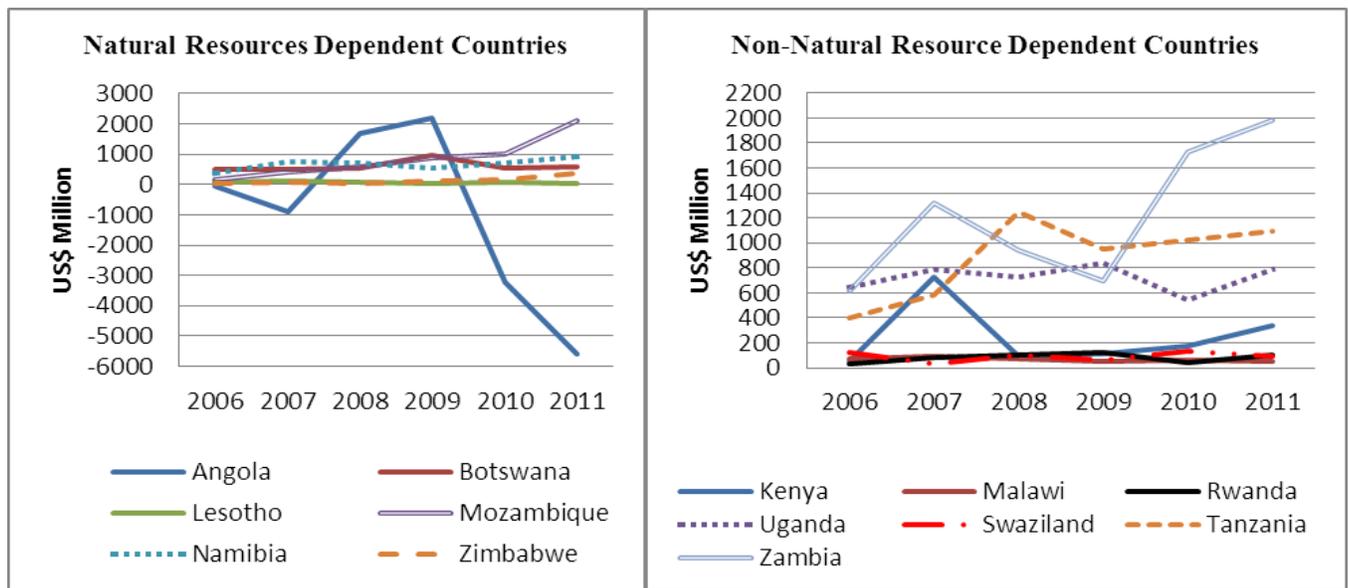
Source: UNCTAD World Investment Report July 2012

**Figure 1.2: FDI Inflows to the MEFMI Region**



Source: UNCTAD World Investment Report July 2012

Feeble recoveries in recorded FDI inflows in the MEFMI region were evident in most resource rich countries especially Angola, Botswana, Lesotho, Namibia and Zimbabwe (**Figure 1.3**).

**Figure 1.3: FDI flows to MEFMI Region**

Source: UNCTAD World Investment Report July 2012

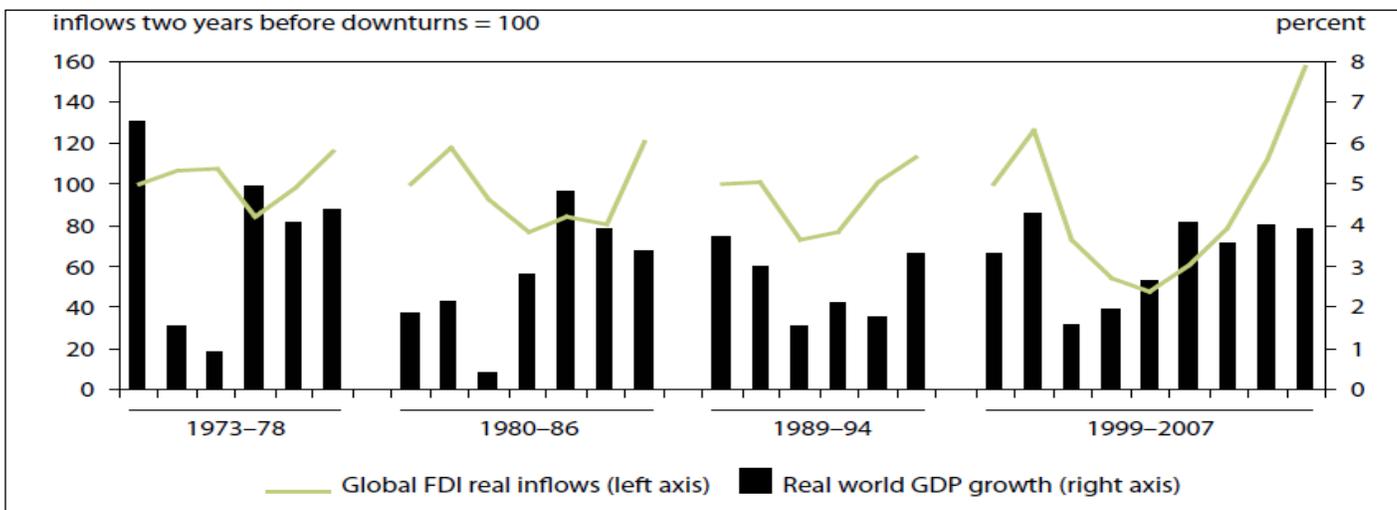
Despite the weak trend in FDI inflows in the pre-global financial crisis period in the MEFMI region, the world economy has again been exposed to potential meltdown arising from the Eurozone debt crisis (Massa et al., 2011). The question that therefore arises is 'what are the implications for the MEFMI region of a potential global meltdown arising from the Eurozone debt crises?'

## 1.2. Problem Statement

According to UNCTAD Report of 2012, FDI flows to the MEFMI region seem to have been affected by the global financial crisis as evidenced by the substantial reduction in inflows in 2009 and 2011 although there is no documented empirical research at the regional level to justify this data. The report asserts that some foreign investors closed down and reduced the size of their investments to the region due to the global credit crunch. Furthermore, collapse in the global commodity prices also resulted in declining exports, profitability, returns on equity (ROE), accumulation arrears and contraction of companies.

Using UNCTAD data, Launge et al. (2011) analysed FDI responses to four global outturns and revealed that the recent GFC had U-shaped FDI recovery trajectory (**Figure 1.4**). As regards the MEFMI region, such scenario is still to be established and verified, especially after the GFC.

**Figure 1.4: FDI Responses to Four Global Outturns**



**Note:** FDI figures were initially converted into constant prices using the USD GDP deflator

**Source:** Launge Skovgaard Poulsen and Gary Clyde Hufbaver (2011).

Massa (2011) highlights that the global economy is once again on the brink of meltdown arising from the Eurozone debt crises. According to the World Investment Report, 2011, the Eurozone crisis could impact on developing countries through various channels (**Table 1.1**).

**Table 1.1: Vulnerability and Anticipated Channels of Eurozone Spill to Selected MEFMI Countries**

Selected MEFMI Countries	Dependence on euro zone trade	Fiscal space in 2010 compared to 2007	Fiscal balance (surplus/deficit)	Remittances dependence	FDI dependence	Aid dependence	Dependence on cross-border bank lending from European banks
Kenya	high	worsened	deficit	medium	low	medium	high
Malawi	high	improved	surplus	n.a.	low	high	low
Mozambique	high	worsened	deficit	low	medium	high	high
Rwanda	high	improved	surplus	low	medium	high	low
Tanzania	high	worsened	deficit	low	low	medium	medium
Uganda	high	worsened	deficit	medium	medium	medium	medium
Zambia	medium	worsened	deficit	low	medium	low	medium
Zimbabwe	medium	improved	deficit	n.a.	low	high	high

**Notes:** Low <3%; Medium =>3 %-< 10%; High =>10%. Trade dependence: exports to euro zone/total exports to world (%). Dependence on remittances: total remittance inflows/GDP (%). FDI dependence: total FDI inflows/GDP (%). Aid dependence: total DAC countries' aid/GDP (%). Dependence on cross-border bank lending from European countries: foreign claims from European banks/GDP (%). Fiscal space: fiscal balance/GDP (%).

**Source:** World Investment Report, 2011, and Massa, Keane and Kennan (2012). *The Eurozone Crisis and Developing Countries*, Working Paper 345 at Overseas Development Institute (ODI)-London.

The policy interventions adopted to counter the effects of the crisis remain unclear at regional level. Establishing how the MEFMI region has prepared and insulated itself from these shocks is a virgin area for research and requires adequate research attention.

### 1.3. Objectives of the Study

The study examines and evaluates the behaviour and response of FDI in the MEFMI region, including its components (equity and debt) to the global financial crisis. It further assesses responses to GFC by Multinational Enterprises (MNEs) and Governments including the efficacy, effectiveness and robustness of the various policy measures adopted at country and regional level to mitigate the debilitating and haemorrhaging effects of the crisis on FDI.

In addition, the study accords attention towards understanding the likely effects of the global turbulences occasioned by the Eurozone Debt Crisis, whose emergences harboured the potency to weaken the recovery momentum characterising the FDI trajectory since the onset of GFC.

#### **1.4. Justification of the Study**

There has been a plethora of work on global financial crises and its related consequences on FDI. Nevertheless this topic remains of great concern in current policy setting and of relevance to the region due to the following:-

- i Sensitive and cyclical nature of FDI, mainly propagated by global shocks (notably economic recession in FDI source countries, fluctuations in international interest rates, commodity prices and investment return), has stimulated debate among scholars, academics and policy makers on the resilience of FDI to shocks. MEFMI is keen on making a contribution to this debate with a view of influencing the policy measures that its member states could adopt to mitigate the intended and unintended consequences of the global shocks;
- ii Crises on the MEFMI region are poignant cases because of the present fragility of MEFMI member country's' economies. It is evident that global economic risks and shocks continue to weigh down on countries development initiatives, threatening to reverse gains in poverty reduction and human development. An urgent appeal for preemptive measures and knowledge of the best policy mix cannot be overemphasized; and
- iii The MEFMI region is not immune to global shocks as it heavily depends on the global economy for its limited range of raw natural resources and cash crops. Furthermore, its proximity and the strong link with South Africa, which is highly linked to the global economy, explain how vulnerable MEFMI countries are to global shocks of any magnitude.

The contributions made by this study to the current body of literature include the use of latest data from least income countries (resource and non-resource rich) and assessment of the likely consequences of the Eurozone crisis on FDI inflows to MEFMI region.

#### **1.5. Organization of the Paper**

The paper is organised into five chapters including the introduction. Chapter Two provides an overview of the literature focusing on the global financial and Eurozone sovereign debt crises. Chapter Three derives methodology (basic model and questionnaire description) and data sources. Chapter Four presents a review of the main empirical findings and discusses policy implications. Chapter Five draws the conclusion, lessons learnt and recommendations of the study.

## CHAPTER TWO: REVIEW OF LITERATURE

### 2.1. Global Trends

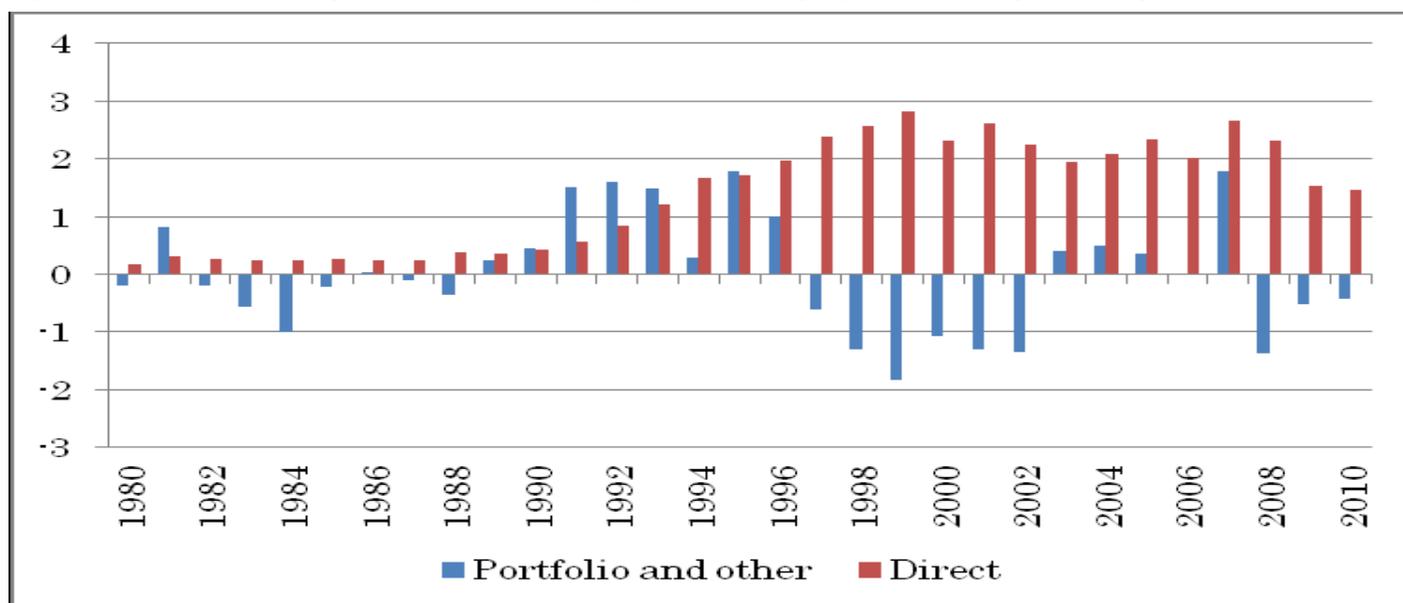
World Bank (WB) statistics show that global economic activity retreated sharply in response to the debilitating effects of the financial and economic crisis, which swamped the world economy in 2008. This turmoil began in the United States of America (USA) and the United Kingdom (UK) following the demise of the sub-prime mortgages market in the USA that triggered the collapse of the housing market. This then affected global credit markets, global trade and foreign direct investment (FDI). The crisis led to a sharp reduction in world trade and rapid decline in commodity prices (Karshenas, 2010). In addition, it had discouraging impact on FDI because of diminishing corporate profits, plummeting stock prices, reduced capacity to finance on account of tighter credit conditions and increasing uncertainty in macro-economic performance (Urata, 2009; Beule and Bulcke, 2009). Evidently, the global net private capital flows fell from USD 1.2 trillion in 2003 to US\$ 707 billion in 2008 (World Bank, 2009).

Although the global economy has seen a reduction in all categories of capital flows including overseas development assistance (ODA), FDI and remittances, the impact of the crises varied. The scale and severity of the crisis varied across countries and regions (UNCTAD, 2009). Broadman (2009) notes that the Eastern Europe and the countries of the former Soviet Union were the hardest hit as they were running large current account deficits in the period leading to the crisis. Other regions and countries of Latin America and East Asia including China were affected differently.

### 2.2. Impact of Global Financial Crisis on FDI

#### 2.2.1. Rationale for Establishing Causality between FDI and the Crises

The causality between FDI and global crises stems from the fact that FDI is more resilient to shocks relative to portfolio and other forms of capital flows (**Figure 2.1**). Loungani and Razin (2001) tested this fact and found that FDI proved resilient during the Asian Financial Crises and was remarkably stable in the East Asian countries during the crisis, as was the case during the Mexican crisis of 1994-95 and the Latin American debt crisis of the 1980s. Graham and Wada (2000) analysed the crisis of 1995 and the response of FDI and foreign-controlled enterprises in Mexico. They found that FDI from USA, exhibited stability.

**Figure 2.1: Net Private Capital Inflows to Emerging and Developing Economies (% of GDP)**

Source: IMF, UNCTAD and World Economic Outlook Database, 2011

FDI is policy responsive and its flows can be a result of both push and pull factors. Notably, FDI can be triggered by an increase in domestic demand and/or supply brought about by pull parameters such as economic and governance reforms, positive fiscal impulses, rising incomes, a favourable macroeconomic environment, favourable terms of trade, and increases in production efficiency in the recipient economy. The push factors include parameters such as low interest rates in source economies, abundant liquidity, slow growth and the lack of attractive domestic investment opportunity as well as the need for global risk diversification. Furthermore, FDI has a strong linkage to the recipient economy as its surge can be accompanied by resurgence in total domestic investment and savings as well as an improvement in economic growth and employment.

### 2.2.2. Pattern, Scale and Severity of the Crises: Learning from Past Experiences

Generally, there is no doubt on the adverse impact of crises on foreign investment flows, although the impact, scale and severity vary across sectors, countries and regions (Carp, 2011 and UNCTAD, 2011). In a study on the impact of the Asian financial crisis on FDI on Vietnam, Thu (1998) found that many licenced projects in the country were delayed and the amount of licenses granted between 1997 and 1998 fell compared with 1996 because of the financial crisis, resulting in a decline in foreign investment. Furthermore, many companies with foreign investment had to downsize because the markets narrowed.

In his analysis of Indonesian investment climate and FDI after the Asian financial crisis Kian Wie (2006) noted that after the crisis, domestic investment and FDI dramatically declined, largely as a result of the deteriorating investment climate, culminating in increased net FDI outflows from 1998 to 2003. He further noted that as a result of the notable decrease in Indonesia's investment climate's competitiveness, the economy

experienced capital flight and many Korean and Japanese firms relocated to countries with more favourable investment climates.

Studying the responsiveness of the financial crisis on Japanese FDI, Urata (1999) found that Japanese FDI declined in many Asian economies in the latter half of 1997. Edgington and Hayter (2001) examined the extent to which the Asian financial crisis impacted the behaviour of Japanese FDI in the manufacturing sector. Their findings suggested that Japanese transnational corporations (TNCs) had not necessarily disinvested from Asia, but rather had implemented various policy measures to sustain their operations. In spite of later decline in FDI in the long term with the setting in of the crises, the policy measures adopted in the short run had managed to cushion and sustain the flows of Japanese FDI into Asia during the Asian financial crisis.

### **2.3. Impact of the Recent GFC on Sub Saharan Africa and MEFMI Region**

The impact of GFC on African and other low income countries was largely anticipated to be transmitted through:-

- i. Financial contagion and spill-overs in stock markets;
- ii. Contraction in global trade and related volatile and falling commodity prices and a shift in demand for African products particularly crude oil; and
- iii. Reallocation of financial flows to Africa through the curtailed and significant decline in FDI, foreign aid and migrant worker remittances.

There are varying opinions on the scale and severity of the GFC on Sub-Saharan Africa. According to Karshenas (2010), the direct impact of the GFC on the Less Developed Countries (LDCs) was less pronounced in the early stages due to their limited integration into the global financial markets. As the African Development Bank (2009) notes, African financial systems are dominated by the banking sector, and financial markets which are still underdeveloped and even non-existent in many countries, hence the limited impact of the crisis. Broadman, (2009) observed that countries in the Middle East and Africa were on average, more resilient and largely, insulated from the direct effects of the global financial crisis.

Arief et al (2010) points out that Sub-Saharan Africa was strongly affected by the global recession, despite initial optimism that the global financial crisis would have few spill over effects on the continent. This is in contrast to UNCTAD (2009) which seems to suggest minimal impact of the crises on the majority of the African economies. What is evident, however, is that the overall impact of the crisis varied across countries, depending on the extent of integration with the global economy and the structure of its domestic economy (Karshenas, 2009). Some countries such as Kenya, South Africa and Nigeria with relatively well developed and liquid financial systems, were hit harder as evidenced by a continuous downward trend in stocks prices

(Adamu, 2010). The Nigerian stock exchange all shares Index fell by 37% in 2008, the steepest decline in more than a decade and the sharpest decline in the world, while the Johannesburg Stock Exchange experienced a 25.7% loss in 2008 (Ali 2009).

Latest statistics from UNCTAD (2012) indicate that the decline in FDI was largely attributable to a slump in Global cross-border mergers and acquisitions (M&As), which are a major driver of FDI in SSA. Statistics shows that the value of world M&As collapsed to USD 1.7 billion in 2009 from USD 10.3 billion in 2006. In addition, the report points to weaker return prospects for foreign affiliates, which adversely impacted equity investments as well as reinvestment of earnings in Greenfield FDI projects.

#### **2.4. Eurozone Debt Crisis and Possible Consequences to MEFMI Region**

Literature identifies a number of possible threats and opportunities from the Eurozone debt crisis some of which include the following:

- i. Austerity measures enacted in several European economies in response to sovereign debt crisis have led to a considerable loss of purchasing power and weakened growth in the Eurozone which has still not fully recovered from the 2008–2009 global financial crisis (Kganyago, 2012 and Isabella, 2012). Europe being the major FDI source and a market for approximately one third of MEFMI countries' exports, a severe worsening in the growth prospects would result in a calamitous fall in the demand for exports from the region notably minerals, crude oil, flowers, fish and other primary products.
- ii. The weakening of the Euro currency is likely to reduce the profitability of exporting to the European market and increase competition from Europe in sectors ranging from agriculture to garments (including the AGOA market). Tourism may also be affected as lower Euro would reduce the purchasing power of European tourists.
- iii. On the positive side, European Central Bank has kept policy rates in Euro Area very low since the onset of the crisis. Similarly, low rates in Japan and United States, combined with low growth in Europe may encourage capital flows into emerging markets, Africa and the MEFMI region (IMF 2012).

## CHAPTER THREE: METHODOLOGY

### 3.1. Data Sources

The study employs econometric analysis on panel data on FDI stock and macroeconomic fundamentals from five selected MEFMI countries namely; Lesotho, Mozambique, Tanzania, Uganda and Zambia for the period 2000 to 2011. Macroeconomic variables used in the analysis are described below:

- i Real GDP (annual % growth): this measures the domestic market size. Market-seeking FDI is likely to benefit from a large market therefore a positive relationship with FDI inflows is expected,
- ii Gross official reserves (GOR): this measures the country's import cover. This is critical in improving the investors' confidence and it is expected to have positive relationship with FDI,
- iii Inflation (INF): the variable measures economic stability and investment risk and is expected to be inversely related to FDI,
- iv Commodity prices (COMP): this measures profitability and is expected to have positive relation with FDI,
- v Nominal exchange rate (EXR): The variable represents the investment climate. Exchange rate depreciation will erode profitability of FDI, increase the cost of production and introduce distortions in the host economy. As a result, a negative relationship is hypothesized between the exchange rate and FDI,
- vi Real GDP of major trading partners of each country in the sample (a proxy for external demand-EXTDEM), and
- vii GFC dummy (DUMMY09); included to capture the impact of the global financial crisis.

These variables are critical in assessing the impact of the crises on macroeconomic performance and have a strong bearing on FDI Stock (*FDIS*) and its key components: Equity (*FDISE*) and Borrowing (*FDISOC*)

In addition to the quantitative analysis, the study is augmented with a qualitative perceptions survey. The qualitative perceptions survey was administered to executives of Multinational Corporations (MNCs), policy makers and key stakeholder institutions in the MEFMI region. The key stakeholder institutions include Central Banks, Investment Promotion Agencies, Bureaus of Statistics, Ministries of Finance and Planning, Private Sector Bodies, Bankers Associations and Economic Research Institutions.

The perceptions survey captured the impact of the GFC and Eurozone debt crisis on company performance in terms of planned expansion projects, production, sales, profits and, access to and cost of international credit. Respondents were requested to list the measures taken to mitigate the effects of the crises. These included monetary and fiscal policy measures undertaken by the government authorities and, at enterprises level, downsizing of the labour force, suspension of operations, company closure, exploring new markets, increasing capacity utilisation, accumulation of arrears, increased borrowing, suspension of expansion

projects, and diversification of business lines. Respondents were also requested to indicate the likely effects of the Euro debt crisis on their performance and the measures they were likely to take in light of the worsening Eurozone crisis. In determining the future outlook, enterprises were asked to indicate whether they would expand, maintain current performance or scale down if both domestic and global economic conditions prevailing at the time of the survey continued and the expansion strategy they would employ.

### 3.2. Conceptual and Empirical Model

Literature shows that there are several motives in determining the FDI trajectory (Poelhekke et al 2010, Denisia 2010, Faeth 2009, Bevan and Estrin 2000, Dunning 1997). These include market seeking, resource seeking, efficiency seeking, strategic positioning, structural and macroeconomic conditions in recipient countries.

The empirical<sup>5</sup> model used in this study is based on the Hecksher-Ohlin theoretical framework (1933). According to this framework, FDI is motivated by higher profitability in foreign markets and the possibility to finance these investments at relatively low rates of interest in the host country. Ohlin also observed that availability of raw materials, flexible and business friendly trade policies as well as accessibility and availability of factors of production were the components influencing FDI inflows into a country. The model further capitalizes on the analysis by Poelhekke et al (2010), and Kok Recep et al (2009) and is adapted to meet regional specifications. The model in this paper differs from that of Poelhekke et al (2010), and Kok Recep et al (2009) in that it is conducted on a more recent data set and it considers a sample of least-income countries, comprising resource rich and non-resource rich countries. The following baseline specification is examined using panel data:

$$FDI_{it} = f(x, z)_{it} \dots \dots \dots (1)$$

Where:

- *FDI = Dependent variable capturing data on Foreign Direct Investment to a host country. FDI components include equity capital, retained earnings and borrowing from related parties,*
- *x = a vector of explanatory variables which are expected to affect FDI stock. These include world commodity price, external demand, nominal exchange rates, Gross Domestic Product (GDP), inflation rate and governments' official reserves.*
- *z = a vector of dummy variables expected to affect FDI flows. This includes a dummy for the Global Financial Crisis which takes the value one in the years after a financial crisis and zero otherwise.*
- *t = year*
- *i = country*

<sup>5</sup> Empirical analysis and computations were done using E-Views version 7.2

The model (**Equation 1**) is log linearized to help in data smoothing, especially in the present model which includes both percentage and level form variables. To ascertain stationarity<sup>6</sup> of the data series, variables in the model were subjected to panel unit root tests (using Levin, Lin & Chu t-test, Phillips and Perron, and Augmented Dickey and Fuller methods). Differencing approach is employed to convert non-stationary into stationary series.

To establish relation between FDI (dependent variable) and associated deterministic variables, a Vector Autoregressive (VAR) model was applied as specified below:

$$y_t = A_1 y_{t-1} + \dots + A_p y_{t-p} + Bx_t + \xi_t \dots \dots \dots (2)$$

Where:

- $y_t$  is a vector of dependent variable,
- $x_t$  is a vector of deterministic variables and
- $\xi_t$  is a vector of error terms.

The study employs both the trace and eigenvalue test statistics to determine the number of cointegrating equations. The cointegrating equation captures the long-run relationship among variables; this is simply a search for a long-term statistical equilibrium between variables that tend to grow over time. The deviations from long-run equilibrium (short-run dynamics) of cointegrating series is modelled by a Vector-Error Correction Model (VECM)<sup>7</sup> of the following form:

$$\Delta y_t = \Pi y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta y_{t-i} + Bx_t + \xi_t \dots \dots \dots (3)$$

Estimates from **Equation 3** convey information about the long-run relationships among variables and in addition help to examine how variables converge to their equilibrium in the aftermath of a shock.

<sup>6</sup> Time series stationarity is the statistical characteristics of a series such that their mean and variance are constant over time (that is it is not a random walk/has no unit root).

<sup>7</sup> Based on Johansen Multivariate Cointegration analysis (Johansen 1988, and Johansen & Juselius 1990)

## CHAPTER 4: MAIN FINDINGS AND POLICY IMPLICATIONS

### 4.1. Overall Findings

Quantitative econometric findings in **Section 4.2** revealed that the global financial crisis exerted a downturn effect on the FDI trajectory. The adverse effect was largely indirect and through other key macroeconomic variables notably collapse in external demand, decline in Governments' official reserves and a short-run slide in commodity prices.

These empirical quantitative results corroborate with findings of the perceptions survey in **Section 4.3** which suggest that 60% of respondents rated negatively the impact of the recent global financial and economic crisis on company performance.

Perceptions survey further revealed that the Eurozone debt crisis disturbs recovery in the FDI inflows in the post GFC period and its influence is likely to be significant if the ailing economies in the Euro Area continue to worsen.

### 4.2. Detailed Econometric Findings

#### 4.2.1. Unit Root Tests

Unit root test is employed to examine the stability of the series. The results of stationarity tests are summarized in **Table 4.1**. The results show that the variables are stationary after first difference [I (1)].

**Table 4.1: Panel Unit Root Test Results: First Difference**

Variable	Levin, Lin & Chu $\tau^*$ (Prob)	Philips and Perron –Fisher Chi-square (Prob)	Augmented Dick Fuller –Fisher Chi-square (Prob)
DLFDIS	0.001	0.000	0.007
DLFDISE	0.001	0.000	0.011
DLFDISOC	0.000	0.001	0.000
DLGDP	0.006	0.000	0.114
DLGOR	0.000	0.000	0.019
DLINF	0.000	0.000	0.000
DLCOMP	0.048	0.003	0.161
DLEXR	0.000	0.000	0.000
DLEXTDEM	0.000	0.000	0.001

Note: If p-value<0.05 indicates that the variable is stationary

Source: Authors' Computation

## 4.2.2. Co-integration Tests

Two cointegration tests were applied in the FDI Stock model to examine the long-run relationships between variables used in the model. **Table 4.2** presents the results of cointegration tests while **Table 4.3** displays cointegrating equations.

**Table 4.2: Unrestricted Cointegration Rank Test**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.837	212.715	125.615	0.000
At most 1 *	0.767	136.424	95.753	0.000
At most 2 *	0.610	75.123	69.818	0.017
At most 3	0.379	35.549	47.856	0.419
At most 4	0.251	15.537	29.797	0.744
At most 5	0.077	3.388	15.494	0.946
At most 6	4.560	0.002	3.841	0.961
<b>Trace test indicates 3 cointegrating equation(s) at the 0.05 level</b>				
<b>* Cointegrating equations at the 0.05 level</b>				
<b>**MacKinnon-Haug-Michelis (1999) p-values</b>				

Source: Authors' Computation

At 5% level of significance, the results revealed existence of three cointegrating equations. This statistically confirms that the variables under study are co-integrated and that their interrelations provide the long-run equilibrium trajectory.

**Table 4.3: Cointegrating Equations**

Variable	CointEq1	CointEq2	CointEq3
LFDIS(-1)	1.000	-1.413	0.000
LGDP(-1)	-0.042	1.000	-0.704
LEXR(-1)	-0.675	0.531	1.000
LINF(-1)	-1.239	1.163	-0.612
LGOR(-1)	-1.131*	0.444*	-0.993*
LEXTDEM(-1)	-0.476*	0.252	0.879*
LCOMP(-1)	0.000	0.000	-1.715*
DUMMY09(-1)	6.696*	-3.642*	11.127*
C	10.164	-1.460	5.877

\*Denotes statistically significant 5% level.

Source: Authors' Computation.

### 4.2.3. Analysis of FDI Stock Co-integration Equation

The assessment on the long-run relationship between FDI stock and its deterministic variables is broadly presented in **Table 4.3** and significant variables are displayed in **Equation 4** below:-

$$LFDIS=10.1+1.1LGOR+0.5LEXTDEM-6.7DUMMY09+u..... (4)$$

The coefficients in Equation 4 measures elasticity and reveal existence of significant positive long-run relationships between FDI stock, external demand and official reserves. It is further observed that the global financial crisis caused significant adverse effect on the FDI. The detailed interpretation and implications of the findings are provided as follows:-

- The long-run trajectory of FDI stock is significantly and positively influenced by external demand (*LEXTDEM*) and Government gross official reserves (*LGOR*). This reflects the need for the MEFMI region to monitor market behavior prevailing in its major trading partners and ensure adequate import cover which confirmed to influence investors' confidence; and
- The global financial crisis (*DUMMY09*) negatively affected FDI stock and the variable was statistically significant at 5% level. This suggests that, FDIs in the MEFMI region were negatively affected by the crisis. The observed GFC downturn effect on FDI was largely through adverse effects of the crisis on other key macroeconomic variables with strong link to FDI notably Government official reserves and external demand.

### 4.2.4. Impulse Response on FDI Stock

Impulse response function is generated as an additional check on cointegration test's findings of the impact of shocks of various variables on FDI stock (excluding *DUMMY09*). The results of impulse response function are presented in **Figure 4.1** and summarized as follows:

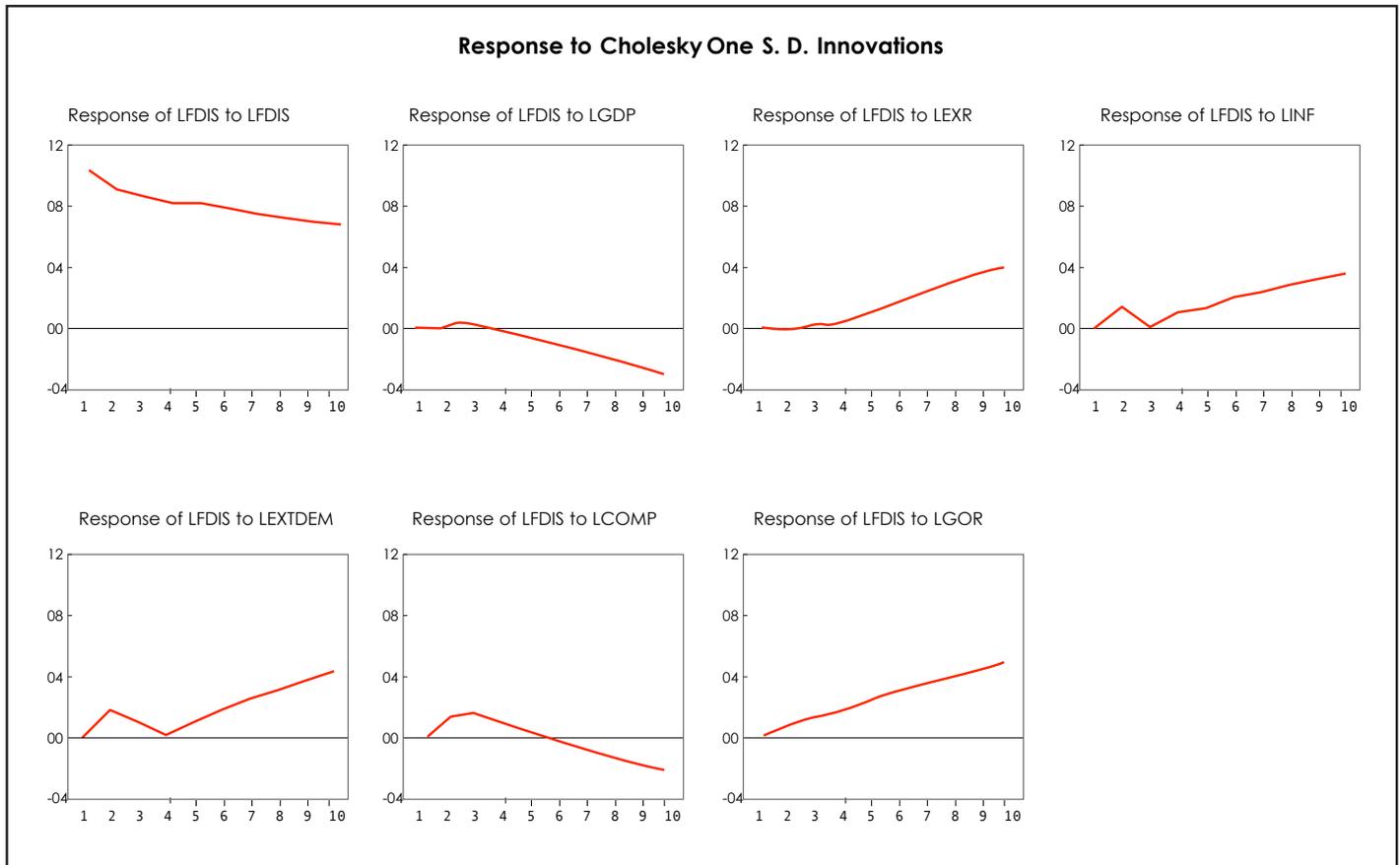
- Real GDP (*LGDP*) which represents domestic market size had short-run positive influence on FDI Stock. This is evidenced by long-run deteriorations in FDI stock despite an imposed positive shock on GDP. Small size<sup>8</sup> of domestic market in the countries under study partly explains this observation and it therefore underscores the importance of other factors such as natural resources and cost effectiveness in attracting FDI to the region,
- A unit appreciation in the exchange rate (*LEXR*) leads to short-term decline in FDI, followed by a persistent long-run stabilization. Given limited domestic expenditure and a predominant focus on the export market by most FDI enterprises, depreciation in the local currency is highly favourable. This

<sup>8</sup> This finding is consistent with the results of Geneviève Verdier et al. (IMF 2010) who find that the domestic markets in SSA are too small to have significant influence on FDI inflows.

suggests the need for countries in the MEFMI region to ensure they maintain stable and competitive exchange rates to spur and sustain FDI inflows,

- As observed in **Table 4.3**, relationship between inflation (*LINF*) and FDI remains contradicting, perhaps due to the fact that the largest component of FDI investment in sampled countries is for the export market. In addition, most FDI enterprises import intermediate inputs, and as such, domestic prices have a marginal impact on their investment decisions.

**Figure 4.1: Impulse Response Function of FDI Stock<sup>9</sup>**



- Increase in external demand (*LEXTDEM*) positively affects FDI trajectory but with some lags and the increase is sustained in the long run,
- A positive shock in commodity prices (*LCOMP*) results in a short term increase in FDI stock which, in the long run, FDI steadily declines. This reveals a positive transitory effect of commodity prices on the FDI trajectory, and
- Increase in Government official reserves (*LGOR*) culminates into long-run persistent increase in FDI. This suggests increasing investors' confidence due to resilient import cover.

<sup>9</sup> In generating impulse response functions the *Dummy09* was excluded to ensure robustness of results.

#### 4.2.5. Variance Decomposition on FDI Stock

**Table 4.4** summarizes the results on the variance decomposition of FDI stock. The results show that over 80% of variations in FDI stock in the first eight years of observations were largely explained by FDI itself and investors' expectations. Significant effects of other explanatory variables (mainly Government official reserves) were felt from 9<sup>th</sup> year onward. In the 10<sup>th</sup> year, the variation in FDI stock was influenced by other variables up to 29%; gross official reserves (10.0%), external demand (6.4%), domestic inflation (5.0%), exchange rates (4.7%), and real GDP (2.7%). This reflects that the FDI trajectory in the MEFMI region sustained resilience for the first 9 years despite volatility in other macroeconomic variables.

**Table 4.4: Variance Decomposition on FDI Stock**

Period	S.E.	LFDIS	LGDP	LEXR	LINF	LGOR	LEXTDEM	LCOMP
1	0.102	100.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.138	95.707	0.000	0.026	1.019	0.267	1.736	1.242
3	0.164	94.548	0.064	0.019	0.726	0.871	1.641	2.127
4	0.185	94.047	0.051	0.025	0.905	1.584	1.313	2.071
5	0.204	92.823	0.074	0.248	1.167	2.605	1.338	1.740
6	0.222	89.896	0.254	0.696	1.816	4.051	1.820	1.463
7	0.241	85.820	0.607	1.453	2.524	5.601	2.684	1.309
8	0.261	80.821	1.156	2.401	3.363	7.199	3.743	1.314
9	0.281	75.220	1.868	3.526	4.209	8.692	5.013	1.470
10	0.304	69.380	2.699	4.721	5.017	10.044	6.386	1.748

#### 4.2.6. Analysis of FDI Equity Cointegration Equation

Equity is a major component of FDI in the MEFMI region. The study employed cointegration test on FDI Equity stock (*FDISE*) to assess relationship with deterministic variables used in the model of the study. The test revealed existence of one cointegration vector. **Table 4.5** and **Cointegration Equation 5** present the findings which are interpreted as follows:-

- FDI Equity stock is significantly and positively influenced by commodity prices (*LCOMP*) and international Government official reserves (*LGOR*). This suggests that new equity investment which include capital and reinvested earnings strongly and positively respond to the rise in commodity prices and the country's ability to meet its import obligations; and
- Similar to overall FDI stock, the adverse effects of the global financial crisis (*DUMMY09*) results in sharp short-run decline in FDI Equity.

**Table 4.5: FDI Equity Equation**

Variables	Estimated Co-integration Vector
LFDISE(-1)	1
LGDP(-1)	0.518
	[ 0.78]
LGOR(-1)	-3.311*
	[-3.49]
INF(-1)	-0.149
	[-1.47]
LEXTDEM(-1)	-0.187
	[-0.72]
LCOMP(-1)	-1.367*
	[-3.01]
DUMMY09(-1)	20.457*
	[ 9.69]
C	24.030

Note: Figures in [ ] are t-statistics.

\*Statistically significant and 5% level

From **Table 4.5**, the estimated long-run cointegration relation of FDI Equity stock and its statistically significant explanatory variables is:

$$LFDISE = -24 + 3.3LGOR + 1.4LCOMP - 20.4DUMMY09 + u \dots \dots \dots (5)$$

**4.2.7. Cointegration Equation of FDI Borrowing**

Similar approach used in FDI Equity stock is applied in FDI Borrowing (another key component of FDI). **Table 4.6** and **Equation 6** summarize the long-run cointegration relationship between FDI borrowing (*LFDISOC*) and deterministic variables. The results show that GDP growth and commodity prices are positively and strongly related to FDI borrowing. These findings suggest that investors are only ready to borrow from related parties when the commodity prices are buoyant and domestic GDP growth (a proxy for domestic demand) is promising and persistent. Decline in borrowing due to global financial crisis reflects investors' sensitivity to cost of borrowing which was relatively high during the credit crunch.

**Table 4.6: FDI Borrowing Equation**

Variables	Estimated Co-integration Vector
LFDISOC(-1)	1
LGDP(-1)	-1.778*
	[-2.0]
LGOR(-1)	-2.170
	[-1.7]
INF(-1)	-0.129
	[-0.9]
LEXTDEM(-1)	0.384
	[ 1.1]
LCOMP(-1)	-1.800*
	[-2.9]
DUMMY09(-1)	26.455*
	[ 9.2]
C	19.095

Note: Figures in [ ] are t-statistics.

\*Statistically significant and 5% level

From **Table 4.6**, the estimated long run cointegration relationship between FDI borrowing and its significant explanatory variables is:

$$LFDISOC = -19.1 + 1.8LGDP + 1.8LCOMP - 26.4DUMMY + u \dots \dots \dots (6)$$

### 4.3. Perceptions Survey Results

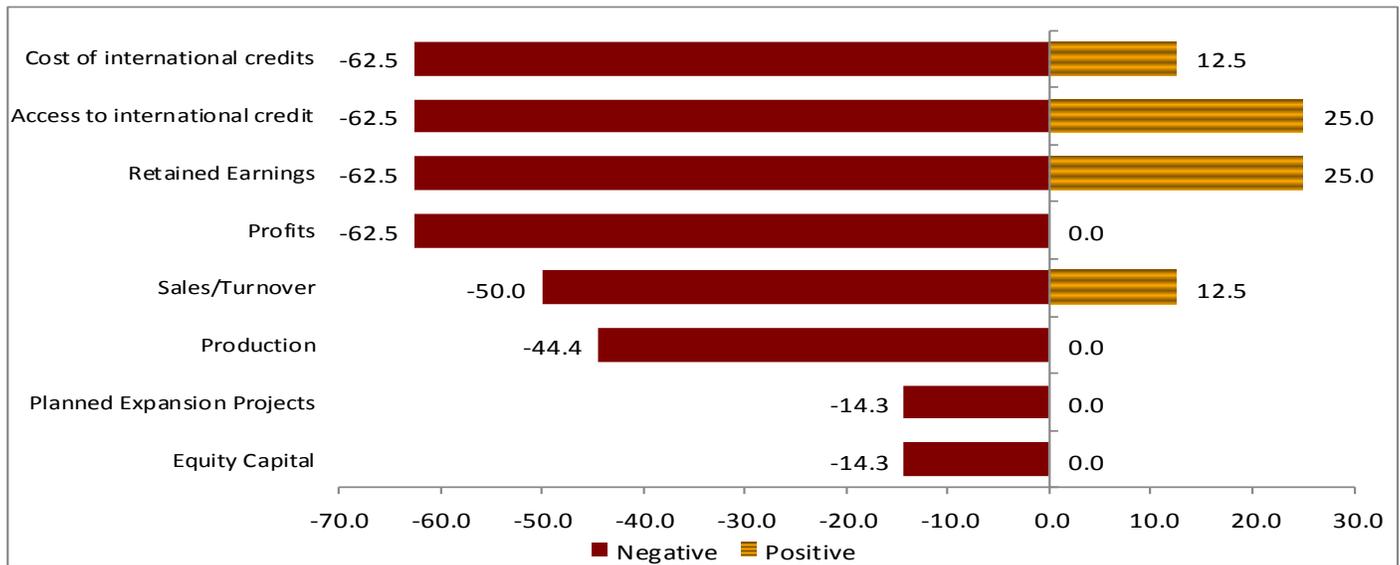
Survey findings verify and complement quantitative results in **Section 4.2**. Overall, the results corroborate the empirical findings. About 60% of survey respondents negatively rated the impact of the global financial and economic crisis (**Figure 4.2**). The negative effects were more pronounced in East African countries, while they were minimal to MEFMI member countries in Southern Africa. The survey results are split into two groups to reflect these disparities and are now presented below.

#### 4.3.1. MEFMI Countries in East Africa

From **Figure 4.2**, it is evident that profits, retained earnings and access to international credit were the most negatively affected variables, followed by sales, production and expansion projects. In some isolated cases, some enterprises experienced a positive influence on these variables during the crisis period. This was however, attributable to the discovery of new business opportunities in the host countries, as well as cost cutting measures that were implemented to sustain business operations.

Equity capital was the least affected variable, suggesting that foreign shareholders of the selected enterprises maintained their interest, which implies continued confidence in these economies as well as hope for recovery from the effects of the crisis.

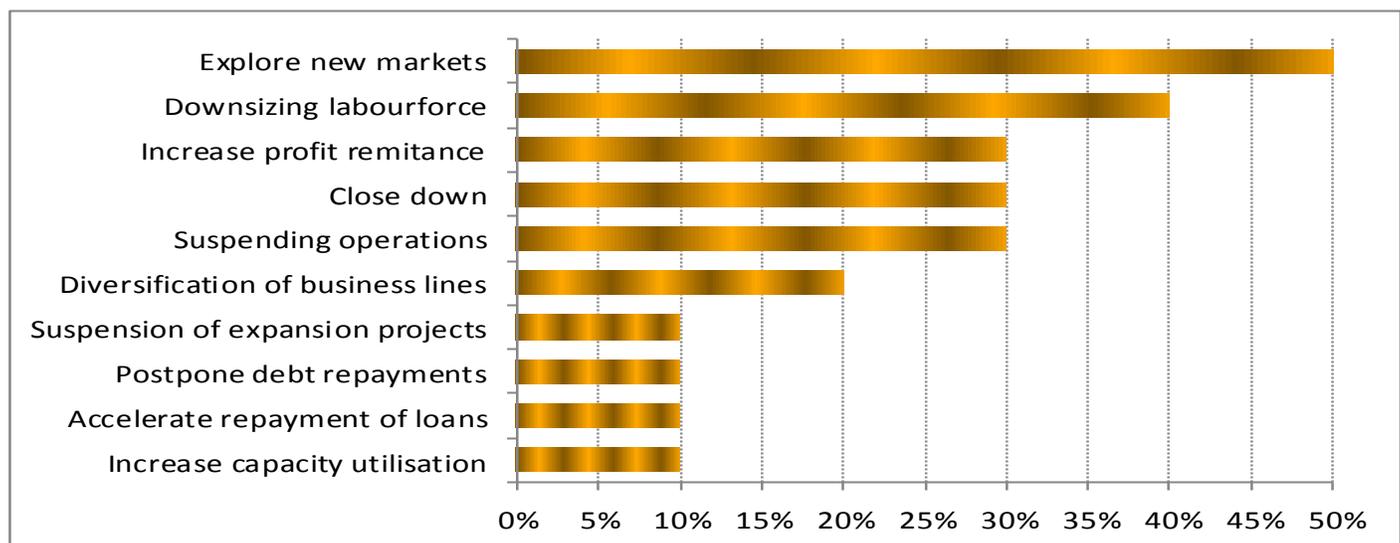
**Figure 4.2: Effects of GFC on Specific Components and Factors Associated with FDI in East Africa**



**Note:** Respondents with neutral positions are excluded from the figure.

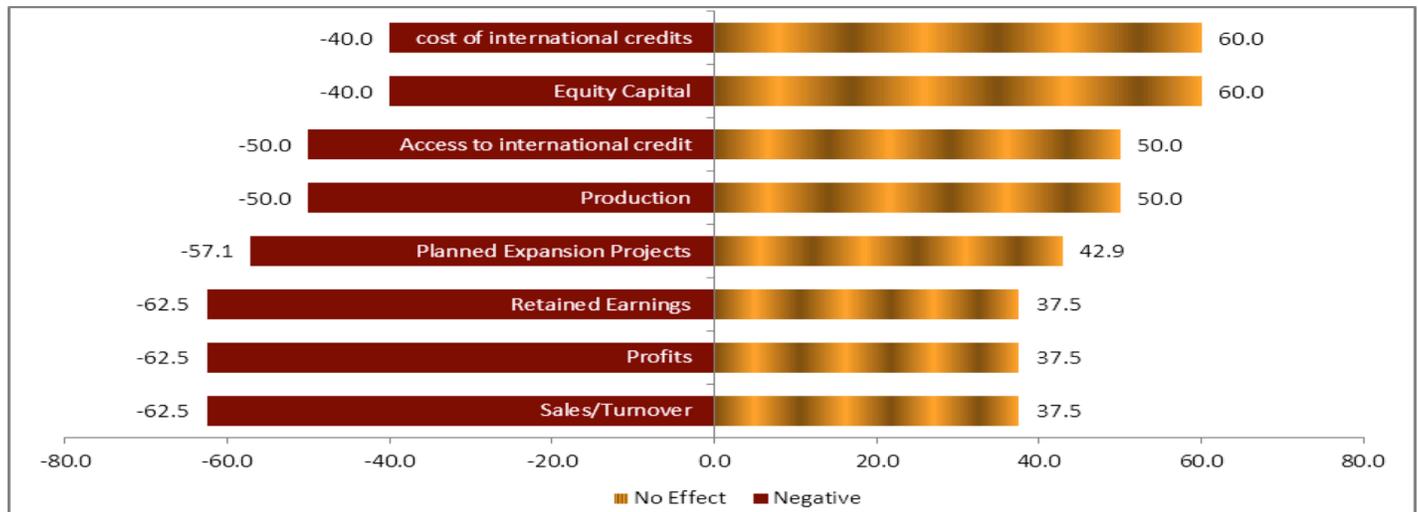
With regard to measures taken by enterprises to minimise the adverse effects of the global financial crisis in Eastern Africa, most enterprises concentrated on exploring new markets, diversifying business lines, while some went further to downsize their labour force, suspend operations or even close down (**Figure 4.3**). In an effort to cushion the impact of the crisis on parent companies, most enterprises accelerated remittance of profits to parent companies leading to lower retained earnings. Other measures included suspension of expansion projects, accumulation of arrears (acceleration of loan repayments) and increasing capacity utilisation as well as cutting down costs.

**Figure 4.3: Measures taken by Enterprises to Minimise the Effects of the GFC in East Africa**



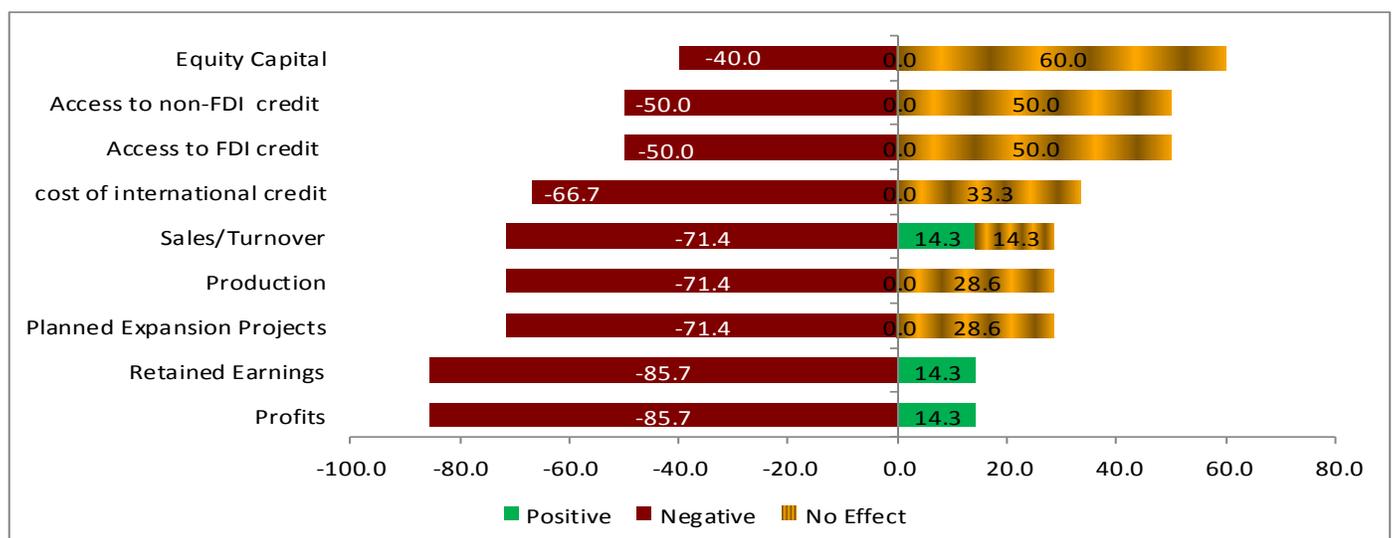
The Euro debt crisis has equally affected resident enterprises in general and FDI companies in particular in the surveyed East African countries. As depicted in **Figure 4.4**, sales, profits, and retained earnings, were the most negatively affected variables. Planned expansion projects were suspended, while about 50% of enterprises had their production and access to international credit, negatively affected. However, equity capital and cost of international credit were marginally affected.

**Figure 4.4: Effects of the Euro Debt Crisis on Specific FDI Components and Related Factors in East Africa**



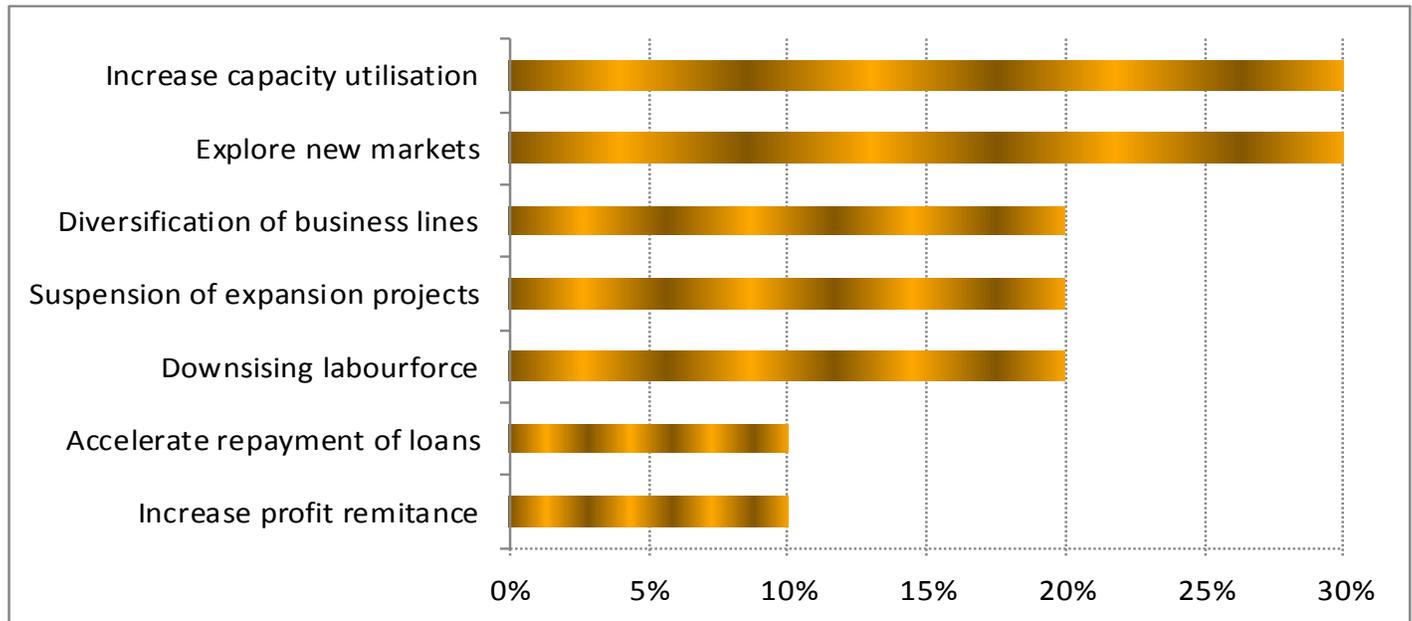
Respondents also indicated their business outlook in light of the worsening of the Eurozone debt crisis. Survey results indicate that profits, retained earnings and planned projects will be the most vulnerable variables, followed by production cost, turnover, and access to international credit (**Figure 4.5**).

**Figure 4.5: Likely Effects of a Worsening of the Euro Debt Crisis on Specific FDI Components and FDI Related Factors in East Africa**



In an effort to minimise the likely effects of the global financial and economic crisis, FDI related enterprises intend to focus on cutting down costs, increasing capacity utilisation, and exploring new markets. Other key measures include diversifying business lines, suspending projects and downsizing labour force (**Figure 4.6**).

**Figure 4.6: Measure Likely to be taken by Enterprises to Minimise the Effects of the Global Financial and Economic Crisis in East Africa**



### 4.3.2. MEFMI Countries in Southern Africa

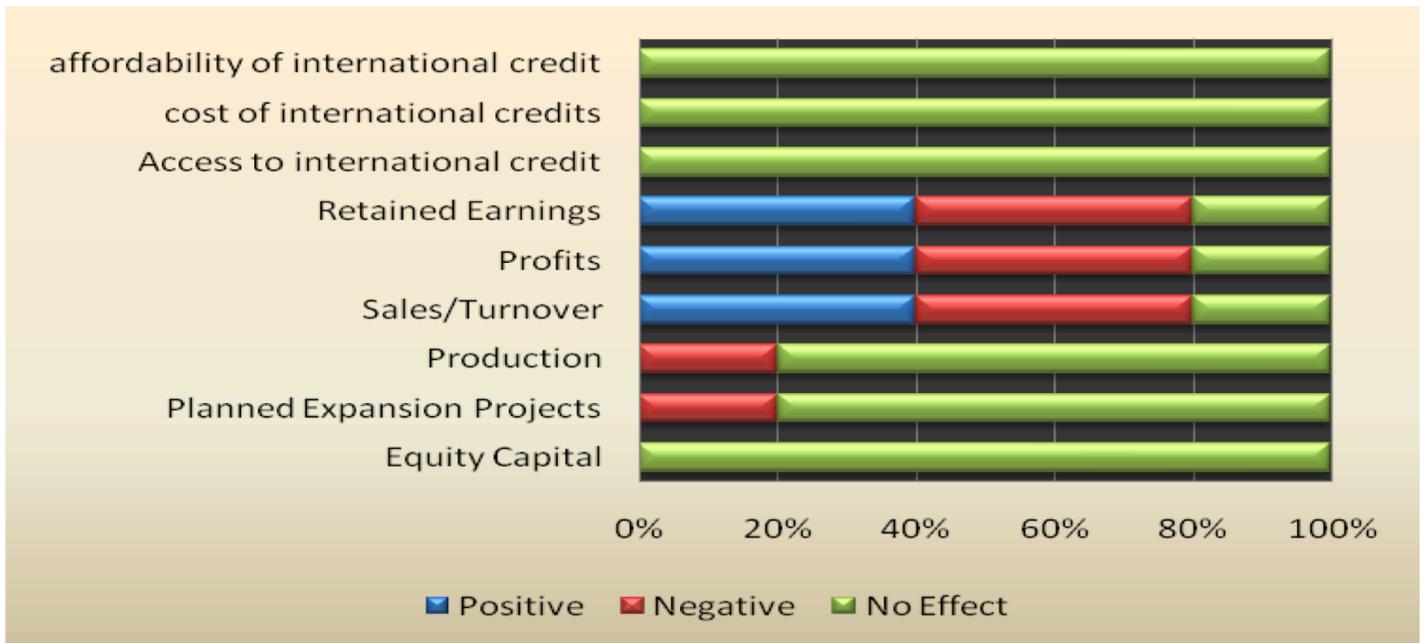
The survey findings from the respondents in Southern Africa (Lesotho and Mozambique) suggested the presence of very minimal to no effects arising from the incidence of the global financial crises. Much of the negative slowdown experienced by the enterprises was attributable to other factors. In addition, the Euro debt crisis had had minimum effect in these countries and its persistence is anticipated to have an insignificant impact on the economies. Sentiments from the respective countries' institutions were also supportive of these findings, which implied the absence of indirect and minimal impact of the twin crises on these economies.

The interviews covered the tourism/hospitality, manufacturing, textiles and insurance sectors. All the interviewed respondents seemed to be in consensus and noted the presence of other factors, whose impact on their operations was measurable and acted to constrain their activities.

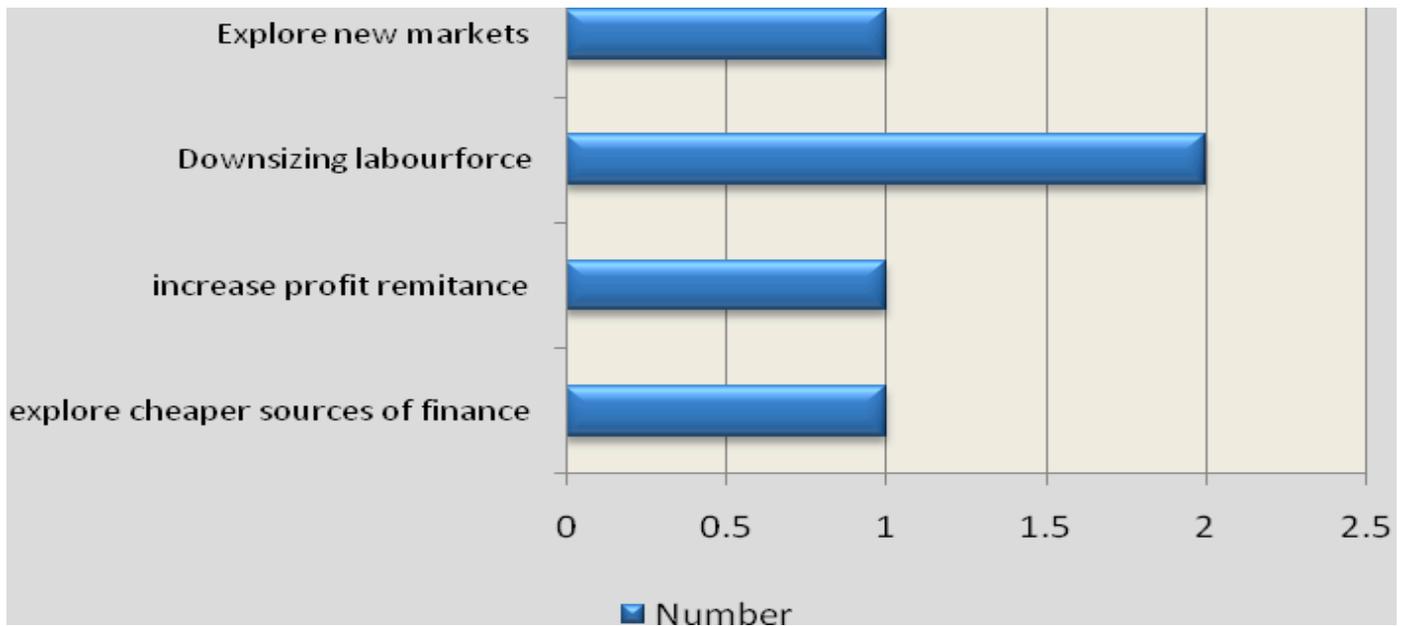
**Figure 4.7** shows that some of the identified FDI related components were not affected by the incidence of the global financial crisis. These variables relate to affordability, cost and access to international credit, as well as equity capital. Equity capital was found to be resilient to crisis, suggesting the strong linkages between the enterprises and their foreign shareholders, most of which have controlling and lasting interests in these entities.

Turnover, profits and retained earnings were, however, affected by the financial crisis, although in some isolated instances, some enterprises experienced a positive trajectory on these variables during this period. This was however, attributable to the discovery of new business opportunities in the host countries, as well as cost cutting measures implemented to sustain operations.

**Figure 4.7: Impact of GFC on Specific Components Associated with FDI: Southern Africa**

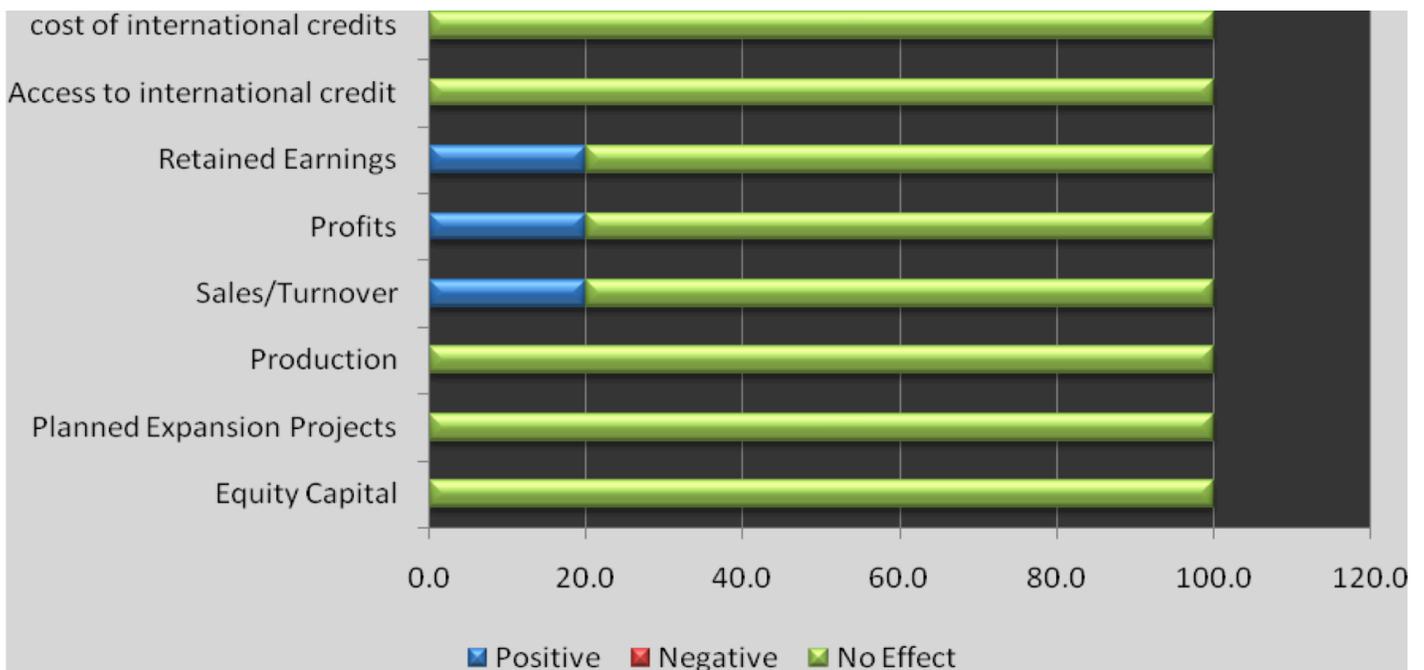


Although the impact of the GFC in Southern Africa was deemed to be of minimal effect, companies remained cautious of its emergence and potentially devastating impact, given its global tendency to slow down economic activity. Companies that sought to insulate themselves adopted measures such as downsizing of the labour force, exploration of new markets for their products, exploration of cheap sources of finances to reduce costs and increased profit remittances (**Figure 4.8**).

**Figure 4.8: Measures to Buttress the Impact of GFC: Southern Africa**

There was a general lack of enterprise appreciation or knowledge of the various measures adopted by the Governments to mitigate the negative impact of the Global financial crises. All the interviewed enterprises in the two countries pointed to a general unawareness of the policy measures put in place, although the respective Governments did allude to implementing a number of fiscal and monetary policy measures to undermine the impact of the financial crises. Such measures probably justify the general expression that the financial crisis was of little effect to the enterprises in these countries.

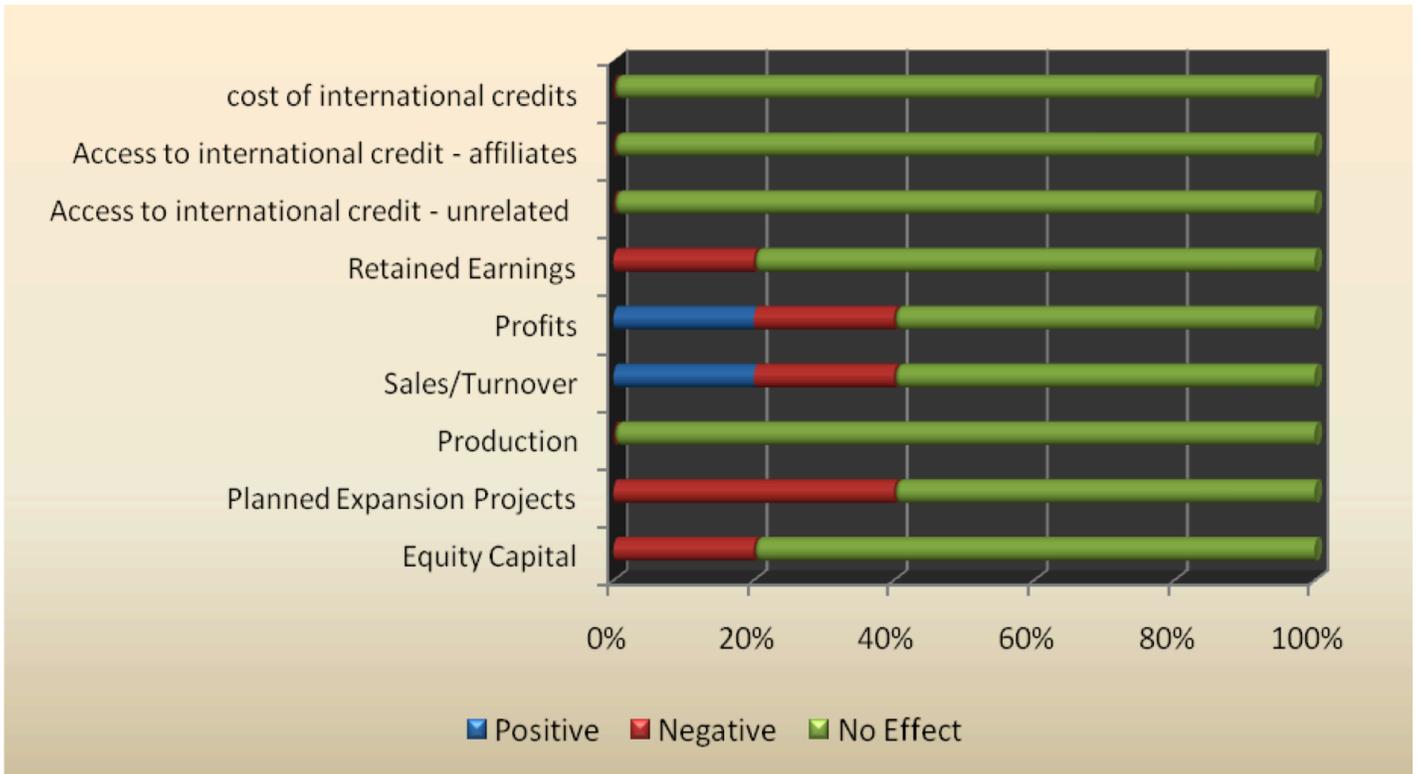
**Figure 4.9** presents the impact of Eurozone Debt Crisis in Southern Africa. Although it was largely anticipated that the Eurozone debt crisis would once again act to slow global economic activity and reverse the momentum gathered after the financial crisis, most of the enterprises seemed to have evaded the effects of the Eurozone debt crisis.

**Figure 4.9: The Impact of Eurozone Debt Crisis: Southern Africa**

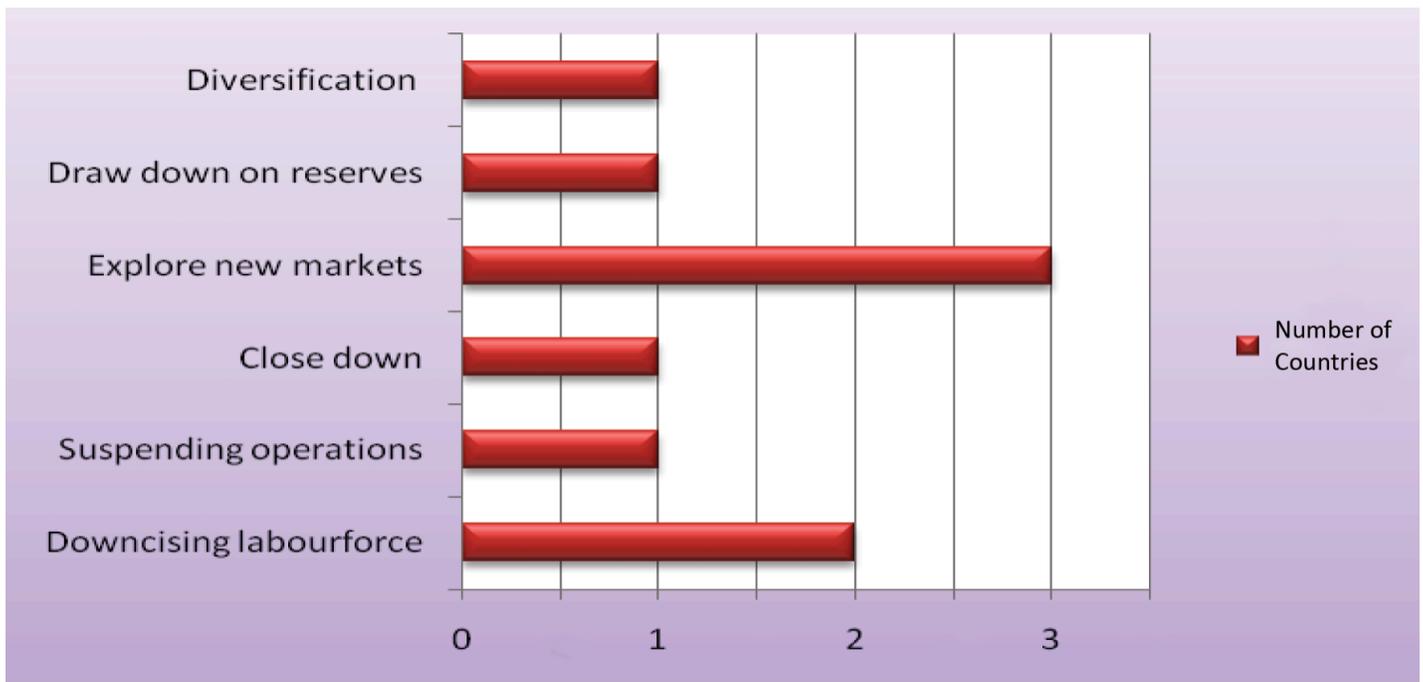
On the contrary, some interviewed enterprises in the hotel industry had received increased business activity due to the influx of business people on investment exploration activities, owing to the discovery of precious minerals in Mozambique. This development, had spurred the upward trend characterizing turnover, profits and retained earnings enjoyed by the tourism sector in Mozambique.

While there existed a general consensus on the limited impact of the Euro debt crises in the short term, projections pointed to a likely debilitating and negative impact of a persisting Euro debt crisis. Expectations showed that in the wake of a continuing and worsening crises, most enterprises were likely to be adversely constrained in their planned expansion projects, sales/turnover, profits and retained earnings levels. Most of the variables, especially for the foreign owned entities, were expected to remain unchanged in the medium to long term (**Figure 4.10**).

**Figure 4.10: The Impact of a Worsening Eurozone Debt Crisis: Southern Africa**



The results from **Figure 4.11** show that as much as the enterprises anticipated minimal direct impact arising from the crisis, company discussions had been done on the likely mitigation measures to be adopted should the Eurozone debt crisis have a crippling effect on enterprise operations. A number of enterprises, especially those in the tourism sector, saw opportunities in exploring new markets as a way of increasing their revenue bases, thus undermining the negative impact of the crisis. Downsizing of labour force was also considered a potentially critical factor, while closing down and suspension of operations were viewed as last resort measures.

**Figure 4.11: Measures to Deal with the Euro Debt Crisis: Southern Africa**

#### 4.4. Impact of the Crises: Cross Country Analysis

The impact of the twin crises in the surveyed MEFMI member countries was asymmetric due to differences in the economic structures of the countries under study. A summary of the cross country assessment is presented below:

- Tanzania:** Survey findings for Tanzania suggested that some companies were negatively affected by the global financial crisis, while others were highly resilient. The most affected were those with predominantly overseas markets. Enterprises with domestic or regional markets were, generally, not adversely affected by the global financial crisis. With regard to the Eurozone debt crisis, the tourism sector had already started recording a drastic decline in the number of market segments, particularly from Europe (Italy) which is the major market. This has had grave implications on the profitability of FDI enterprises and on retained earnings. Most enterprises, however, have no intentions of closing down but plan on cutting down costs and lowering prices for their products to keep business running.
- Uganda:** The Global Financial Crisis had no direct effects on the Ugandan economy and FDI enterprises. The major reasons for its resilience included the strong export performance. The country dominated exports in the regional markets and South Sudan served as a lucrative export destination for Ugandan products at the time of the crisis. In recent years, however, particularly in 2011, Uganda experienced adverse shocks associated with the second round effects of the global financial crisis. The country recorded phenomenal rise in inflation, rapid exchange rate depreciation, and subsequent rise in interest

rates. The rise in global prices for most of their imports and imported inflation through trade with Kenya, contributed to the adverse effects. The negative impact of the crisis on FDI inflows was partly moderated by the increase in inflows to the oil sector, following the discovery of oil in Uganda. Enterprises in the floricultural and fishing industry were adversely affected by the crisis. Companies in these sectors experienced a decline in demand from the European market. These two sectors continue to be adversely affected by the current Euro crisis as well.

- **Mozambique and Lesotho:** The survey findings from both Mozambique and Lesotho suggest the presence of very minimal to no adverse effects of the global financial crisis. Much of the negative slowdown experienced by enterprises in these countries was attributable to other factors. In addition, the Euro debt crisis has had minimum effect in these countries and its persistence is anticipated to have an insignificant impact on the economies. Sentiments from the respective countries' institutions are also supportive of these finding, which overall, implies the absence of an indirect impact of the twin crises on these two economies.

#### 4.5 Institutions and Government Interventions

During the discussion with the officials from the government and key client institutions in selected countries it was observed that they remained vigilant in enacting measures and policies to deal with the global financial crises. Some central banks as well as the investment promotion agencies in these countries all alluded to the absence of direct linkages with these crises. This was the case in countries that enjoyed robust growth during the financial crises, as a result of discoveries of mineral deposits and monetary and fiscal incentives implemented as part of foreign investment promotion.

In response to the global financial crisis, governments of the surveyed countries, through their key institutions took measures to mitigate potential adverse effects arising from the crises. These measures included accommodative monetary policy stance through counter cyclical fiscal policy particularly in the crisis year, and a lot more cautious monetary policy stance in subsequent years. In terms of exchange rate policy, most central banks increased sales of foreign exchange in the market to slow down the speed of exchange rate depreciation. This in most cases had a considerable impact on reserves, which necessitated augmentation of reserves through borrowing from the IMF including the allocation of SDRs.

In order to stimulate growth, some central banks lowered policy rates, and statutory reserve ratios to increase liquidity and facilitate growth. Other macroeconomic policy measures included lowering of value added tax rates, increased capital allowances for investors, removal of windfall taxes, removal of duty on heavy equipment, and exemption of payment of royalties.

Other measures included expansion of investments in infrastructure development such as roads, bridges, and electricity generation. Most of these projects were on going and therefore their effectiveness in mitigating the crisis could not be clearly pinned down. In some countries, power outages continue to be a major constraint and thus a lot has to be done to address this constraint and promote FDI.

Some countries (especially in East Africa) had economic rescue/bailout plans for selected sectors, and increased net domestic borrowing to finance government operations, given the adverse effects of the crisis on tax revenues. The bailout approach's major weakness was the criteria for selecting beneficiaries, thus was perceived not be transparent in some cases. It was targeted at some specific sectors, while the neglecting other sectors.

With regard to the Eurozone debt crisis, Some governments were explicit on some of the measures they expected to undertake in response to the crisis. However, other measures were not explicitly outlined. Major interventions planned included raising the Central Banks' policy rates and statutory reserve requirements to lower inflation. The Central Banks also envisage to increase foreign exchange sales and commercial bank's net open position to minimize exchange rates volatility. To accumulate and maintain an appropriate level of reserves, some have made arrangements with the IMF in order to access for special financing facility, others have diversified their foreign reserves portfolio, while others have been taking advantage of every opportunity in the market to raise an adequate buffer in anticipation of the adverse effects of the Euro crisis. With regard to interest rates, Central Banks committed themselves to promoting an efficient money market to ensure that realistic market determined interest rates prevail. In addition, the Central Banks pledged to continue to build a strong and vibrant financial sector by exercising risk based supervision and regulation of banks, and ensuring financial sector stability. Improving efficiency and effectiveness of the national payment and settlements system and to shore up its resilience to contagion effects, while ensuring that all indicators of financial stability remain strong.

## CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

### 5.1. Concluding Remarks

This study sets out to examine and assess the overall impact of the GFC and Eurozone debt crises on FDI in the MEFMI region. The study further empirically investigated the short and long run responsiveness of FDI and its major components (Equity and debt) to the macroeconomic fundamentals using a Vector Error Correction (VEC) model and Impulse Response Function (IRF)

The measures taken by multinational enterprises as well as policy responses by governments to minimize the effects of the global financial and economic crises were also examined. Special attention was dedicated to assessing the effectiveness and robustness of these measures and policy responses. Furthermore, the likely effects and initial experiences on the impact of the Eurozone debt crisis were explored as well as measures and policy responses governments and institutions had taken or are likely to undertake to minimize the adverse effects of the Eurozone debt crisis.

The findings suggest that the consequences of the GFC and the emerging Eurozone crisis on FDI are indirect and asymmetric. While in the short run the effects of crises on FDI are transitory, grave adverse consequences are evident if the crises persist in the long run. The identified major long-run channels of the effects of crises on FDI include real GDP which characterize domestic market size, commodity prices, external demand and international official reserves. Risk factors such as exchange rate and inflation are also vulnerable to global shocks and therefore pose threat on FDI trajectory. Due to wide disparities in economic structures, some countries under study were immune, some benefitted and some were adversely affected by the twin crises.

This study therefore provides useful diagnostic assessment on the twin crises and gives evidence that the MEFMI region is not immune to crises. Econometric analysis shows that long-run persistence of global economic shock may have grave adverse consequences on foreign direct investment. The study further provides a stock taking of various measures employed by different countries to mitigate the impact of economic shocks on the FDI trajectory. Given diverse economic structures, measures undertaken were quite different and hence countries are advised to learn from each other.

Other variables such as natural resources were excluded from the model due to non-availability of data. In addition, equity could not be split between equity capital and retained earnings components and these constitute a limitation of the analysis. This study recommends that future studies should focus on this area.

## **5.2. Summary of Key Findings, Way Forward and Recommendations**

### **5.2.1. Econometric Findings:**

Econometric findings suggest that the Global Financial Crisis (GFC) exerted downturn effects on the FDI trajectory. Its effects were largely indirect and through other key macroeconomic variables. The effect was however temporary as FDI inflows gradually converged to their long run path in the post crisis period.

The results further suggest that new equity investments and reinvested earnings respond strongly and positively to the rise in commodity prices and increases in official international reserves. Nevertheless, these variables are highly susceptible to global economic shocks and not under the control of local authorities. This demonstrates the need for diversification of FDI to other sectors which largely depend on domestic and regional markets and emerging economies.

The study also established that FDI borrowing responds positively to GDP growth and increases in commodity prices. This suggests that investors are only ready to borrow when commodity prices are buoyant, implying that profitability prospects are critical for debt servicing. In addition, prospects of robust domestic demand (GDP as proxy) are critical in stimulating FDI increase through borrowing from related companies.

### **5.2.2. Perceptions Results:**

Perceptions survey findings suggest that most respondents from East African countries were negatively affected by the recent global financial crises. However, a selected number of countries benefited from the crisis, though largely through a surge in commodity prices associated with major export products which benefited from the crisis, such as gold.

Eurozone debt crisis perturbs recovery in the FDI inflows and its influence is likely to be significant if the ailing economies in the Euro area continue to deteriorate. Several enterprises have already started experiencing adverse effects of the Eurozone crisis following the decline in demand for some of their major export goods and services from the European market.

Although the twin crises were deemed to be of minimal effect, perceptions results showed that companies remained cautious of its emergence and potentially devastating impact. Companies that sought to insulate themselves adopted measures that encompassed: the exploration of new markets for their products; exploration of cheap sources of finances to reduce costs; downsizing of labour force; and increase profit remittances.

While there existed a general consensus on the limited impact of the Euro debt crises in the short term, projections pointed to a likely debilitating and negative impact of a persisting Eurozone debt crises. Expectations showed that in the wake of a continuing and worsening crises, most enterprises were likely to be adversely constrained in their planned expansion projects, sales/turnover, profits and retained earnings levels. Most of the variables, especially for foreign owned entities, were expected to remain unchanged in the medium to long term.

The results from the survey show that as much as the enterprises anticipated minimal direct impact arising from the crises, company discussions had been done on the likely mitigation measures to be adopted should the persisting debt crises have a crippling effect on enterprise operations. A number of enterprises, especially those in the tourism sector, saw opportunities in exploring new markets as a way of increasing their revenue bases, thus undermining the negative impact of the crises. Downsizing of labour force was also considered a potentially critical factor, while closing down and suspension of operations were viewed as last resort measures.

Governments and institutions in all sampled countries in the region took measures and policies in response to the global financial and economic crisis, albeit different in some cases. These measures included accommodative monetary policy through counter cyclical fiscal policy, increased sale of forex to slow down speed of depreciation, bailout approach, lowering of interest rates, statutory reserve ratios, and value added tax. Governments, indicated readiness to take measures to respond to the euro crisis, though most were not explicit on specific measures to take.

### 5.3. Way Forward and Recommendations

While short term crisis mitigation measures proved successful, going forward, the study would like to emphasize on long lasting solutions which hinge on the following:

- i **Exploring new source markets of FDI and destination markets for goods and services.** The reduction in North-South FDI flows could be offset by a surge in South-South flows, with countries like China, South Africa, Russia and Brazil taking the lead. FDI flows from these new players, however, remain small relative to total FDI (UNCTAD, 2012). Nevertheless, South-South FDI is expected to be more resilient than flows from advanced countries, owing to the significant role of state-owned enterprises, limited reliance on international debt markets for financing, and continued efforts to gain access to energy and minerals assets in the MEFMI region,
- ii **Reducing cost of production;** enterprises should focus on production efficiency and Governments should buttress these efforts through investment in infrastructure such as power generation and roads, which are

critical in facilitating current and future growth. Conducive domestic policy solutions could thus ease the painful adjustment related to the fall in FDI by increasing the growth benefits of each unit of the remaining FDI,

- iii **Economic diversification.** Efforts should further be tailored towards diversifying the economy away from the overreliance on raw natural resources and commodity sector to minimise vulnerability to external shocks. Such policies include prudent fiscal management and consistent monetary policy supported by appropriate incentives to channel FDIs into export oriented manufacturing and services sectors or import substitution production activities,
- iv **Building adequate buffers;** with regard to macroeconomic policy response, Governments should aim at building adequate buffers to cushion the likely effects of the Eurozone sovereign debt crisis. These include taking every opportunity to build foreign exchange reserves, strengthening stabilisation funds and social safety nets. Monetary policy response needs to strike an appropriate balance between fighting inflation and stimulating FDI inflows. Policy responses and investment promotion measures should target each component of FDI (equity and loans) as the study revealed that they are driven by a diverse set of factors,
- v **Investment policies that attract FDI in form of equity capital** as it is more resilient to shocks when compared to loans. As indicated in the empirical findings (**Table 4.5**), during recessions in advanced countries, investors tend to reduce their FDI exposure in developing countries by calling back intercompany loans and increasing repatriated earnings, but the equity component generally remains more resilient. Pro-equity capital policies include tax waiver on capital goods and easing regulations on repatriation of shareholders dividends. In addition, well developed financial markets and strong banking systems can enhance foreign investors' confidence and motivate holding of equity share capital in a recipient country.

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## APPENDECES

### Appendix 1: Macroeconomic Indicators: Real GDP, Inflation, Investment and Exports

	Real GDP Growth (%)				Consumer Prices - Annual Average Inflation (%)				Total Investment (% of GDP)				Exports of Goods and Services (% of GDP)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Angola	2.4	3.4	3.4	3.1	13.7	15.3	11.4	10.8	15.2	12.7	11.4	11.7	54.9	62.4	65.9	61.4
Botswana	-4.9	7.2	5.1	3.8	8.2	6.9	8.5	7.5	31.8	29.5	30.7	25.8	32.1	32.6	33.1	37.3
Lesotho	2.8	5.6	4.3	4.3	7.2	3.8	5.1	5.3	28.6	28.6	36.1	43.4	42.6	40.5	48.8	46.5
Kenya	2.6	5.6	5.7	5.1	9.2	4.0	14.0	9.4	19.9	20.9	20.9	22.3	24.2	27.5	28.3	25.3
Malawi	8.9	6.7	6.0	4.3	8.4	7.4	7.6	17.7	25.6	26.0	15.5	16.5	22.3	23.6	21.8	31.2
Mozambique	6.3	6.8	7.2	7.5	3.3	12.7	10.4	3.0	14.9	21.9	24.5	25.0	29.2	27.8	26.7	25.7
Namibia	-0.4	6.6	3.9	4.0	8.8	4.5	5.1	6.7	29.4	28.1	35.5	32.4	42.4	41.3	41.1	44.1
Swaziland	1.2	2.0	1.3	-2.9	7.5	4.5	6.1	7.8	13.9	12.2	9.2	10.5	59.4	59.2	53.2	57.4
Rwanda	6.1	7.5	8.8	7.7	10.3	2.3	5.6	7.0	22.4	21.7	22.1	23.8	10.2	10.4	12.1	12.8
Tanzania	6.0	7.0	6.0	6.5	12.1	7.6	12.7	16.0	29.0	32.0	36.7	40.0	23.9	27.7	31.3	30.5
Uganda	4.1	6.2	6.7	4.2	13.0	4.0	18.7	14.6	22.8	24.3	25.5	26.9	19.6	20.8	22.0	20.8
Zambia	6.4	7.6	6.5	6.5	13.4	8.5	9.0	6.4	21.0	22.6	25.0	24.9	35.9	35.6	47.7	45
Zimbabwe	5.7	8.1	9.3	5.0	6.5	3.1	3.5	5.0	15.1	24.3	23.0	25.1	31.9	58.2	60.0	51.1

Source: IMF African Department Database and Member states Central banks and Ministry of Finance

### Appendix 2: Macroeconomic Indicators: Public Debt, Reserves and Fiscal Balance

	Government Debt (% of GDP)				Overall Fiscal Balance Excl. Grants (% of GDP)				Reserves (Months of Imports of Goods and services)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Angola	29.5	21.7	20.4	28.0	-8.6	7.9	12.2	7.0	3.7	4.7	5.2	7.8
Botswana	5.7	6.7	16.1	15.0	-5.6	-6.4	-4.4	0.0	19.7	15.1	18.3	15.1
Lesotho	40.1	37.1	39.2	...	-5.4	-17.5	-13.3	6.7	6.1	4.5	4.3	3.7
Kenya	44.7	46.5	49.9	47.2	-5.4	-7.6	-5.4	-6.0	4.1	3.9	3.7	3.5
Malawi	40.6	35.1	44.0	49.0	-12.8	-11.6	-6.4	-15.5	1.9	3.1	2.3	1.1
Mozambique	34.4	38.2	39.2	42	-14.8	-12.2	-13.7	-13.4	5.2	4.4	5.2	5.3
Namibia	17.8	15.9	26.8	27.2	-2.0	-7.5	-4.6	-6.3	4.0	3.0	3.5	2.9
Swaziland	16.0	12.0	13.9	22.0	-7.1	-9.4	-9.5	2.2	4.5	3.5	2.4	3.2
Rwanda	21.2	20.2	23.9	25.8	-13.1	-12.3	-12.2	-14.9	5.5	4.4	7.7	5.0
Tanzania	40.1	40.9	43.8	46.8	-9.5	-11.0	-11.7	-9.3	6.2	5.8	4.0	3.3
Uganda	26.3	25.4	30.3	36.2	-4.6	-7.2	-6.4	-8.3	5.4	4.2	3.7	4.3
Zambia	20.2	29.3	24.0	28.0	-5.5	-4.9	-4.7	-7.5	5.4	4.0	3.7	3.5
Zimbabwe	109.3	94.3	90.3	61.5	0.7	4.0	0.0	-1.7	1.2	1.0	0.8	0.3

Source: IMF African Department Database and Member states Central banks and Ministry of Finance

