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FACULTY OF COMMERCE

DEPARTMENT OF ECONOMICS

Impact of Trade Liberalisation on Poverty in Zimbabwe (1986-2012)

BY

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This dissertation is submitted in partial fulfilment of the requirements of the Bachelor of Commerce Honors Degree in Economics in Department of Economics at Midlands state University.

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SUPERVISORS APPROVAL FORM

I Mr Mandishekwa agree that this dissertation by Musvovi George which consist of five chapters listed below, was written and completed under my supervision and thus has my approval for submission.

Supervisor's signature

CHAPTER ONE

CHAPTER TWO

CHAPTER THREE

CHAPTER FOUR

CHAPTER FIVE

DATE

Supervisor's comments

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DISCLAIMER

The views in this study do not necessarily represent the views of the university or my supervisor.

DEDICATION

I dedicate this dissertation especially to my parents. Thank you for financial and social support. My lovely sisters Grace and Gladys Musvovi, their support, love, prayers, and encouragements remain my source of inspiration

Heavenly father bless the Musvovi family.

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MAY GOD BLESS YOU ALL!

ABSTRACT

Since the late 1980s, Zimbabwe has experienced rising poverty for quite a number of years despite policy makers implementing trade liberalisation. Therefore, the study sought to determine the impact of trade liberalisation on poverty in Zimbabwe. Using time series data from 1986 to 2012, an Ordinary Least Squares (OLS) estimation criteria was employed to estimate the change of poverty in Zimbabwe. The study found out that trade liberalization has positive effect on poverty. Policy makers need to be cautious when introducing such a policy. The research recommends complementary policies that ensure benefits of trade liberalization are maximized while losses are minimized.

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LIST OF ABBREVIATION

ADF.....	Augmented Dickey-Fuller
CSO.....	Central Statistical Office
PVTY.....	Poverty
GDPc.....	Gross Domestic Product per capita
OLS.....	Ordinary Least of squares
ESAP	Economics Structural Adjustment Policy
ERS.....	Export Retention Scheme
ESF.....	Export Support Facility
EPZs.....	Export Processing Zones
ICES	Income Consumption and Expenditure Survey
CPI.....	Consumer Price Index
CGE	Computable General Equilibrium
PASS	Poverty Assessment Study Survey
TL	Trade liberalisation
WTO.....	World Trade Organisation
MERP.....	Millennium Economic Recovery Plan
OGIL.....	Open General Import Licence
NERP.....	National Economic Recovery Plan
DW	Durbin Watson
CLRM.....	Classical Linear Regression Models
NSSA.....	National Social Security Association
ZIA	Zimbabwe Investment Authority

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CHAPTER ONE

INTRODUCTION

1.0 Introductions

ZIMSTATS (2011) defines poverty as the inability to attain a level of wellbeing constituting a realistic minimum as defined by the society. The realistic minimum is measured by the poverty line in terms of consumption expenditure. Todaro and Smith (2011) defines trade liberalisation as the removal or reduction of restriction or barriers to free exchange of goods between nations. For instance the removal or reduction of both tariff (duties and surcharges) and non tariff obstacles (licensing rules quotas and other requirements). Those against it claim that it can cost jobs and even lives as cheaper goods flood the market. Proponents however say it ultimately lowers consumer costs, increased efficiency, and foster economic growth hence alleviation of poverty. Poverty has been hiking since the implementation of structural reforms like Economic Structural Adjustment Program (ESAP) which left many economists and policy makers fascinated whether to blame trade liberalisation or some exogenous shocks. This chapter shall look at background of the study, objectives of the study, hypothesis, and organisation of the research. This study is expected to give apparent view of the situation that gave trade liberalization to be singled out as an important factor that impact on poverty.

1.1 Background of the study

Poverty in Zimbabwe is linked to the country's colonial history. Policies introduced at that time impose greater inequalities and perpetuate poverty among blacks and this led to the liberation struggle in the mid 1960s through to 1980. When the country attained independence on 18 April in 1980 the government gave first priority to poverty reduction.

The government also embarked on policies of rapid expansion of rural infrastructure and setting up minimum wages and effecting real wage increase. Government accorded a high proportion of its expenditure to social sectors. The socialist policy resulted in dramatic improvements in health and education accessibility, availability and improvement in social indicators. However, these policies were not conducive to sustained economic growth and the economy began to stagnate in the mid to late 1980s.

Since then the government faced a dilemma of formulating poverty –reduction strategies within the context of a liberalised economy. By the end of the 1980s more than half of the sub-Saharan African countries had agreed to implement structural adjustment programmes initiated by the IMF and/or the World Bank. The implementation of these programmes was a condition for receiving aid and new loans from bilateral donors as well as from the multilateral institutions (World Bank, 2011). As a result of high level of unemployment, high inflation, and increasing budget deficit, authorities were under pressure to vaccinate market oriented reforms, thus accepting the World Bank economic reforms which have trade liberalisation as its important component. Trade liberalisation events can be distinguished into four phases up to early 2004 (see Appendix 5).

The first phase was from October 1990 to 1993 when Export Retention Scheme (ERS) was introduced in July 1990 as a way to provide incentives to those who export. In October 1990 Open General Imports licences was introduced as a way to reduce poverty by stimulating goods trade between Zimbabwe and other nations. Concurrently Export Support Facility (ESF) was initiated for those who did not have access to ERS to import inputs (Mumbengegwi, 2004). Devaluation of the Zimbabwean dollar followed in August 1991 (World Bank, 1995). With all these the government want to combat poverty by augmenting export growth. The second phase started in 1993 to 1995 with the placing of most goods on the Open General Imports Licences (OGIL). All imports were placed on the OGIL except those that were regarded as strategic such as fuels (Tekere, 2004).

The third phase coincided with a start in late 1995s with the implementation of commitments and conventions of the framework of World Trade Organisation. Tariffs were significantly reduced and non tariff barriers were converted into tariff equivalents allowing the controls to move towards tariffs only protection. Importantly export incentives that served as lifelines for some firms were removed with the exception of duty and export financing schemes (Tekere, 2004).

The final phase during the liberalization saw the implementation of the Export Processing Zones (EPZs) that included more than a few export incentives to promote export oriented production and development. EPZ program failed to take off due to lack of devotion on the part of government, difficulties to access the incentives, policy reversal, lack of coordination between government departments and economic hardships faced by firms. ESAP was succeeded by ZIMPREST that sought to further intensify trade liberalization measures adopted under ESAP.

In 1995 the government of Zimbabwe also ‘locked in’ trade liberalization initiated within ESAP and adopted the World Trade Organisation (WTO) Conventions. There was optimism that WTO will result in economic growth, employment creation, increased exports, favourably impact on poverty and integrate the country into the world markets (Mbegabolawe, 2003). However, the reality five year possesses sad picture, agriculture was labelled an apparent winner of trade liberalization, mining remained a shattered dream, and manufacturing sector was labelled the main victim of trade liberalization (Tekere, 2004). Figure 1.1 depicts the real picture annually of trade liberalisation and poverty.

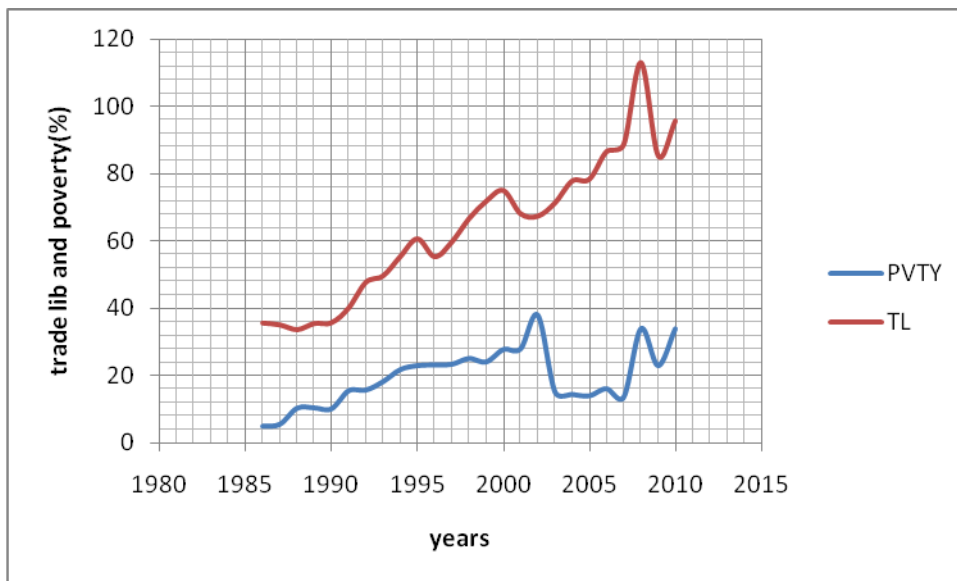


FIGURE1.1: Trend in trade liberalisation (TL) and poverty (PVTY) (1986-2010)

SOURCE: Penn world tables (2011), ZIMSTATS (2012)

The years 1986 to 1988 saw trade liberalisation and poverty rising. Around 1989 to 1995 trade liberalisation rose sharply perhaps due to ESAP. On the other hand poverty escalated probably due to negative effects of the reforms. In 1996 trade liberalisation declined while poverty was increasing. From early 1997 there was an increase in the trade liberalisation ratio up and until early 2000 after which we saw a temporary decline in 2001 until the late 2001 probably due to ZIMPREST policy reversal while poverty declined. On average from year 2001 up to late 2006 trade liberalisation increases while poverty declined. From early 2007 to 2008 the ratio increased while poverty increases perhaps due to high level of inflation. From year 2008 to 2009 we saw the two variables moving in the same direction -trade liberalisation decline while poverty decline. From 2009 trade liberalisation increases while poverty also increase.

1.2 Statement of the problem

Poverty is a major pandemic that every society has to worry about. Poverty is a major worry as it is affecting the majority of Zimbabweans. It is a generally accepted case that trade liberalisation plays a pivotal role in alleviating poverty in developing countries than large economies (World Bank, 2004). From CSO (2001) report it is quite evident that most Zimbabwean households live below the poverty datum line despite the fact that policy makers were implementing trade liberalisation measures whose main thrust was to reduce poverty. The research therefore seeks to investigate why there has been persistent poverty in Zimbabwe even though there was optimistic trade liberalization policy to alleviate poverty.

1.3 Objective of the study

The main objective of the study is to investigate the impact of trade liberalization on poverty. Sub objectives are:

- To determine the impact of other factors on poverty.
- To establish suitable policies that are required to reduce the magnitude and extent of poverty.

1.4 Significance of the study

Diverse studies have attempted to quantify and analyse poverty but few have been national in scope except ZIMSTAT's Poverty Income Consumption and Expenditure Surveys (PICES) and Ministry of Public Service Labour and Social welfare's Poverty Assessment Study Surveys (PASS) (1995, 1998, and 2003). Specifically the main focus of PICES is to ascertain the food poverty line and the total consumption line but could not establish the effect of trade liberalisation on poverty and could not advise policy makers about possible relationship between the two.

Researchers attempted to quantify the relationship between trade liberalisation and poverty but efforts were trivial by incomplete analysis. For instance Dollar and Kraay (2002) says growth is good for the poor as it is to the rich. The duo have singled out economic growth as a factor that increase economic wellbeing and impact negatively on poverty thereby giving the impression that increase in economic growth have an automatic impact on poverty. Nevertheless, in the current study, correlates of poverty particularly trade liberalization will be handled using some econometric tests. Furthermore, the significance of this research is to stakeholders like policy makers, responsible authorities, the society, and other researchers.

For policy maker the research will locate policies tailored to handle the problem of poverty and be able to assess and ascertain outcomes of intended objectives. To the university the researcher is to show how convincing is the programme. The other inspiration is to understand how the research is done.

1.5 Research hypothesis

H₀: Trade liberalisation has no impact on poverty in Zimbabwe

H₁: Trade liberalisation has impact on poverty in Zimbabwe.

1.6 Scope of the study

The research investigates the impact of trade liberalisation on poverty in Zimbabwe and attention is on the period 1986 to 2012. By accessing secondary data sources the duration of the sample period has been adopted to confer a reasonable check on the long term relationship between the two variables.

1.7 Delimitation

In carrying out the study, the research will be restricted to trade liberalisation and poverty. Information to be considered will only be obtained from large organisations thus there will be boundaries on which to carry out the study. Investigations will only be on trade liberalisation policies enshrined in ESAP, ZIMPREST, MERP and WTO, but not other components of these reforms like deregulation and privatisation drives.

1.8 Limitations of the study

Financial resources and time constraints held back the smooth investigation of stated hypothesis. Data availability and reluctance on part of the authorities in giving out data resulted in the having deficient data on variables. The research should have used other comprehensive measure of poverty but data was not easy to unearth.

1.9 Organization of the rest of the study

Chapter Two will review both theoretical and empirical literature. Methodology about how the research is to be conducted follows in Chapter Three. Results of the current study and its analysis follow in Chapter Four. Finally in the current research summary and policy recommendation are in Chapter Five.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Poverty is a multi-disciplinary phenomenon and less agreeable to plain simple solutions, there are different views on factors that impact on poverty, no factor, or policy can be singled out. This chapter looks at the theoretical and empirical literature in the field of international trade, how these offer weight in crediting or discrediting trade liberalization impact on poverty. The researcher will critically look at how studies (empirical literature) have been carried out to describe the effect of trade liberalization on poverty. At the end of this chapter the researcher is expected to reveal other correlates that impact on poverty other than trade liberalization.

2.1 Theoretical literature review

The general agreement in theoretical literature is that trade promotes economic growth and hence reduces poverty. Trade liberalization potentially impacts on poverty via its effect on per capita growth and income distribution. Participating country draws significant welfare gain from trading (Winter and McColluch, 2005). Theorists that contributed in explaining improvement in standard of living that emanate from trade are considered next.

The theory of Comparative advantage is regarded as one of the cornerstones of trade theories together with absolute advantage theory. According to the theory countries engage in international trade because they stand a chance to gain if they specialize in the production of products with low opportunity cost. Countries should comprehend their factor endowments then direct production to the best alternative. A country undertaking such specialization would then slot in international trade with other countries to get those products which are of second best alternative in utilization of resources (Bernhofen *et al*, 2004). In opportunity cost terms, a country should specialize in production of that product whose cost for failure to produce is higher than that of the second alternative (Helpman, 1987).

To Ricardo even if a country would produce more of the two products than the other country (the absolute advantage), it should specialize in producing that product in which it has an advantage in utilization of the available resources (comparative advantage) (Bernhofen *et al*, 2004). In countries where there is comparative advantage in exporting goods that employ more unskilled labour, the theory would lead us to wait for trade liberalization to produce an expansion in national output and increase employment to unskilled labour. Consequently, it will be good for the poor since moving into or out of employment is one of the major reasons for households to move into or out of poverty.

The Heckscher - Ohlin model (H-O model) explains why countries trade goods and services with each other. According to the theory, the first reason was difference in factor endowments between the two trading countries. The patterns of trade are determined by the differences in factor endowments and not by productivity as suggested earlier by the comparative advantage (Feder, 1987). The focus of the H-O theorem is on relative advantage and not absolute advantage. The H-O model pointed that for a nation to derive benefits it has to exchange commodities which it has resource abundance with the scarce ones from other countries. Specialization of a certain commodity should be done by each country on the basis of the abundance of the current resources (Helpman, 1987).

The Heckscher-Ohlin model therefore concludes that trade liberalisation stimulates demand for commodities which employ abundant factor intensively. Accordingly trade increase the demand for the abundant factor of production hence generating employment for the poor, because the poor's main asset is labor. This obviously links the ability of trade liberalisation in reducing poverty levels in the medium to long term period to country that trade in confidence of its abundant factor. Contrary to this idea there is a widely known view which predicts the job destructions, relocations, and associated adjustment costs due to opening up the economy. Trade liberalisation is therefore argued to be associated with both job loss and job destruction. In the short run the net employment effect will depend on country specific factors for example how the labour and product markets function.

The other theory that emphasizes how trade liberalisation affects poverty is the Vent –for the surplus theory of trade. The theory says that opening world markets through international trade permits countries to make better use of formerly underutilized land and labour resources so as to produce larger primary-products, the surpluses of which can be exported (Todaro and Smith, 2011). The underutilized human resources create the opportunity to expand productive

capacity and gross national income. Specifically the theory says that opening of world markets to remote agrarian societies create opportunity not to reallocate fully employed resources as in traditional theory but rather to make use of formerly underemployed land and labour resources to produce greater output for export to foreign markets. On condition of free trade the increase in price of exports may lift up the demand for unskilled labour and is likely to have a significant favourable effect on poverty through increase in wages or employment or both.

The New Trade Theory takes a different approach from the H-O and the Ricardian's model on why countries engage in international trade. According to the theory, the highest percentage of trade took place within intra-industry rather than inter-industry. Even though traditional theories put emphasis on the international exchange of one set of goods for another (inter-industry trade) due to comparative advantage, much of international trade involves the two-way exchange of goods within industries (Grubel and Lloyd, 1975). The theory suggests that firms manufacture differentiated products and concentrate production in a single location, while consumers spread their expenditure across all firms' varieties giving rise to two ways trading even if countries are identical (Davis *et al* , 1997).

According to Krugman (1979), the new trade theory makes the subsequent assumptions for it to be appropriate to the real world situation. Technology is an explicit factor of production produced with inputs of capital and labour, thus endogenous to the model of growth. Samuelson (2004) re-emphasise that the New Trade Theory noted that, the bigger the size of a firm or industry the more the efficiency of its operations in that the cost per unit of output falls as a firm or industry increase output. The increase in output should be matched by an increase in the market size for it to be sustainable. Therefore countries engage in international trade because of economies of scale which leads to perfect competition and creates more efficient firms which continue to expand because of increased output (Sachs and Warner, 1995). If a nation open up and engage in international trade, variety of goods that consumers can buy increases, and thus increases their welfare by reducing poverty since food and non-food items will be available at a relatively cheaper price.

The New Trade Theory therefore gives an insight on benefits of international trade. The theory suggests that high rates of trade occur within intra-industry and benefits are derived from increasing returns to scale. Trade protectionism will only benefits the relatively well-off

minority capital owner, while with trade liberalization income is to be redistributed to the poor through the transmission of changes in border prices.

On the other hand the endogenous growth model stresses dynamic benefits of trade liberalisation. Importantly they include a produced accumulated factor of production which is durable input whose stock increased over time for example human capital, technology and physical capital. Output growth in endogenous is permanent while in the neoclassical growth it converges. According to Winter (2000) with this theory, trade can impact on income and long run growth through scale, redundancy, and spill over effects. Spill over effects relates to diffusion and integration of new technologies and it is embodied in goods sold across countries and can be easily imitated by less affluent countries.

Redundancy effects stem from the fact that opening trade reduces unnecessary waste of resources devoted to research and development. Finally scale effects emphasize the integration of markets through trade so that relative prices or technological designs assume the Richadian structure of growth. It is against these effects that the country that liberalise trade is likely to exert downward pressure on prices of basic consumption commodities to the poor because of competition.

The North-South model of unequal trade rose as a critique to the traditional neoclassical trade models. Todaro (2011) reveals that an initial state of unequal resource endowment may be reinforced and exacerbated by the very trade that differs in resource endowment. Therefore if rich countries (the north) are well endowed with vital resources of capital, entrepreneurship and skilled labour, specialisation can create an opportunity for growth while in contrast the developing nation (the south)'s terms of trade are deteriorating. As a result trade liberalisation distributes the benefits largely to the people who are already relatively better-off and perpetuate poverty. Thus the model stresses the point that the traditional model made an error by assuming trade relations apply to rich and poor equally. On the other hand the South-South trade model or simply trade among developing nations says it is better to trade among developing nations because of reputation effects since once entered into trade with developed countries it is difficult to break a promise on account of reputation effect (Ray, 1979).

In conclusion trade liberalization cannot be sustained in a context of macroeconomic instability. Michaely *et al* (1991) said that in an unstable macroeconomic environment and with an overvalued exchange rate, trade liberalization is likely to be reversed.

2.2 Empirical literature review

There has been considerable trade liberalization in the post second world war era. This has particularly become pronounced in the mid to late 1980s. Over 100 nations across the world have implemented some measure of trade liberalization such as tariff reduction, tariffication of other non tariff barriers and removal of surcharges. Consequently average tariff and other barriers to trade fall significantly. Empirics on the impact of trade liberalization on poverty are to be discussed.

Lal (1986) submit an application of a modified Stolper-Samuelson Theorem using general equilibrium models of simultaneous equation directly to the Philippines. Distinguishing only tradable and non-tradable goods, but allowing for flows of inputs between sectors, he explains the decline in real wages in terms of real exchange rates. However, trade liberalisation and trade growth have vastly increased female employment and reduce income poverty in the clothing industry.

Greenaway and Milner (1991) they focused on five countries which received World Bank Structural Adjustment Loans (SALs) requiring important trade policy reforms. Three of these countries experienced revenue enhancement (Mauritius, Kenya, and Jamaica) and two revenue depletion (Morocco and Côte d'Ivoire). Using OLS they identify a number of reasons as to why. Firstly, revenue tends to fall if the existing tariffs are below the revenue maximising rate as in Morocco and Côte d'Ivoire, but not in the other three countries. Second, in all the revenue enhancing cases, some kind of temporary tariff surcharge was introduced when quantitative restrictions were removed. Third, the induced changes in the import/export base appear to have been important, particularly in the case of Mauritius. And finally, of the two cases where export incentives were planned, the Mauritian reforms were successful in improving standard of living because they were administratively simple, funded by the introduction of other non-trade taxes, and the exchange rate was allowed to depreciate. In the other case – Côte d'Ivoire - none of these conditions applied and the trade liberalisation failed.

Jazairy *et al* (1992) in surveys studied ten Sub Saharan African countries. The conclusion was that the increase in poverty levels in the region from 18,2 million to 36,2 million from 1965 to 1992 structural adjustment programs must have something to do with the worsening pattern of poverty in the region. However, contrary to Jazairy findings Demery and Squire (1996) who uses cross country regression argued that economic reforms that trade liberalizes

is consistent with a decrease in overall poverty. Failure to reform was associated with increased poverty. The duo conducted a household Surveys in six Sub Saharan countries and also concluded that the most compelling evidence to date is that improvement in macroeconomic policy regime associated with the World Bank and International Monetary Fund support are consistent with decline in incidence of overall poverty. They also attributed the high incidence of poverty to poor macroeconomic management as in budget deficit, unemployment, inflation, and balance of payment status.

Sachs and Warner (1995) defined trade liberalisation as a dummy variable (1 for openness 0 otherwise). The duo in both developed and developing countries used ordinary least squares (OLS) over a period of 1970 to 1989. They also include other explanatory variables like investment rate, government spending on education and political stability. They found openness index to have a positive impact on gross domestic income per capita (a proxy of poverty). Dollar and Kraay (2004) more or less replicated the above results. However, the duo use a larger sample (decade-over decade) on selected nations in every continent. Considerably more demanding econometric technique (cross country regression) which scrutinizes the relationship in both the lower and upper quintile across countries was used by the duo. The two relate the mean income of the poor (lower quintile) to upper quintile mean income plus some additional variables. They thus concluded that growth has been beneficial for the poor.

Ravallion (2001) offers a support for Dollar and Kraay's propositions of the poverty-growth link and regress mean income on absolute poverty in the same area. With OLS Ravallion then concluded that a 1% increase in mean income results, in a fall of 2.5% in absolute poverty. However, Srinivasan (2000) gave a warning on data and pointed that since so many aspects of the poverty-growth link are unique, we will discover more from detailed case-studies than from broad-brush regressions. Srinivasan interjected that the Dollar and Kraay approach explains the share of the bottom quintile with mean income as simplistic to postulate and seek a stable, one-way relationship between trade, growth, and poverty. To emphasize the average income of the poorest quintile is a very crude indicator of poverty.

Frankel and Romer (1998) with a sample of 150 countries including the United States carried out an investigation of the impact of openness on real GDP per capita. They use a modelling method (somewhat much better and superior) than other methods. Impact of openness GDP

per capita (a proxy for poverty) was found to be significant. A one percentage increase in ratio of trade to GDP impact favourably on per head income by between one half and two percent

Greenaway *et al* (1998) conducted a study on sixty nine developing countries in Africa and Asia. Using cross country regression of which the dependent variable was poverty represented by GDP per head and other exogenous variables were secondary enrolment, changes in prices of exports ratio of investment to national output and the dummy variable of openness. They realised a significant coefficient of index of openness on poverty by a sustained annual 2, 7 percent.

Milner and Wright (1998) using OLS investigated industry level data on Mauritius and find a slightly more hopeful reliance on trade liberalisation. After an initially undesirable wage effect they find fairly physically powerful long-run growth in wages and employment in the exportable sector (mainly of female labour producing clothes). But they also find, surprisingly, growth in the import-competing sector. In fact, Mauritius opened up via export promotion rather than import liberalisation and, according to Rodrik (1997) owes success to its institutions rather than liberalising trade.

Ebrill, Stotsky, and Gropp (1999) draw a similar set of lessons from detailed studies of trade liberalisation in Argentina, Malawi, Morocco, the Philippines, Poland, and Senegal. In a cross-country panel regression they found that countries that reduced tariffs over the period 1980-92 did not significantly lower revenue from import tariffs as a proportion of GDP than those that did not. This was done to prove how decrease in government revenue will decrease social expenditure and hence perpetuating poverty. On the other hand, those which dismantled quantitative restrictions did have significantly higher revenue from import tariffs as a proportion of GDP than those that did not. Detailed individual country studies bear all this out.

Gallup, Radelet and Warner (1998), concluded from a cross-country regression in Africa that on average, the Incomes of the poor (the lowest 20% of the income distribution) increase proportionately with overall average incomes stimulated by trade liberalisation. They found that in some countries the poor see less than proportionate growth. They argued that there are as many converse cases in which the poor have done better than average from trade liberalisation. They use a sample of 60 countries, over varying periods since the mid-sixties,

and use GDP per head as the proxy for mean incomes of the poor. In addition they identify additional independent factors stimulating the growth of the poor's incomes: lower initial income; better health; temperate location, government savings (held to be a proxy for a sound macro stance) and political stability.

Barrett and Dorosh (1991) predict the short-run effects of rice price changes in Madagascar by applying Kernel estimates. They approximate that one third of poor rice farmers could lose from higher prices or price variability. Sahn and Sarris (1991) apply basically this methodology to several African countries to find out the significance of structural adjustment programmes on rural smallholders. They consider wages as well as sales of output as sources of income. Their work is gorgeous in its reliance on observed ex post price data but they do not relate these to trade policy changes.

Roemer and Gugerty (1997) conducted a study on causes of poverty in Australia. Using OLS they found unemployment to be a major factors that impact on poverty since about 16.6% of the unemployed in that survey were below the poverty datum line. Meanwhile Thurow (1967) come up with a regression fit that analyses causes of poverty in Latin America. He postulated an OLS regression equation with poverty as the dependant variable while growth in GDP, percentage of the rural population, unemployment, government, inflation and budget deficit where explanatory variables. He concluded that unemployment and inflation were significant and positively related to poverty.

Ravallion and Datt (1999) explore using OLS the factors behind pro-poor growth more thoroughly in the context of differences between Indian states. Higher farm yields, higher development spending, and lower inflation all appear to reduce poverty. Translated into the terms of national growth (and probably openness), pro poor growth seems more likely to occur where initial conditions give the poor the ability to take advantage of the opportunities it generates

White and Anderson (2001) categorise growth histories into 'pro' and 'anti' poor experiences using standard OLS growth equations for every country in different regions of continents. They find that in over one quarter of cases, distributional changes off-set growth effects – in effect the mean income and 'poor' incomes moved in different directions. They were not very successful, however, at identifying the factors that make growth pro- or anti-poor. They run 'standard' growth equations for the income growth of each quintile and examine differences

in the resulting coefficients. To them it was hard to detect clear patterns, but one bleak result was that openness is associated with significantly higher income growth everywhere except in the top quintile, and that the greatest effects proportionally are for lower quintiles. That is, openness appears to be progressive.

Levinsohn, Berry and Friedman (1999) study surveys of changes in Indonesian price indices by class of household find that the poor suffered more from price increases in 1997 than the non-poor, although with significant geographical variations. Thomas *et al* (1999) also examine the consequences of the Indonesian crisis and conclude that the greatest challenge in making poverty assessments is constructing the correct price deflator. The former survey, in a very thorough study, also show that households in agricultural regions fared relatively well in income terms, essentially because the prices of their output increased relatively more.

World Bank (2000) reports reveals that there is enough evidence from surveys on the relationship between trade and growth in GDP per head based on two countries in China and India where it is true that majority in the two countries live in rural areas. The duo countries between 1980 and 2000 experienced a dramatic decline in poverty when their national output grew. Keeping in line with Bhagwati hypothesis of early 1960s that growth is a principal driver out of incidence of poverty. As revealed by Asian Development Bank (2000) the incidence of poverty declined from 28% in 1978 to 9% in 1998 in China while the Government of India (2000) estimates poverty prevalence fell from 51% in 1978-78 to 27% in 1999-2000.

On the other hand World Bank (2000) says that Viet Nam in the 1980's undertook a gradual approach. By engaging in imports monopolies, maintaining quotas and high tariffs in agriculture in some industries Viet Nam was however successful in attaining GDP growth targets, vehemently alleviating poverty and attracting foreign direct investment. Meanwhile Sub-Saharan Africa and Latin America was found to be submissive to WTO conventions of trade liberalisation by slashing tariff and quotas but however their economies have been clueless social indicators were not as good and they are not integrating very well with the global economy.

Rodrik and Rodriguez (2001) using cross country regression studied eighty four nations from all continents for a period of four decades (1960-2000). They estimated a regression line of per head growth on status quo income per head, life expectancy, changes in terms of trade,

budget deficit, institutional quality, changes in rate of inflation and trade liberalisation. The coefficient of trade liberalisation was statistically insignificant, hence they argued that the effects of liberalising trade on growth in GDP per head was through capital deepening rather as opposed to Dollar and Kraay(2004)

Phelps (2001) imputed inflation as an important variable that impact on poverty. He argued that if trade policies are implemented in an arena with high inflation the policies are trivial on account of strong financial base to implement the policies. Using cross country regression analysis and focussing on less developed countries he targeted countries with higher inflation rate, and concluded that initiating any trade policies in hyperinflationary arena would lead to stagnant growth.

Bourguignon (2004) identifies inequality in distribution as the main causes of poverty in most growing economies. He studied the relationship between economic growth and poverty and concludes that negative economic growth results in poverty. He had hypothesised that economic growth reduces poverty. After studying forty seven middle income countries in Africa and Asia while using OLS he concluded that economic growth does not have an automatic impact on poverty. By the same token Hanmer and Naschold (2000) added an instrumental variable (proxy) for income distribution to test any possible effect that inequality might impose on poverty in Africa. Using cross country regression the duo show that when inequality is low growths alleviate poverty nearly double as much than when inequality is rampant.

Salinas and Aksoy (2006) expounded further on previous studies by correcting the before and after methodology. They employed a within countries estimation on a number of developing nations like Zambia, India and Bangladesh, while considering some years before and after trade liberalization chapter. They approximate on average increase in GDP per capita increases varies between 1.2% and 2.6%, so the conclusion was that trade reforms did make a very imperative contribution to sustained economic development across countries under study.

In Zimbabwe a study carried out by Chitiga (2004) employed a micro simulation computable general equilibrium methodology to find out the impact on poverty of trade liberalisation. The model was adopted from Laval university team. It contains four factors of production, five sectors of the economy, 13757 households and data was from 1995 to 2004. Her findings were that tariffs were supposed to be completely removed only in agriculture sector since it

contributed to most export extensive sector. Factors used intensively in the agriculture sector benefited immensely from the removal of tariffs but however other factor's remuneration was reduced.

More recently the Zimbabwe National Statistics Agency (ZIMSTAT) conducted the 2011/2012 Poverty Income Consumption and Expenditure Surveys (PICES) and produces a poverty report. Previously these surveys were called Income Consumption and Expenditure Surveys (ICES). Per capita consumption expenditure approach was adopted in measuring poverty incidence. The analysis revealed that poverty is far worse in rural areas than in urban areas in Zimbabwe. It was observed that 62.6 percent of Zimbabwean households are deemed poor whilst 16.2 percent are in extreme poverty. About 76 percent of the rural household are poor compared with 38.2percent in urban areas. About 30.4 percent of rural people are in extreme poverty compared with only 5.6 percent in urban areas.

2.3 Conclusion

The evolution of trade theory, from old to new trade theory seems to support trade liberalization. Trade liberalization, according to various authors has been seen as the engine for economic growth of the countries and impact favourably to ameliorate poverty. The empirical studies show that trade liberalization has a favourable impact on average income of the poor and hence impacts favourably on poverty but at some point some critics arose like Rodrik and Rodriguez (2001). The researcher have inquired into theories of trade so as to understand why countries liberalize trade and this state of literature is in line with assertions that often informally discussed by proponents of free trade as a universal policy prescription to ameliorate poverty. The next chapter is on methodology which gives an explanation of how data will be analyzed.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The previous chapter was centred on theoretical and empirical literature. This chapter reveal the methodology the researcher used in the study. Specifically it looks at the specification of the model, proceeds to justification of variables impeded in the model, continue to diagnostic tests, and will conclude with data types and sources. The estimation technique and variable proxies will come from this chapter.

3.1 Model Specification

The researcher used the ordinary least squares method to estimate the coefficients of trade liberalization and other variables that impact on poverty in Zimbabwe for the period of 1986 to 2012. The researcher adopted the model from Thurow (1967) who models causes of poverty in Latin America. Also the researcher adopts the idea of Topalova (2010) of regressing trade liberalisation directly on poverty.

The model is specified as:

$$PVTY = \beta_0 + \beta_1 GDPC + \beta_2 BD + \beta_3 UNE + \beta_4 TL + \beta_5 INF + \beta_6 PEE + \mu_T$$

Where: PVTY-Poverty (in percentages)

GDPC- Gross Domestic Product per capita (growth rates)

BD-Budget deficit (growth rates)

UNE-Unemployment rate (percentages)

TL-Trade liberalisation (ratio of imports plus exports to GDP)

INF-Inflation rate (percentages)

PEE-Public Education Expenditure (as a percentage of GDP)

B's –Parameters

μ_T =White noise error term

3.2 Justification of Variable

In this study poverty severity index in percentage is to be used as surrogate measure of absolute poverty .The index is computed from national income, consumption and expenditure

surveys in Zimbabwe. It is the square of the poverty gap index (an improvement from headcount index which measure the depth of poverty by considering how far the poor fail to meet the poverty line). So here the poverty severity index will be the weighted sums of poverty gaps as a proportion of the poverty line. Regressors are justified next.

3.2.1 Trade liberalization (TL)

Trade liberalisation is measured as the ratio of imports plus exports to GDP. Sowa (2002) put forward two sources in which trade reforms can bring about poverty alleviation. Firstly, he concluded that reforms result in poverty alleviation if it restructures financial institutions in such a setting that makes the poor have access to credit. Secondly he said that poverty can only be reduced if the economy is endangered by growth. Trade liberalization affects poverty through its effects on income distribution. Greatest gains from trade would come by integrating a developing country with a developed one because conditions of production differ across them.

Trade protectionism has unfavourable impact on poverty in developing nations. An open and simple trade policy can lead to external discipline and reduce imperfection such as rent seeking behaviour that normally hurt the poor. Restricted trade benefits the rich people only, for instance protecting imports competing sector of the economy which is owned by few elite. So the expected sign is negative.

3.2.2 Gross Domestic Product per capita (GDPC)

The variable was recorded at current market price of good and service produced within a nation divided by the population. GDP per capita is the crude measure of the standards of living of people in an economy. According to Smith and Todaro (2011), if GDP per capita is high it means standards of living of people in a country are also high. As a result the poor tend to spend additional income on improved nutrition, education for their children and improve their housing conditions. Hence, people are better-off when GDP per capita is high. Carroll and Weil (1994) confirm that lagged values of increases in income seem to explain higher standards of living. The expected sign is negative.

3.2.3 Budget Deficit (BD)

It measures the excess expenditure over what the government have budgets and normally financed by borrowing or increasing tax, it is to be in growth rates. Tax hikes reduce

household disposable income and thereby limiting consumption expenditure. Friedman (1953) argued that tariffs, corporate tax, and income tax provide perverse incentives toward wealth creation and hurts the poor more through reducing their potential income. Such tax burdens are regressive and encourage low productivity, little savings, and investments that would otherwise lift the poor out of poverty. So the expected sign is positive.

3.2.4 Public Education Expenditure (PEE)

The variable measure the amount spent on education as a percentage of GDP. World Development Report (1990) says poverty is directly linked to education. The report pinpoint that education promotes innovation and it was underlined as a powerful tool to break poverty cycle. Public education expenditure is seen as the engine for human capital investment. The more the government expenditure is allotted to education, the faster the economy develops (Capolupo, 2000). The importance given to public education expenditure in this analysis is in the recognition of the long perceived fact that attention on education and training has proved to be one of the most serious constraints to economic development in Zimbabwe. Hence the postulated relationship between public education expenditure and poverty is negative.

3.2.5 Unemployment rate (UNE)

In Zimbabwe unemployment rate is the percentage of persons aged 16 to 65 years who during a reference period are without work and are currently available for work in the economically active population (ZIMSTATS, 2011). Unemployment affects money wage income of individuals and also affects the tax base. It might be a fact that potential income of the government that was supposed to be redistributed will not be available and the poor remain extremely poor. In this study positive relationship between unemployment and poverty is expected.

3.2.6 Inflation rate (INF)

The rate comes from Consumer price index (CPI) which is the percentage change in the price of the 'Basket' or a set of goods and services selected to be representative of the consumption pattern of an average family in any country. According to consumer council of Zimbabwe (2003) there is a negative relationship between CPI and purchasing power and a positive relationship between CPI and cost of living. When CPI raises so does the cost of living and purchasing power falls. CPI is used to measure the poverty datum line in Zimbabwe because prices, quantity, and outlets used are the same as those from CPI (ZIMSTATS; 1999).

Inflation rate affects the minimum need basket which is consistent with the preference for the poor households. So in this study a positive relationship is expected between poverty and inflation rate.

3.2.7 Error term

This is a random (stochastic) variable that has well-defined features. The white noise error term may well signify all those variables that affect poverty but are not taken into account.

3.3 Diagnostic Tests

Before the regression is run the researcher is going to perform some diagnostic tests .The diagnostic tests that are to be done include: Unit Root Test (Augmented Dickey Fuller), Co-integration test, Autocorrelation Test and Multi-collinearity test.

3.3.1 Unit Root Test

With the development of modern time series modelling, unit root test on all economic variables are done to determine their stationarity. This is done to avoid the problem of spurious regression when non-stationary series are regressed in stochastic models (Badawi, 2003). A variable is said to be stationary if its mean and variance are time invariant and its covariance is based on the lag between times periods not the actual time it is calculated (Gujarati, 2004). To test the stationarity of variables, standard the Augmented Dickey Fuller (ADF) proposed by Dickey and Fuller (1979) is to be used. If a variable is not stationary at its own level tests should be done when the variable is differenced.

3.3.2 Co-integration

If two or more variables are not stationary at level but their linear combination (the residual term) is stationary, the conclusion is that these variables are co-integrated (Maddala, 1992) Co-integration test is meant to find the long-run relationship among variables. The study uses the Engle-Granger approach to test for co-integration.

3.3.3 Autocorrelation Test

An examination for autocorrelation will also be conducted in chapter four by computing Durbin Watson statistic. According to Gujarati (2004) “autocorrelation is correlation between members of series of observation ordered in time (as in time series data) or space (as in cross-sectional data)”. The DW test statistic is going to be employed to test for serial correlation. If the DW statistic obtained is approximately a neighbour of 2 there is no serial correlation.

3.3.4 Multi-collinearity

Multi-collinearity is the existence of a perfect or exact linear relationship among some explanatory variables in the regression model (Gujarati, 2004). Multi-collinearity will be checked by observing pair-wise or zero-order correlation between explanatory variables. When zero order correlation among the explanatory variables is greater than 0.8 it indicates that there is multi-collinearity and the remedial measure will be dropping a variable.

3.4 Data type and source.

This research is going to use secondary data. Secondary data is data which is already collected. Secondary data is to be used because it is less expensive as compared to the primary data which requires huge financial resources for survey undertaking. Secondary data used for trade liberalization and poverty was taken from the official publication and reports of Zimbabwe National Statistics Agency, International Monetary Fund (IMF) websites, World Bank Databank and Penn world tables. Data gathering process did not involve travelling and booking for appointments, all which consume a lot of time. Data is already collected and will normally be cleaned for errors and stored in electronic formats hence the researcher will spend time analysing data. However, secondary data might not have been collected for that particular purpose; hence certain information might not be enshrined in that source. Another defect is that the data is subject to error of measurement and it is difficult to check for accuracy. However, the researcher will minimise these few defects by putting first priority on authoritative sources.

3.5 Conclusion

In this chapter, the researcher gave an apparent and concise description of how the study will be carried out. Initially the model was specified, next variables were justified then diagnostic tests briefed and finally data sources and types were outlined. An econometric package called Econometric view 4.0 will be used and various tests mentioned in the chapter will also be carried out to test for existence of econometric problems. The model developed is henceforth expected to come up with an in-depth analysis of the impact of trade liberalisation on poverty. In the next chapter data presentation, analysis and interpretation are discussed.

CHAPTER FOUR

RESULTS PRESENTATION AND ANALYSIS

4.0 Introduction

Until some econometrics tests are conducted the general view that trade liberalisation reduce poverty or worsen poverty are not valid to econometricians or researchers who possess capacity in establishing relationship of economic variables. This chapter will take a stance by presenting and analyzing the findings of the regression model specified in the previous chapter. The chapter presents the results and interprets factors that affect poverty particularly trade liberalization. The researcher will find the regression results. The significance of variables emanate in this chapter. Selected data in appendix to be in form of tables after utilising Econometric View version 4. In addition to that economic interpretation after some diagnostic tests is apparent to ensure that model conforms to the assumptions of the ordinary least squares and stationarity prerequisite. Specifically outlined in this chapter are results of unit root test, co-integration, multi-collinearity, and autocorrelation. The analysis will be conducted bearing in mind that the study is to investigate correlates of poverty in Zimbabwe.

4.1 Diagnostic tests

Before the regression is run the researcher is going to use diagnostic test. The diagnostic tests that are to be done include: Unit Root Test (Augmented Dickey Fuller), Co-integration test, Autocorrelation Test and Multi-collinearity test.

4.1.1 Unit root test results

To ascertain the level of stationarity for variables in the model Augmented Dickey Fuller test was employed to test for stationarity. The null hypothesis says there is unit root problem against the alternative hypothesis of stationarity of variable. The results show that poverty, trade liberalization, gross domestic product per capita growth, public education expenditure, inflation, and budget deficit are stationary at level while unemployment is stationary after first differencing. The table below depicts ADF statistic versus ADF critical and the order of integration for variables. Full details of results of the unit root tests are in Appendix 2A.

Table 4.1: Unit Root test Results.

Variable	ADF Statistic	Critical value	Order of Integration
BD	-4.8211***	1% -3.7076 5% -2.9798 10 % -2.6290	I(0)
PVTY	-3.2961**	1% -3.7076 5% -2.9798 10 % -2.6290	I(0)
GDPC	-3.8751***	1% -2.6560 5% -1.9646 10 % -1.6226	I(0)
TL	-3.6022**	1% -3.7076 5% -2.9798 10 % -2.6290	I(0)
UNE	-4.7043***	1% -2.6603 5% -1.9552 10 % -1.6228	I(1)
PEE	-2.9836**	1% -3.7076 5% -2.9798 10 % -2.6290	I(0)
INF	-4.9986***	1% -2.6560 5% -1.9646 10 % -1.6226	I(0)
Residual	-4.8273***	1% -2.6560 5% -1.9646 10% -1.6226	I(0)

Gujarati (2004) ascertained that for stationarity of variable the absolute value of the ADF statistic should exceed the ADF critical value at diverse levels of significance. From Table 4.1 above the statistic under the Augmented Dickey Fuller for inflation, GDP per capita growth, and budget deficit exceed the critical values at order of integration zero, hence these variables become stationary at level at all levels of significance as shown by three asterisk. Meanwhile PEE, TL, and PVTY are also stationary at level though at 5% and 10% level of significance as shown by two asterisks. Unemployment is stationary after first differencing at all significance levels 1%, 5%, and 10%. Since exceptionally unemployment is integrated at order one we test for cointegration.

4.1.2 Co-integration Results

To avoid spurious results co-integration test was undertaken by conducting a unit root test for the residuals generated. The results revealed that residuals are stationary at level which signifies that there is long run relationship between poverty and its correlates since the ADF statistic is greater than the critical value. Though variables are not stationary at level their linear relationship is, hence the ordinary least squares can be applied.

4.1.3 Autocorrelation Results

The Durbin-Watson (DW) statistic was utilized in this research to ascertain that the model is safe from a first order serial correlation. In OLS if it is present this will overestimate R^2 and simultaneously invalidates t and F tests hence likely to lead to misleading results. Table below shows serial autocorrelation results. The null hypothesis will be stated as: there is no autocorrelation against the alternative of autocorrelation among residuals.

Table 4.2: Durbin Watson Table: Serial autocorrelation results

Evidence positive of autocorrelation	Indecision zone	No Autocorrelation	Indecision Zone	Evidence negative of autocorrelation
0	0.7380	1.7430	2.1298	3.262
		1.8702		4

Critical values of the DW were extracted at 1% level of significance since 5% level of significance DW statistic lies in the indecision zone. The DW statistic (d) of 1.8702 lies in the zone of no autocorrelation, so this signifies the absence of serial autocorrelation (positive or

negative). The researchers do not reject the null hypothesis of no serial autocorrelation among residuals.

4.1.4 Multi-collinearity

This is the presence of a linear relationship among the explanatory variables. As a result of the stochastic nature of most explanatory variables correlation and interrelationships might exist. It has the effect of making equation indeterminate. When multi-collinearity is there the remedy is to drop the variable. Table 4.3 below shows the zero order correlation co-efficient of explanatory variable.

Table 4.3: Multi-collinearity among explanatory variables

	BD	GDPC	TL	UNE	PEE	INF
BD	1	-0.1469	-0.0678	0.1006	-0.2017	-0.0993
GDPC	-0.1469	1	0.2565	-0.2522	-0.4728	-0.7203
TL	-0.0678	0.2565	1	0.2422	0.1031	-0.2116
UNE	0.1006	-0.2522	0.2422	1	0.3574	0.2470
PEE	-0.2017	-0.4728	0.1031	0.3574	1	0.5934
INF	-0.0993	-0.7203	-0.2116	0.2470	0.5934	1

(Full details are in Appendix 2C)

Since the pair -wise correlation co-efficient for all explanatory variables is less than 0.8 we can conclude that multi-collinearity is not severe so the researcher adopted the do nothing approach. This means that there is no linear relationship among the explanatory variables and it is easy to establish the influence of each one variable on the dependent variable (poverty) separately.

4.2 Results presentation

Using the model specified in the previous chapter the researcher regress time series data of trade liberalisation and other determinants on poverty for the period 1986 to 2012. The results are presented in Table 4.4.

Table 4.4: Regression results

Dependant variable: PVTY

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.9141	3.5306	-0.5421	0.5937
GDPC	0.3226	0.1405	2.2969	0.0326
BD	0.0580	0.0165	3.5185	0.0022
UNE	0.3767	0.0985	3.8245	0.0011
TL	22.3748	5.8948	3.7957	0.0011
INF	1.6058e-07	3.1261e-08	5.1369	0.0001
PEE	-0.3167	0.1234	-2.5667	0.0184

(Full details found in appendix 3)

R-squared 0.7908

Adjusted R² 0.7280

F-statistics 12.5977

Prob-F statistic 0.000007

Durbin- Watson 1.8702

Hence the estimated equation can just be represented when appropriate substitution is done as follows:

$$\text{PVTY} = -1.91 + 0.32 \text{ GDPC} + 0.06 \text{ BD} + 0.38 \text{ UNE} + 22.37 \text{ TL} + 1.61\text{e-}07 \text{ INF} - 0.32 \text{ PEE}$$

4.3 Interpretation of Results

Significance of the whole model is revealed by the F-statistic and the predictability capacity was shown by the R² (the coefficient of determination). The F statistic value of 12.5977 far more exceeds the required rule of thumb of 5. As ascertained by Gujarati (2004) it is apparent that the null hypothesis of coefficients being simultaneously equal to zero is rejected. By the same token the p-value of F-statistic is less than 0.05 which equally signifies the significance of the whole model. Meanwhile since the observed R² is 0.7908; this shows variables in the model better explains the variability of the dependent variable. Approximately 80 percent of

the variation in the regressed is due to variation in six explanatory variables that is GDPC, PEE , TL, UNE , INF, and BD and the remaining 20 percent is due to other stochastic factors. After adjusting for the degree of freedom, the R^2 (0.7280) fall short of the pure value as expected and it's just a penalty of adding more explanatory variables and give a clear picture of explanatory power of the model.

The regression results show that all variables except public education expenditure are positively related to poverty. This means that an increase in any one of these except public education expenditure will increase poverty. The significance of variables is measured by the t-statistic values. A variable is said to be significant if its absolute t-statistic is greater than two or a neighbour of 2. From the results all variables are significant in explaining variation in poverty since all t-statistic are greater than 2.

The study's main focus is on the coefficient of trade liberalization (TL). The results have shown that the coefficient of TL is positive and significant since p-value is 0.0011 and the t-statistic (3.7957) is greater than 2, hence the relationship is significant at all levels. This suggests a unit increase in trade liberalization result in 22 units increase in poverty. The negative relationship was expected between poverty and trade liberalization. However, the direct relationship was an outcome between the two variables. There is strong evidence that trade liberalization for the period 1986 and 2012 led to increased poverty in Zimbabwe.

Such a finding concurs with the results of Jazairy *et al* (1992) who studied ten Sub Saharan African countries. The study noted an increase in poverty levels in the region from 18, 2 million to 36; 2 million for the period of 1965 to 1992. The conclusion, therefore, was that structural adjustment programs have a stake in the worsening pattern of poverty in the region. This may have been attributed to poor macroeconomic management, policy inconsistency, and policy reversal. Principally if trade liberalization is not done for the sake of its own and done in perfect way while utilising complementary policies to ensure the gains are maximised and losses are minimised it can extremely hurt the poor, (McColluch , 2005)

Budget deficit is also positively related to poverty meaning to say an increase in deficit will increase poverty levels. In a significant manner a unit increase in budget deficit will lead to 6 units increase in poverty. The budget deficit is normally financed by borrowing or increasing tax. Tax hikes reduces households disposable income and thereby limiting consumption

expenditure. Tax burdens are regressive and encourage low productivity, little savings, and investments that would otherwise lift the poor out of poverty.

Basing again on the regression, results have shown that the coefficient of public education expenditure (PEE) is negative and significant. There is strong evidence that public education expenditure is negatively related to poverty in Zimbabwe. Public education expenditure plays a vital role in economic performance and poverty. This result reveals that a unit increase in PEE result in thirty one units decrease in poverty. This concurs with the results of Diamond (1989) that use 42 developing countries and investigated the effect of different types of government expenditure on poverty. His findings were that social expenditure has significant effect on poverty in the short and long run. Findings also concur with ZIMSTAT (2012) PICES findings that an extra dollar ploughed into the development of schools will likely benefit the poor. Blejer and Khan (1994) carried out the same study, but in different countries. They concluded that those expenditures, which compliment with private sector, increase growth and might reduce absolute poverty in the long run. Thus the significant negative relationship is consistent with theory and empirics.

As was expected percentage change in unemployment rate (UNE) is positively related to poverty and is significant at all levels since the t-statistic is greater than the 2-t rule of thumb and the p-value is less than 0.05. When UNE increases poverty increases. This may be attributed by loss of tax base by the government for the provision of public goods and social safety nets. A unit increase in UNE lead to about 38 units increase in poverty. This conforms to findings of Roemer and Gugerty (1997) that conducted a study on causes of poverty in Australia and found unemployment to be a major factor that impact on poverty since about 16.6% of the unemployed in that survey were below the poverty datum line. They finally draws that UNE and poverty are positively related since there is a trade off between price levels and unemployment. These findings emphasise and tally with ZIMSTATS (2011) labor force survey that unemployment rates were highest for the youths, those with secondary education and higher education and residing in urban areas hence urban poverty. So the positive relationship between poverty and unemployment is consistent with theory and empirics.

Percentage change in inflation rate (INF) is positively related to poverty and is significant at all levels of significance. When INF increases poverty increases. A unit increase in INF lead

to a $1.6058e-07$ units increases in poverty. These outcomes are in tandem with Deaton (1997) who treated the household as the basic unit of which poverty is defined, he asks how the price changes intrude on poor households given their consumption bundles. These findings are also supportive of Levinsohn, Berry and Friedman (1999) who studied changes in Indonesian price indices by class of household. They found that the poor suffered more from inflation in 1997 than the non-poor, although with significant geographical variations. These findings are also in support of Hardwick (1999) who concludes that inflation is unfair, reduces output growth and investment, and retard international trade. Inflation can render the employed casualty of poverty. Hence the positive significant relationship of poverty and inflation is line with empirics of Deaton *et al* (1997).

Per capita GDP growth has a significant t -statistics of 2.297 which is more that the required value of 2. The inverse relationship with poverty was being expected. *Ceteris paribus* a unit increase in GDPC will lead to about 32 units increase in poverty. These outcomes are in tandem with Bourguignon (2004) who studied the relationship between per capita income growth and poverty. He identifies inequality in distribution of income as the main causes of poverty in most growing economies. By the same token gini coefficient of Zimbabwe according to PICES 2011 is 0.423, constructed using real consumption per person and using population weights to reach nationally representative estimates. Although the gini index for Zimbabwe is lower that of South Africa of 0.674 it is within the range of countries considered being highly unequal where the rich benefits from fruits of increase in national output at the expense of the poor. Accordingly there appears to be disparity in equality in distribution of income between rural and urban areas in Zimbabwe. GDPC contradicts to *a priori* expectation that if GDP per head increases, poverty is to be reduced since standard of living improves. However, it conforms to empirics of Bourguignon (2004).

4.4 Conclusion

The diagnostic results showed a long run relationship of the dependent variable (poverty) and trade liberalization and other variables used in the current study. The empirical examination in this study exposed that adopted explanatory variables greatly explains the variation in poverty in Zimbabwe between 1986 and 2012. All variables except public education expenditure have positive relationship with poverty. Consolidated results in this study form the basis for policies recommendation and conclusion. All variables pose significant changes on poverty and are to be given policy option in the next chapter.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND POLICY RECOMMENDATIONS

5.0 Introduction

The study's main aim was to establish how trade liberalisation impacts on poverty. This chapter will also go beyond this by analysing other correlates of poverty using a developed model with annual data for the period in question. In a more general way conclusions will also be aired to re-emphasise the study outcomes. Research findings were used to come up with policy recommendations for stakeholders like local and central government, development partners and the community at large. Synthesis of recommendations, suggestion for future study, policy options will be made in an effort to relieve poverty in Zimbabwe.

5.1 Summary

The purpose of this research was to determine the impact of trade liberalization on poverty in Zimbabwe. This study has contributed to both theoretical and empirical literature review on the impact of trade liberalization on poverty. The results suggest a positive relationship between trade liberalization and poverty. The objectives of this study were achieved through the use of Classical Linear Regression Model (CLRM). The main finding from the study was that trade liberalization in a significant manner unfavourably impact on poverty. The study was also able to find out that poverty has got other variables that affect its variability in Zimbabwe. The researcher concluded that inflation, unemployment, budget deficit, gross domestic product per capita growth positively affects poverty; hence these explain the variability of poverty in Zimbabwe. Public education expenditure was found to be negatively related with poverty and consistent with empirical evidence.

5.2 Conclusions

The concept of poverty is at the centre stage and is an interesting subject to many researchers. However, little has been done on the effect of trade liberalization on poverty. Trade liberalization has noted to have a great effect on poverty. The positive relationship between the two also strengthens the idea that fiscal discipline, policy consistency, good governance and complementary policies are important for trade liberalization to work effectively for the benefit of the poor. However, policy options should not be centered on trade liberalization

alone since other correlates have been found to be significant in explaining poverty. These include unemployment, inflation, public education expenditure, budget deficit and, gross domestic product per capita growth.

5.3 Policy implications

Having accepted the fact that trade liberalisation affect poverty, policy recommendations by the researcher to the government, non-governmental organisation and the communities are suggested. To assist Zimbabweans to benefit from trade liberalisation, policy prescriptions are discussed next while not forgetting to derive policy options from other poverty correlates. As noted by Collier and Gunning (1992), if trade liberalisation is implemented in deficient of complimentary policies, fiscal policy reforms and good governance it will not always provide necessary motives for export led growth and will not improve the average income of the poor.

When the government of Zimbabwe is to liberalise trade again, complementary policies should follow. For instance effective social dimensions of adjustment programmes should be implemented. Specifically social welfare programmes (supplementary feeding schemes, food subsidies and food exemptions), training and employment programmes (which aim at training of retrenched millions), agriculture research and extension service should be used to lessen adverse effects of trade liberalisation. All these complementary policies ensure that the losses to the poor are minimised and while gains are maximised during and after trade liberalization.

The main problem that the Zimbabwean government faced in the early 1990s was to liberalise trade when the poor didn't have access to land and credit. Though it might be under debate, the land reform programme inevitably gives many people access to means of production particularly the landless poor. This will also allow the poor people to participate in economic activities and benefit from fruits of increase in gross domestic product. The researcher suggests the government to harness the land reform programme and follow success witnessed by South Korea and Taiwan.

Also to reduce unemployment particularly for urban poor access to credit through micro-finance cash disbursement should be increased to the marginalised or the informal group who do not possess qualities of getting loans. The Reserve Bank of Zimbabwe should regulate microfinance with lightly, since this will increase number of microfinance and improve economic activity particularly for the poor. So to this end the government should believe

trade liberalization on its own sake but should also introduce complementary policies that enable the poor to maximise benefits while minimising losses.

Results confirm that unemployment has a great positive impact on poverty. Unemployment needs to be identified as a risk to national wellbeing and therefore employment creation has to be incorporated into poverty reduction strategies. The long term impacts of unemployment on poverty have obtained limited concentration and questions stay put regarding, among others, how the impact emerges over time. The diverse dimensions of unemployment at country level needs to be understood better.

High levels of unemployment can be trimmed down by giving rural migrants a rationale to stay in rural areas. Agriculture takes part in its contribution to economic growth. If more people are employed on farms or reside in the rural areas working on their small holder plots and trade the excess then they contribute to economic growth while at the same time helping to condense high unemployment rates due to rural to urban migration. National Social Security Association (NSSA) should extend services to those in the informal sector in order to provide them with social security even after trade liberalization policy that gives birth to the informal sector.

Government ought to put in place schemes to allow companies in distress to have a loan of funds to maintain them buoyant in order to circumvent company closures which may in turn lead to hefty numbers of unemployed people to join the already jobless millions. This way the company's productive capacity increases. Government policies should consider not only aggregate economic impact but the distribution of employment. Socially responsible venture capital and microcredit initiatives can foster employment generating activities that complement local ethics. Government and non-governmental organisation should provide loans to individuals for them to start business like poultry, mining, and market gardening.

To avoid inflationary environment the Zimbabwe government should continue with the multicurrency regime or it should join the currency union like the Rand union rather than to introduce local currency in the short term because the high inflation rate affects the minimum need basket which is consistent with the preference for the poor household. Of equal important to reduce or eliminate budget deficit the government of Zimbabwe should try and lessen debt obligation by reducing recurrent expenditure.

The government should harness foreign direct investment by ensuring stable political and economic environment so that the economy can create jobs opportunities hence reducing unemployment rate and reduce poverty. Investor confidence should be restored so as to attract investment and encourage savings. The Zimbabwe Investment Authority (ZIA) should be capacitated to attract foreign investors and be empowered to monitor the implementation of the approved investment projects.

Human capital in form of education and skills is another example of asset ownership. An effective poverty reduction strategy should focus on promoting opportunities for the educated. Public policy should therefore promote wider access to educational opportunities for girls as well as boys as a way of increasing income-earning potential for more people. But since greater access to education is no guarantee that one will break the poverty cycle. An extra dollar ploughed into the development of rural district councils will likely benefit the poor. Municipalities should also give particular attention to the construction of more primary and secondary schools as their share in the whole sector is still very small. The Zimbabwe government should also continue to invest in education, particularly in rural areas where school enrolment rates are low and poverty is most widespread among school going children. Most households in rural areas are less likely to invest in their children's education due to cost constraints. Central government still thus has a significant role to play in supporting rural education. Effective policy mechanisms should also be put in place to ensure that children are not sent away from school for finance related reasons.

As has been revealed per capita GDP growth without considering distribution of income would not reduce poverty. A sizeable re-distribution of income is needed using a two stage poverty reduction strategy that is high growth and equal distribution of income. Direct progressive income taxes should focus on personal and company incomes of which the rich pay more of their income in taxes than the poor. Taxation on wealth (stock of accumulated assets and incomes) typically must involve personal, corporate property taxes and inheritance taxes which in either case must involves heavy burden on upper income groups.

The government and nongovernmental organisation should employ direct transfers and subsidies while not making the poor unduly depend on food subsidies and direct transfer supposedly in form of workfare programme like food for work. When development partners and the community at large see that the poor are getting a hand up rather than a handout these projects might receive public support. In programme such as these the poor must put to work

on building infrastructure such as roads from outlying areas to the markets areas so that the community at large will get access to the market while locally employed so as to reduce income poverty.

The researcher having provided policy prescription to policy makers, the government, development partners, and households it is certain and expected that adoption of these recommendations will considerably impact favourably on poverty severity.

5.4 Suggestion for future studies

On account of difficulties in accessing data, financial resources and time constraint the researcher feel that the research is not exhaustive. If data and information was easy to access this should have improved the strength of the model. There is need for further researches to find out other determinants that are not included in this research that affect poverty in Zimbabwe like inequality, government debt and government policies (indigenization). The researcher tried to gather data from different institutions in order to increase data reliability and to solve the problem of window dressed data by other publishing institutions.

The results obtained should not be viewed as conclusive but should stimulant further research on the link between trade liberalization and poverty in Zimbabwe. Further researches can also focus in the same line with this study in order to review, compare changes and effects of policies with time. Other methodologies like Computable General Equilibrium (CGE) could also be used so as to establish the strength of the relationship between trade liberalization and poverty for different sector of the economy. Poverty researches should also be done at household levels and call upon development partners to sponsor those project to succeed. Finally by enhancing the true representation of the whole population and taking rural population the future researchers should use primary data so that poverty cannot be exaggerated by the urban extravagance.

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APPENDICES

Appendix 1: Data set

YEAR	Pvty (%)	GDPC(g/rate)	BD(g/rate)	INF (%)	PEE (%)	TL(ratio)	UNE (%)
1986	4.9	-1	-2.69	14.2	6.775408	0.455748	7
1987	5.5	-2	44.14	11.9	7.136607	0.452946	3
1988	10.3	4.3	9.31	7.1	6.597207	0.441066	5.4
1989	5.4	3	48.61	11.6	7.024387	0.450625	6.3
1990	10.1	3.7	-29.74	15.5	6.803759	0.456593	7.8
1991	15.5	3.9	40.34	23.3	6.103703	0.510515	11
1992	15.7	-11.2	7.03	42.1	6.341591	0.637125	12.8
1993	18.2	-1.4	54.72	27.6	4.048163	0.631671	13.4
1994	21.8	2.3	18.53	22.3	6.095194	0.711195	14.7
1995	23	-3.1	84.75	22.6	6.57324	0.73	16.9
1996	23.2	6.2	-11.11	21.4	7.356384	0.708253	17
1997	23.4	2.5	12.52	18.8	7.954386	0.756723	19.5
1998	25.1	0.8	-11.15	31.7	7.404614	0.841926	20.3
1999	24.1	-3.3	16.15	58.5	7.482773	0.897136	25.6
2000	21.4	-7.9	77.78	55.8	9.471112	0.715123	26.3
2001	22	-3.8	87.54	71.9	7.630246	0.460958	26.9
2002	38	-5.94	256.06	133.2	2.016626	0.567311	24.9
2003	15.1	-7.46	-18.03	365	3.265451	0.294379	26.4
2004	14.4	-4	17.05	350	4.400188	0.660751	28.3
2005	17.6	-4.06	-10.41	585	4.223711	0.564939	30.3
2006	16.1	2.13	84.75	1281.1	7.892736	0.525396	32.4
2007	13.6	-4.6	-3.2	66212.3	45	0.807013	33.8
2008	34	-34.8	0.3	2.31E+08	37	0.437236	31.7
2009	23	7.27	1.3	-7.9	5.690104	0.6	31
2010	34	19.2	-0.5	3.1	7.50087	0.8	33
2011	19.6	10.53	-2.3	3.5	8.41161	0.45	13
2012	20	10.7	-3.4	3.7	7.2346	0.9	11

Source: Zimbabwe National Statistics Agency (ZIMSTAT): National Accounts (1985-2012), Compendium of Statistics (1984-2012)

RBZ: Quarterly Economic & Statistical Review (2008)

World Bank Databank (2013)

Researchers' own calculations based on ZIMSTAT quarterly digest and compendium of statistics, World Bank Data bank, and Penn world Tables.

Appendix 2: Diagnostic tests

Appendix 2A: Stationarity tests

Unit Root Test for Budget Deficit (BD)

ADF Test Statistic	-4.821076	1% Critical Value*	-3.7076
		5% Critical Value	-2.9798
		10% Critical Value	-2.6290

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(BD)

Method: Least Squares

Date: 07/25/14 Time: 11:24

Sample(adjusted): 1987 2012

Included observations: 26 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BD(-1)	-0.984253	0.204156	-4.821076	0.0001
C	29.18798	12.99588	2.245941	0.0342
R-squared	0.491986	Mean dependent var		-0.027308
Adjusted R-squared	0.470819	S.D. dependent var		80.58447
S.E. of regression	58.62106	Akaike info criterion		11.05387
Sum squared resid	82474.29	Schwarz criterion		11.15065
Log likelihood	-141.7003	F-statistic		23.24277
Durbin-Watson stat	1.978072	Prob(F-statistic)		0.000065

Unit Root for Poverty (PVTY)

ADF Test Statistic	-3.296138	1% Critical Value*	-3.7076
		5% Critical Value	-2.9798
		10% Critical Value	-2.6290

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(PVTY)

Method: Least Squares

Date: 07/25/14 Time: 11:25

Sample(adjusted): 1987 2012

Included observations: 26 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PVTY(-1)	-0.558352	0.169396	-3.296138	0.0030
C	11.21093	3.517499	3.187188	0.0040
R-squared	0.311621	Mean dependent var		0.580769
Adjusted R-squared	0.282939	S.D. dependent var		8.455815
S.E. of regression	7.160340	Akaike info criterion		6.848795
Sum squared resid	1230.491	Schwarz criterion		6.945572
Log likelihood	-87.03434	F-statistic		10.86452
Durbin-Watson stat	2.396045	Prob(F-statistic)		0.003040

Unit Root Test for GDPc

ADF Test Statistic	-3.875092	1% Critical Value*	-2.6560
		5% Critical Value	-1.9546
		10% Critical Value	-1.6226

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDPC)

Method: Least Squares

Date: 07/25/14 Time: 11:28

Sample(adjusted): 1987 2012

Included observations: 26 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDPC(-1)	-0.775155	0.200035	-3.875092	0.0007
R-squared	0.374332	Mean dependent var		0.450000
Adjusted R-squared	0.374332	S.D. dependent var		11.94038
S.E. of regression	9.444740	Akaike info criterion		7.366495
Sum squared resid	2230.078	Schwarz criterion		7.414884
Log likelihood	-94.76444	Durbin-Watson stat		1.871611

Unit Root Test for TL

ADF Test Statistic	-3.602161	1% Critical Value*	-3.7076
		5% Critical Value	-2.9798
		10% Critical Value	-2.6290

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(TL)

Method: Least Squares

Date: 07/25/14 Time: 11:34

Sample(adjusted): 1987 2012

Included observations: 26 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TL(-1)	-0.750572	0.208367	-3.602161	0.0014
C	0.466409	0.128708	3.623784	0.0014
R-squared	0.350923	Mean dependent var		0.017087
Adjusted R-squared	0.323878	S.D. dependent var		0.196723
S.E. of regression	0.161759	Akaike info criterion		-0.731618
Sum squared resid	0.627981	Schwarz criterion		-0.634842
Log likelihood	11.51104	F-statistic		12.97556
Durbin-Watson stat	2.031771	Prob(F-statistic)		0.001430

Unit Root Test for UNE

ADF Test Statistic	-4.704310	1% Critical Value*	-2.6603
		5% Critical Value	-1.9552
		10% Critical Value	-1.6228

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(UNE,2)

Method: Least Squares

Date: 07/25/14 Time: 11:38

Sample(adjusted): 1988 2012

Included observations: 25 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(UNE(-1))	-0.947565	0.201425	-4.704310	0.0001
R-squared	0.479650	Mean dependent var		0.080000
Adjusted R-squared	0.479650	S.D. dependent var		6.306941
S.E. of regression	4.549530	Akaike info criterion		5.907103
Sum squared resid	496.7574	Schwarz criterion		5.955858
Log likelihood	-72.83879	Durbin-Watson stat		1.950980

Unit Root Test for PEE

ADF Test Statistic	-2.983558	1% Critical Value*	-3.7076
		5% Critical Value	-2.9798
		10% Critical Value	-2.6290

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(PEE)

Method: Least Squares

Date: 07/25/14 Time: 11:41

Sample(adjusted): 1987 2012

Included observations: 26 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PEE(-1)	-0.540690	0.181223	-2.983558	0.0065
C	4.929619	2.371920	2.078324	0.0485
R-squared	0.270553	Mean dependent var		0.017661
Adjusted R-squared	0.240159	S.D. dependent var		9.988186
S.E. of regression	8.706588	Akaike info criterion		7.239840
Sum squared resid	1819.312	Schwarz criterion		7.336617
Log likelihood	-92.11793	F-statistic		8.901621
Durbin-Watson stat	1.644883	Prob(F-statistic)		0.006453

Unit Root Test for INF

ADF Test Statistic	-4.998568	1% Critical Value*	-2.6560
		5% Critical Value	-1.9546
		10% Critical Value	-1.6226

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(INF)

Method: Least Squares

Date: 07/25/14 Time: 11:43

Sample(adjusted): 1987 2012

Included observations: 26 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF(-1)	-0.999714	0.200000	-4.998568	0.0000
R-squared	0.499857	Mean dependent var		-0.403846
Adjusted R-squared	0.499857	S.D. dependent var		65369984
S.E. of regression	46230178	Akaike info criterion		38.17387
Sum squared resid	5.34E+16	Schwarz criterion		38.22225
Log likelihood	-495.2603	Durbin-Watson stat		2.000000

Appendix 2B: Co-integration Results.

Unit Root tests for Residual.

ADF Test Statistic	-4.827279	1% Critical Value*	-2.6560
		5% Critical Value	-1.9546
		10% Critical Value	-1.6226

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RESIDUAL)

Method: Least Squares

Date: 07/25/14 Time: 11:57

Sample(adjusted): 1987 2012

Included observations: 26 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RESIDUAL(-1)	-0.964258	0.199752	-4.827279	0.0001
R-squared	0.482430	Mean dependent var		0.002495
Adjusted R-squared	0.482430	S.D. dependent var		5.289616
S.E. of regression	3.805475	Akaike info criterion		5.548461
Sum squared resid	362.0409	Schwarz criterion		5.596849
Log likelihood	-71.12999	Durbin-Watson stat		2.008232

Appendix 2C

Multi-collinearity results

	BD	GDPC	TL	UNE	PEE	INF
BD	1.000000	-0.146921	-0.067785	0.100582	-0.201745	-0.099330
GDPC	-0.146921	1.000000	0.256474	-0.252199	-0.472832	-0.720343
TL	-0.067785	0.256474	1.000000	0.242178	0.103137	-0.211617
UNE	0.100582	-0.252199	0.242178	1.000000	0.357440	0.246969
PEE	-0.201745	-0.472832	0.103137	0.357440	1.000000	0.593367
INF	-0.099330	-0.720343	-0.211617	0.246969	0.593367	1.000000

Appendix 3: Regression Results

Dependent Variable: PVTY
Method: Least Squares
Date: 07/25/14 Time: 12:22
Sample: 1986 2012
Included observations: 27

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.914108	3.530598	-0.542149	0.5937
GDP	0.322638	0.140467	2.296899	0.0326
BD	0.057967	0.016475	3.518505	0.0022
UNE	0.376699	0.098494	3.824598	0.0011
TL	22.37480	5.894751	3.795715	0.0011
INF	1.61E-07	3.13E-08	5.136861	0.0001
PEE	-0.316721	0.123399	-2.566643	0.0184
R-squared	0.790765	Mean dependent var		19.07407
Adjusted R-squared	0.727995	S.D. dependent var		8.291868
S.E. of regression	4.324549	Akaike info criterion		5.984907
Sum squared resid	374.0344	Schwarz criterion		6.320864
Log likelihood	-73.79624	F-statistic		12.59775
Durbin-Watson stat	1.870152	Prob(F-statistic)		0.000007

Appendix 4: Estimated model results

$$\mathbf{PVTY = -1.914108385 + 0.3226380596*GDPC + 0.05796653115*BD + 0.376694059*UNE + 22.37479504*TL + 1.605829648e-07*INF - 0.3167212057*PEE}$$

APPENDIX 5

Table1: Trade liberalization events

PRERIOD	TRADE LIBERALISATION EVENT
1986 to 1990	Zimbabwe First Five Year National Economic Development Plan
1990	Export Retention Scheme(ERS) Open General Imports Licences(OGIL)
1991	ESAP and Zimbabwe Second Five Year National Economic Development Plan(both to span for 5 years)
1993	Foreign currency denomination accounts
1994	Export Surcharge Tax reduced to 15% from 20%(January) and reduced to 10% in August
1996-2000	Zimbabwe Programme for Economic and Social transformation(ZIMPREST) and WTO
2001	Millennium Economic Recovery Programme(MERP), Lome Convention
2003	National Economic Recovery Programme(NERP) and the look east policy

Source Chitiga (2004)