Institut für Wirtschaftswissenschaften

Influence of Globalisation on Absolute Poverty: A Panel Data Study

Wissenschaftliche Mustervorlage – Englische Masterarbeit

Referent (Gutachter): Prof. Dr. Max Mustermann

Betreuer: Alex Mustermann

Erstprüfer: Gerhard Mustermann

Zweitprüfer: Sabine Mustermann

Vorgelegt von: Milena Fischer
Matrikelnummer: 111 111
Adresse: Kurfürstendamm 1, 11719 Berlin
E-Mail: fischer@gwriters.de
Telefon: +49 30 8093323-26
Studienfach: Wirtschaftswissenschaften
Wintersemester 2022/2023

Berlin, 01.09.2022

Table of Contents

List of Abbreviations

GDP Gross Domestic Product

GNI Gross National Income

ICT Information and Communication Technology

PPP Purchasing Power Parity

Influence of Globalisation on Absolute Poverty – A Panel Data Study

Chapter 1: Introduction

Global governments have developed numerous strategies to curb poverty levels and to enhance the quality of life of their citizens for many decades. However, poverty remains an issue around the world as there are poor individuals in developed and developing countries, although their poverty levels differ. Researchers have argued that globalisation has a significant impact on the world's poor and this has ignited a heated debate because some intellectuals support it whilst others claim that there is no significant correlation between poverty and globalisation. There are several definitions of globalisation, but according to Dollar and Kraay (2004), it is the process by which various nations across the world become closely integrated, and they further assert that several researchers have portrayed globalisation as either a solution for, or a cause of. poverty. Poverty is defined a situation in which an individual cannot comfortably satisfy his/her basic needs and for that reason, Dollar and Kraay (2004) propose that abject poverty is the lowest imaginable extreme and is associated with humiliation and misery. Absolute poverty is the worst level of poverty and the most hopeless situation that an individual can experience. Economic growth is the primary channel of globalisation that influences poverty, according to Heshmati (2007) because globalisation allows countries to open their borders to investors from other parts of the world, leading to increased trade and economic activity, factors that subsequently increase the income and living standards of individuals. However, an economy that experiences increased economic activity as a consequence of globalisation does not guarantee decreased poverty; because globalisation can also increase inequality, especially in developing nations, leading to increased poverty (Ganuza et al., 2002). Some researchers suggest that the increased trade prompted by globalisation benefits the poor but Ganuza et al. (2002) argue that participation in business requires specialist skills, which are scarce in developing nations. Therefore, although some researchers believe that globalisation is a solution to poverty, others perceive that it mainly benefits developed nations whilst disadvantaging developing countries because it entrenches poverty in their economies.

Many researchers have attempted to support their belief regarding how globalisation influences absolute poverty in developed and developing nations worldwide but none has conducted reliable research to show the real influence of globalisation on poverty, owing to data limitations. The dearth of reliable data has made it impossible for researchers to offer conclusive findings on the association between absolute poverty and globalisation, so that most results are based on theoretical assumptions. Research has shown that globalisation influences poverty in the short term, whether it influences the growth of a nation's economy or not. Growth is identified by an increase in the average real income is noticed, while abject poverty only relies on the real incomes of the poor.

Several authors have published books addressing the impact of globalisation on poverty over a long period of time, one of the most exceptional publications is entitled "Does globalisation help the poor?" This book was produced by The International Forum of Globalisation. It is evident from the findings of this study that globalisation does not help the poor and it can be argued that it increases absolute poverty. Conversely, the publication by Bhalla (2002) suggests that the poor have gained significantly from globalisation compared to the rich, which has persuaded some individuals to believe that globalisation positively influences poverty and can be used to eliminate absolute poverty in the modern world. Although studies have reached various conclusions regarding the influence of globalisation on poverty, it is impossible to provide an opinion on which studies have the correct or incorrect findings because all of them are valid based on the information gathered by the researchers. Therefore, this research employs panel data to determine the influence of globalisation on absolute poverty.

1.1 Problem Statement

Some research has shown that globalisation positively impacts on poverty because it enables nations to increase trade, which leads to improvement in living standards, whilst other studies indicate that globalisation has helped developed countries decrease absolute poverty significantly. Concurrently absolute poverty in developing nations has increased because by depriving their labour markets of well-paid job opportunities. Globalisation is acknowledged to influence poverty levels but the extent to which this has

happened and how it occurred have not been conclusively determined. The major issue with these findings is the lack of reliable data to substantiate them. Consequently, it is essential to conduct extensive empirical research using robust data to assess how globalisation influences poverty.

1.2 Importance of the Study

Globalisation has positive and negative influences on poverty levels as indicated by the existing research. Since the majority of the findings of these studies are not based on reliable data and/or failed to concurrently consider developing and developed nations, there is a considerable gap in current knowledge. In order to rectify this unsatisfactory situation, this study uses panel data from more than 100 developed and developing countries gathered over a long time period. The research is justified on the basis of diminishing the knowledge gap by adopting different methodology and widening the scope to countries at all levels of economic development. Subsequently it will be easier to ascertain the short- and long-term influence of globalisation on nations. Most previous studies have failed to indicate whether globalisation increases abject poverty in developing countries in the short or long term and to determine whether the decrease in abject poverty in developed countries has a short term or a long-term impact.

1.3 Research Purpose and Objectives

Globalisation has enabled individuals to travel freely between countries, has facilitated free trade and exchange of expertise, and subsequently affected poverty levels in all parts of the world. The existing research provides conflicting evidence of the effect of globalisation on the extent of poverty in developing countries and its impact on good job opportunities. Therefore, the purpose of this study is to determine the consequence of globalisation on absolute poverty by analysing longitudinal multidimensional panel data from more than 100 developed and developing countries, which was collected between 1988 and 2007. The globalisation index created by Dreher (2006) and World Bank poverty estimates will also support the research. Whilst past studies of the influence of globalisation on poverty have predominantly focused on how globalisation influences

poverty generally in either developed or developing nations, the scope of this research is to establish how globalisation affects absolute poverty in developed and developing countries.

Therefore, the objectives for this research are to:

- establish the meaning of abject poverty
- explain the nature of globalisation
- identify the association between globalisation and poverty
- determine how globalisation and poverty are measured
- ascertain how globalisation impacts on poverty in developing and developed countries

Therefore, the Research Questions is:

RQ: How does globalisation influence absolute poverty in developed and developing nations?

1.4 Thesis Structure

This research report comprises six Chapters. This Introduction facilitates an overview of the entire research, provides the researcher with a structure that ensures that the research questions will be answered and the reader with knowledge of how the study will proceed.

1.5 Summary

The research problem has been established in this Chapter and the thesis justified to reduce a major knowledge gap. In Chapter Two, the major concepts and theories related to answering the research question are critically evaluated.

Chapter 2: Literature Review

2.1 Introduction

The Literature Review is an important part of the thesis because its focus is on identifying gaps in existing knowledge regarding the association between globalisation and poverty, critically evaluating major concepts that support answering the research problem and refining the research question (Hart, 2010). This Review focuses on diverse aspects of poverty and globalisation.

2.1 The Poverty and Globalisation Debate

The relationship between poverty and globalisation has been extensively studies in the contemporary world because governments and policymakers strive to use globalisation to decrease poverty and enhance the quality of life for human beings (Aisbett et al., 2005). Some studies have shown that globalisation is one of the causes of increased absolute poverty, whilst others suggest that poverty levels have significantly decreased over the years, as a consequence of advances in globalisation. Researchers who argued that globalisation minimises poverty propose that significant advances have been achieved in lessening poverty by interventions that have been implemented successfully in the last two decades. These activities have resulted in a decline in inequality generated by increasing globalisation (Calgar et al., 2019). They also argue that globalisation has facilitated the development of realistic, liberating economic policies. Conversely, researchers who claim that globalisation is responsible for the increased level of absolute poverty propose that the wealthy have continuously amassed enormous wealth as a result of globalisation, whilst the poor have become poorer (Bourguignon, 2004).

Although both parties claim that their findings are based on facts, both have failed to ensure a robust study and conclusions supported with appropriate data, so that it is impossible for unbiased observers to take a suitable stance on the controversial issue. Consequently, it is easier to dismiss some studies because they appear to have been conducted by biased individuals, or as a consequence of the small sample size, which cannot be generalised to all of the associated population (Agenor, 2004). However, a

study conducted by the World Bank in 2002 entitled Globalisation, Growth and Poverty, triggered global debate and was considered to be a reputable source of information because the institution has access to reliable data. The study authors assumed that globalisation had a significant part in the growth of global economies, reducing poverty because most integrated economies grow faster. Economic growth was associated with improvement in the living standards of poorer people and these findings have credibility because they are associated with the World Bank.

However, the data used to reach these conclusions may have been biased since the study did not describe how the conclusions were reached, for instance the sample size should be stated and other relevant information provided to interrogate the findings. The World Bank publication proposed that globalisation decreases poverty because it allows low income nations to penetrate the global market, increasing job opportunities and income levels for the poor. Similarly, Dollar and Collier (1999) state that globalisation makes it possible for individuals living in impoverished villages to move into urban settings in which well paid jobs are available, which elevate their living standards. However, Dollar and Kraay (2004) maintain that the availability of job opportunities in developing nations as a consequence of increasing globalisation does not guarantee a decrease in absolute poverty because these jobs require skilled, experienced workers. As a result, most people living in developing countries access low paid jobs because their level of their qualifications is low and many companies operating in developing economies pay qualified workers a different rate to similar employees employed in developed nations (Dollar & Kraay, 2004).

Most companies calculate the pay rate based on the living standards in particular economies, which makes it difficult for the working class in developing countries to escape from poverty, and does not significantly impact on the poorest groups. This study has attracted substantial criticism from other researchers, for instance, the position it takes regarding the growth of inequality globally and its impact on poverty, which have resulted from increasing globalisation. The study conducted by Milanovic and Squire (2006) dispute the findings made by Dollar and Kraay (2004), proposing that they are only factual in case where the average income per capita is weighted by population. It is possible that

Dollar and Kraay (2005) based their conclusions on China and India because inequality and absolute poverty increase significantly when the two countries are not included in the sample. Inequality, one of the causes of absolute poverty, is also considerably higher in China, although the rate is slightly below the global average.

Globalisation is enhanced by interdependence and interconnectedness between countries (Rahim et al., 2014); economic reasoning infers that globalisation is rising as a consequence of the interdependence of world economies owing to the flow of international capital, rapid and comprehensive technology, and increasing cross-border trade of goods and services. Globalisation is also associated with the ongoing expansion and mutual integration of market frontiers, the significance of constantly increasing information volumes, and financial and economic phenomena as a consequence of financial exchanges and trade developments. However, globalisation is characterised by more than capital flows, goods, and services, it also encompasses monetary, sociological, political, cultural, and financial considerations and most visibly affects the economic sector with sharply increased trade and economic activities. Globalisation has rapidly accelerated owing to the development of free trade policies between world economies that have increased interaction between regions worldwide (Rahim et al., 2014) and stimulated global economic growth.

The development community make different claims concerning the progress achieved to reduce poverty with some advocates of the poor proposing that globalisation creates more losers than winners, in other words globalisation does not promote development, instead it results in poverty and inequality (Rahim et al., 2014). There are various estimations and perspective as some claim that poverty is gradually declining while others hold the reverse view. Globalisation has dramatically boosted income and living standards, so that the poor have gained a share of the benefits of globalisation and, if managed appropriately, globalisation could generally be a positive force by making all the relevant resources available to curb poverty. However, fundamental adjustments are necessary for such an outcome, for instance adjusting the worldwide status quo. Globalisation is portrayed as irreversible and can either ham or help the poor (Rahim et

al., 2014) inferring that governing the process to make it fair and beneficial in all current aspects is critical.

The poor are generally more likely to profit from globalisation when complementary policies boost its positive influence on poverty, for example improving technical know-how and access to credit (Calgar et al., 2019). Suitable policies can range from countries embracing the minimum wage initiative in order to safeguard the unskilled workers who may be among the poor to promoting incoming foreign investment and increasing exports. Initiatives of this nature are usually expected to reduce poverty levels in several countries and embracing Global Collective Action has the potential to maintain constant economic expansion globally and to minimise the negative impact of global volatility, which is usually associated with developing countries. International policy coordination has the purpose of attracting more effective, sufficient assistance in order to reduce poverty and resolve the debt issues experienced by developing countries (Ravallion, 2016).

International policy coordination should eliminate trade barriers, combat global diseases, increase support for protecting the global commons, ensure preferential access to the poorest countries, and maintain knowledge and information sharing (Ravallion, 2016). Reducing poverty through economic growth becomes the critical objective of development initiatives intended to realise an accountable, prosperous, and more peaceful financial world, regardless of the measurements and techniques used. The perspective that that reducing poverty is only possible by halting globalisation initiatives or vice-versa is not a valid stance (Calgar et al., 2019), Globalisation can positively or negatively harm the poor. Instead focusing on the many positive impacts of the economy, which help to eradicate or reduce the prevalence of poverty among people around the world in developed and developing countries, is a more realistic approach.

2.2 The Association between Poverty and Globalisation

Substantial research has been conducted about the impact of globalisation on poverty but most studies have focused on economic globalisation, primarily on free trade, which has resulted in unreliable findings because it restricts the research scope. However, Harrison and McMillan (2007) examined the impact of globalisation on poverty with a

significant focus on economic growth but as a mediator in the association and referred to the relationship between globalisation and poverty as an orthodox view, specifically that openness to trade generates growth, which is subsequently positive for the poor as proposed by. Dollar and Kraay (2004). They also indicate the existence of a systematic association between changes in income distribution as the volumes of trade alter, and. that growth rates are enhanced either by business or other economic openness measures, which translate into a proportional increase in the earnings of the poor. However, the orthodox view has been severely criticised and this research also intends to critically challenge that view.

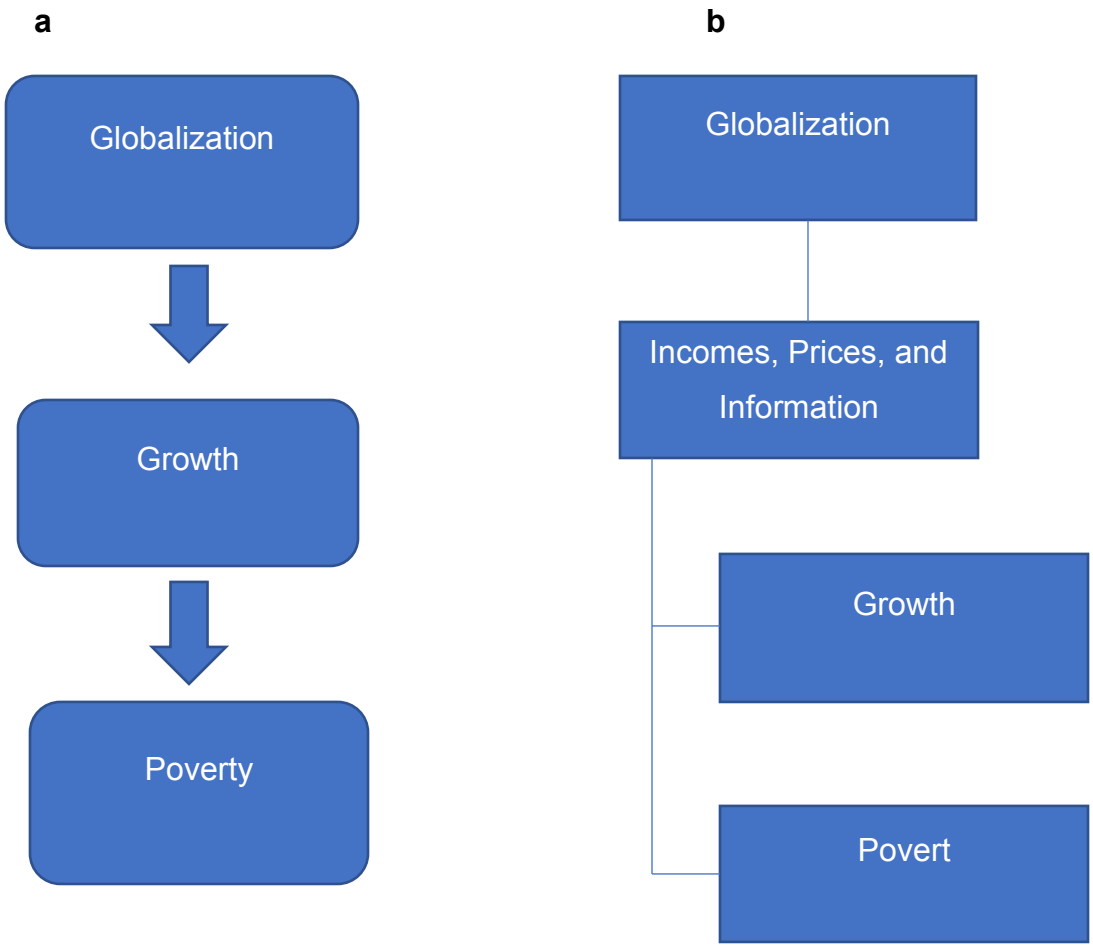
However, research has demonstrated that absolute poverty is affected by globalisation, despite substantive contribution to economic growth globally; according to Aisbett et al. (2005), an increase in real income is linked to economic growth. The relation between absolute poverty and income relies on the extent to which the poor person's income in a specific economy is affected by globalisation. Theoretically, the poverty levels in an economy are likely to increase or decrease without growth, consequently there is an ambiguous relationship between growth and poverty reduction. A study conducted by Kalwij and Verschoor (2007) used data from 58 developing countries gathered between 1980 and 1998 and found significant regional differences in the effect of income growth on poverty reduction, for instance changes in the related Gini factors in the mid-1990s averaged 0.80 but was 0.01 in South Asia compared to 1.73 in South America. Inequality and the evolution of growth can be attributed as the outcome of a similar process (Lundberg & Lyn, 2003, p.326), confirming the negative perspective of the orthodox view. The change in income distribution and initial income distribution indicate the manner in which changes in poverty rely on growth (Bourguignon, 2004).

The existing literature linking globalisation to inequality does not concur with the argument that the effect of globalisation on poverty depends solely on connections between globalisation, growth and poverty reduction. Instead the relationship is considered ambiguous if globalisation results in higher income dispersion and growth; economic globalisation or trade can increase inequality, as confirmed by research findings from Bergh and Nilsson (2010). In addition, research by Milanovic and Squire (2006) and

Lundberg and Lyn (2003) provide similar evidence. However, the relationship between middle-income and wealthy countries propels the inequality effect, as confirmed by Berg and Nilsson (2010) whereas Milanovic and Squire (2006) report that increased income inequality caused by higher trade volume is only experienced in developing countries. The variation in findings has significance because differences in the measurements and samples utilised seem to explain the conflicting results. The assumption that constant income distribution, for example the relationship between growth and globalisation, ultimately links to reduced poverty is insufficient for inferring the effect of globalisation on poverty (Berg and Nilsson, 2010). Instead, it is preferable to evaluate the initial levels of, and differences between, globalisation and poverty followed by subsequent figures for each.

There is a very low probability that it will be possible to experience growth without a poverty levels falling, which aligns with the standard approach and these findings are more credible to some degree because World Bank conducted the study. However, the data used in its research may have been subject to bias as no details were published regarding how the conclusions were reached (Berg & Nilsson, 2010). The World Bank study concluded that globalisation decreases poverty because it allows low-income nations to access the global market, increasing income and job opportunities for the poor. The findings from Bergh and Nilsson's (2010) study add that globalisation makes it possible for individuals living in the poorest villages into urban areas and to access higher paid work and raise their living standards, although as discussed in section 2.1, Dollar and Kraay (2004) found no direct relationship because several other factors must be considered such as skill levels and multinational company pay policies that vary according to global location. The two arguments are summarised in figure 1; the direct relationship approach and the indirect connection mediated by other factors such as income and information.

FIGURE 1: Conflicting Perspectives Regarding the Association Between Poverty, Growth and Globalisation



2.3 Measuring Globalisation and Poverty

There are many challenges when attempting to measure poverty, for example assessing the lack of access to economic resources to meet fundamental material needs. An important potential issue is World Bank's one dollar a day poverty line, which has attracted substantial criticism because the amount is too small (Deaton, 2010). An additional argument is that it is inappropriate to reduce poverty to a relationship with purchasing power because poverty is considered to be a multidimensional concept. The second

challenge when attempting to measure poverty is lack of a common preferred technique to measure absolute purchasing power (Deaton, 2010); absolute purchasing power has space and time comparability when there is variation in relative prices between countries.

The values of global Gini coefficients and headcount poverty levels differ in the Penn World Tables and World Development Indicators (Deaton, 2010) but Deaton (2010) proposes that overall trend is similar whichever data is quoted. In the 1980s and 1990s the overall percentage of absolute poverty declined (Deaton, 2010) and during the same period the population weighted Gini coefficient per capita Gross Domestic Product (GDP) also declined. The third potential problem when attempting to measure poverty is the strong reliance on household surveys by World Bank, which provide contentious comparison and low coverage in some geographical locations, for instance in sub-Saharan Africa. Alternative estimates of mean income can be obtained from national accounts but these sources may overestimate mean income because corporate profits and tax revenues are included in per capita GDP (Deaton, 2010). Nevertheless, there are always fluctuations when revising the poverty line and updating estimates with new data, but this should not raise questions about the methodology (Ravallion, 2010); the best estimates for examining absolute poverty are World Bank generated and utilised worldwide. Ravallion (2010) proposes the Poverty Headcount Index as the chosen method for evaluating absolute poverty.

Moreover, there has also been intense discussion on the best measure for economic globalisation or economic openness, Sachs and Warner (1995) introduced the index that is the most employed measure of financial transparency but doubts have been expressed regarding this the index since it is binary. The index has been criticised by Rodriguez and Rodrik (2000) in relation to the difference between trade policies and trade flows, for instance trade policies comprise regulations, taxes, and tariffs, whilst the trade flows include imports and exports. Although trade flows are associated with growth, research based on such findings is insufficient to prove that increases in trade flows result from economic openness policies and higher trade flows are not necessarily realised by introducing more trade restrictions. (Rodriguez & Rodrik, 2000). However, globalisation involves more than economic openness. The KOF Index was proposed as the preferred

measure of globalisation by Dreher (2006), improved in Dreher et al. (2008); the index uses principal components analysis to quantify political, social, and economic globalisation to establish and to aggregate an index which can compare globalisation across countries over time (Dreher et al., 2008).

It is also possible to categorise social globalisation into cultural proximity, personal contact, and information flows, and economic globalisation into trade policies and trade flows. The research by Dreher (2006) mostly focuses on the association between economic and social globalisation and poverty, but ignores the politics of globalisation. It is somewhat difficult to interpret indicators of political globalisation because fundamental theoretical predictions of the effect of the indicators on poverty do not exist and there may be severe problems of reverse casualty. Despite the exclusion of political globalisation at one level, it can be included when using the aggregate index to measure globalisation outcomes based on the KOF Index creators (Dreher, 2006). Since income is comparatively easy to measure, most wealthy countries prefer measuring poverty by considering income but avoid relative consumption expenditure because it is more complex and difficult to quantify (Dreher et al., 2008). However, developing countries consider consumption expenditure when measuring poverty, because they find tracking expenditure easier than obtaining accurate income data because a significant proportion of the population obtain their income from self-employment or informal or irregular income sources (Bourguignon, 2004).

Some analyses propose that expenditure more accurately indicates whether an individual has sufficient resources to meet basic needs, so that consumption is the best indicator of poverty. The most challenging aspect of the practical measurement of poverty is poverty construction; three methods are commonly applied for defining the poverty line, consumption of food and energy, cost of basic needs, and subjective evaluations. The poverty line associates the minimum expenditure a person requires to satisfy their basic needs (Aisbett et al., 2005). Although it is possible to measure poverty trends in countries using national poverty lines, it is not applicable when comparing poverty trends across countries. This issue arises because the poverty line selected differs from country to country, depends on family composition or the individual regions within a country. The

preferred techniques for measurement of poverty depend on their intended use (Aisbett et al., 2005). Absolute poverty lines are applicable at the national or international level. Several countries develop absolute poverty lines, which are modified for inflation, that stay fixed for a specified time period to allow for comparison with previous antipoverty policy levels and judgement (Chao et al., 2004).

Also, change in absolute poverty lines indicates a change in consumption behaviour; poverty can be compared on national and global levels but diverse factors generate differences in the estimates of global poverty, for example different poverty lines, diverse mean income calculations methods by country, and other estimation techniques concerned with income distributions within a country (Hyeon-Seung & Cyn-Young, 2019). The employment of purchasing power parity exchange rates to convert locally regulated earnings into a standard currency recognised internationally has been identified as a significant challenge. The lack of a common approach regarding the most appropriate method to measure poverty is the underlying weakness of all the differences appraised. The price variations for food and other essentials across countries is exhibited in the variation in the absolute poverty lines so that it is necessary to rationalise these differences to allow international comparison of poverty (Hyeon-Seung & Cyn-Young, 2019). The Purchasing Power Parity (PPP) Exchange Rate facilitates comparison of national currencies and therefore of price levels in each country.

2.4 Possible Links Between Globalisation and Poverty

Economic openness may foster growth by means of various systems suggested by economic theory, for instance competition, scale economies, specialisation, innovation, and macroeconomic stability incentives, which are critical. Developing countries may also experience an increased return to higher education from higher integration of the mechanisms in the global economy, with positive long-run growth impacts via human capital according to Stark (2004). Many of the effects will not affect poverty levels for some time, and an increase in income dispersion may counteract the poverty effect.

Globalisation may reduce poverty after an extended period for a variety of reasons, although some short term costs may influence absolute poverty in the short term (Agenor,

2004). The reasons presented by Agenor (2004) are appraised. Transition cost meaning that higher levels of less expensive capital is created from an economy that continues to open its economy. Poverty is likely to increase before employees that are laid off from the jobs can obtain new job opportunities, especially when companies substitute labour for capital in production. Economic openness may generate increased competition that could subsequently force some domestic companies to close and subsequently cause a rise in unemployment levels. A shortage of human capital may occur if more capital-intensive production and advanced technologies result from openness, more skilled labour may be necessary to realise the full benefits than is initially available. The education premium is likely to increase because there in more opportunity to work abroad but this also potentially impacts on the domestic level of human capital, although the change will occur slowly. The nation may adopt a more significant commitment to low inflation, which may result in higher economic openness that could trigger growth in the longer term and support the poor who may be most exposed to inflationary effects (Bhagwati & Srinivasan, 2002). Higher unemployment may be a reality as a consequence of a transition from high to low inflation in the short run (Bhagwati and Srinivasan, 2002).

When globalisation affects the size on national governments and is characterised by a modification in social spending, poverty levels may be affected. When nations open their economies, which subsequently generate higher levels of welfare, the bottom hypothesis and compensation hypothesis are two mechanisms that may operate (Sinn, 1997; Rodrik, 1998; Lindbeck,1975). The compensation hypothesis relates to open economies developing larger welfare nations as insurance entities (Rodrik,1998; Lindbeck,1975), conversely, Sinn (1997) proposed the bottom hypothesis, which involves open economies competing through tax reduction. When the value of a nation's currency increases, the trend may generate a reverse J-curve may occur so that its exports become more expensive and it loses global competitiveness. This trend is often observed as globalisation increases and impacts negatively on absolute poverty. Therefore, only specific mechanisms support the argument that economic globalisation may reduce poverty in the long term, for example, openness may cause geographically broader, faster spread of infectious diseases, which Kawachi and Wamala (2007) suggest reduce labour supply and productivity, resulting in increased poverty. The poorer sections of society

may be affected such adverse effect, aligning with perspective that openness may boost growth but fail to reduce poverty.

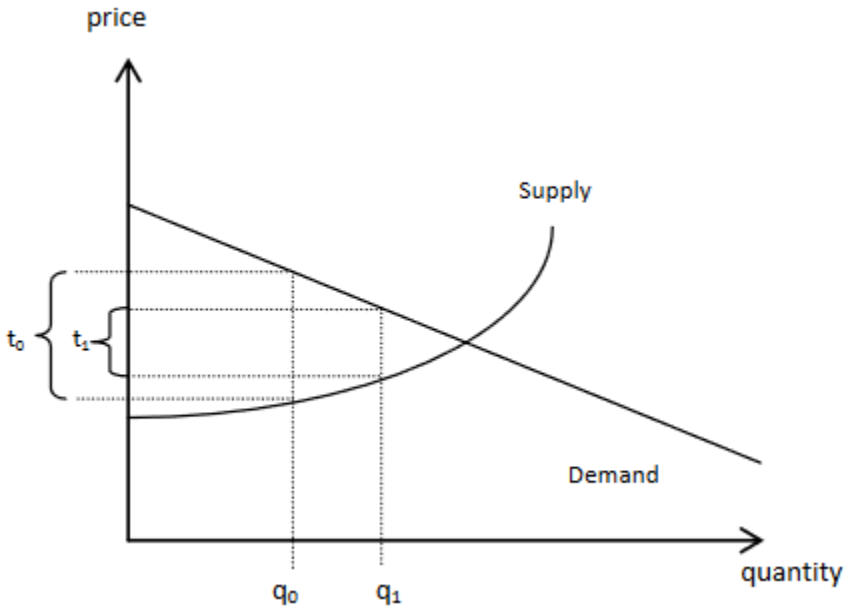
All three aspects of the KOF Index, cultural proximity, personal contacts, and flows, potentially influence the buyers of suppliers and buyers in the market as well as market functioning. Information flows critically determine marketing functioning but better information and communication technologies can guarantee market efficiency in less developed countries that are characterised by large communication asymmetries and high transaction costs (Kawachi & Wamala, 2007). The Internet and telecommunications are substantive tools supporting information exchange and generally boosting market functioning. However, Aker and Mbiti (2010) propose that there is theoretical ambiguity in distributing these efficiency gains among firms, producers, and consumers.

In the short term, suppliers could benefit from lower search costs when they appropriately use spatial arbitrage opportunities but consumers will be the primary beneficiaries as markets become more competitive (Aker & Mbiti, 2010, p. 216). The research by Elbers and Lanjouw (2001) found that farm produce prices and earnings from off-farm activities may increase as a consequence of increased rural telephone services Empirical evidence demonstrated that installation of telephone facilities could improve government services (ITU, 1998). A wide range of studies on the impact of Information and Communication Technology (ICT) on inequality and growth were summarised by Forestier et al. (2002), indicating that ICT positively relates to growth with a less apparent effect on inequality.

In cases where new information and communication technology are only available to a small elite group inequality may increase in the short term but the disparity will lessen as more people gain access the technology, whether the means is the internet, mobile phone, or telephony access. The dissemination of Information generally supports transaction cost reduction, shifting markets towards competitive equilibrium. Suppliers and buyers will only transact when the variation between the buyer's willingness to purchase and the producer's reserve price is more than the transaction cost. The effect of lowering transaction costs is essentially to generate a tax wedge, which is defined as the difference between cost to the purchaser and the suppliers price; reducing transaction

costs from t_0 to t_1, figure 2, reduces the lowest difference between the producer’s reserve price and the consumer's willingness to buy required for transaction to occur. Producers and consumers share the transaction costs in terms of taxes, with an expected output increase at lower transaction costs.

Figure 2: The Welfare Effect of Lower Transaction Costs



Social globalisation comprises cross border personal contacts and information flows; information and knowledge transmission by means of outgoing telephone traffic can potentially influence economic outcomes, in a similar manner to other information flow indicators. Some types of private contact, for instance tourism, attract minimal expected results but tourism can favour development by means of resource flows and trade effects, which might be offset by the potential of mass tourism to generate negative externalities (Chao et al., 2004). There is also a significant difference between immigration and tourism; Kondo (1999) notes that immigration can influence the supply side of the host economy whilst both may affect the demand side.

Cultural proximity the third aspect of socialisation in the KOF Index, gauged by trade in books as a percentage of GDP, the number of IKEA stores per capita, and of McDonald's restaurants. The index variation in developing countries if often associated with the establishment of McDonald's restaurants because its company logo is usually considered a globalisation symbol and led to creation of the sociological term "McDonaldisation". The significance of mechanism highlighted by the use of McDonald's restaurants in the index suggests that globalisation may facilitate access to everyday foods, reshaping dietary culture in the developing world, with obesity becoming the potential outcome (Medez &

Popkin, 2004). The establishment of multinational firms such as IKEA and McDonald's are associated with a specific economic globalisation standard, for example, IKEA predominantly depends on Asian countries for cheap imports such that, a positive correlation, r. of r=0.83 exists between social and economic globalisation levels, and they are not included simultaneously in the current specifications (Deaton, 2010). However, a gap exists as to whether it is worth determining if the factors that are captured by social globalisation are more than merely a substitute for economic globalisation. The gap is whether high economic globalisation has a more significant effect than social globalisation on poverty.

2.5 The Influence of Globalisation on Poverty in Developing Countries

The main impact of globalisation on poverty in every country is by means of economic growth. Traditionally, developing countries restricted the quantity of imports by means of licences and quotas, which represented substantial tax barriers and high levels of trade protection (Hyeon-Seung & Cyn-Young, 2019). However, many countries moved away from this type of protectionism in the 1980s and 1990s and instituted large-scale trade reforms. Since globalisation affects poverty levels through economic growth, countries encourage more trade to increase GDP more rapidly and to experience improved living standards. The usual motivation is that the advantages of higher economic growth eventually reach the poor but determining exactly how the poor have benefited is challenging, especially when using aggregate data to do so. One issue is that factors such as technology and macroeconomic conditions change when globalisation and trade occur and the unavailability of related high-quality data on the status of the poor is an additional challenge. Therefore, it is difficult to identify the true effects of globalisation on poverty (Hyeon-Seung & Cyn-Young, 2019). However, there is no evidence that any developing country has managed to progress over a long period without creating import/export trade.

2.6 How Globalisation Negative Influences the Poor

It is very challenging to identify the various ways the globalisation process may harm the poor, even the strongest supporters of globalisation acknowledge that trade reforms undertaken in developing countries could potentially result in unemployment and poverty in the short term, owing to distortion of the labour market. Poor labour mobility and a low degree of wage flexibility across sectors are amongst the omnipresent distortions in the labour market (Agenor, 2004).

2.6.1 Trade Openness

Despite suggestions, which indicate that trade liberalisation may permanently raise growth rates or boost short term resource allocation, some reports portray the opposite effect. A country opening its market to foreign firms, for example, reduces the market power of domestic companies, consequently increasing competition, which could force them to close their business (Agenor, 2004). The country may use of its productive resources in the long term to generate increased growth rate and reduce poverty. However the short term competition and labour market rigidities may interfere with the transformation of labour categories from non-tradable to tradable sectors involved in tariff reduction (Segal & Brawly, 2009). Trade openness can limit growth, especially when a country is not advanced technologically and possesses an initial comparative advantage in sectors that are characterised by little change over time (Nwaka et al., 2015).

Furthermore, many developing countries demonstrate the relatively static economic dynamics by their major exports of raw materials and relatively low technology products. Although trade openness may assist developing countries to embrace new production techniques and technologies, in the transition period globalisation may be experienced as having an adverse effect on growth and poverty. When nations become a market economy, they may risk reducing their development activities and domestic research, sector (Nwaka et al., 2015). Trade liberalisation may also stem demand for skilled labour, consequently increasing poverty and worsening wage income distribution, for instance trade openness in Latin America and Asia during the 1980s and 1990s resulted in worsening wage inequality, a return to skilled labour relative to unskilled labour, and

increased professional labour demand (Segal & Brawly, 2009). This trend indicates that trade liberalisation is associated with higher level technology, which requires skilled labour for effective operation (Segal & Brawly, 2009).

The cost of capital relies on the relative price of capital goods and tariffs paid for buying units of capital goods overseas. When a reduction in tariffs translates into a reduction in the capital cost, a high degree of substitutability exists between capital and unskilled labour, and demand for skilled labour will increase (Nwaka et al., 2015), which widens the wage gap between the professional and unskilled workforce. As the demand for unskilled labour declines, unemployment increases and translates to heightened poverty levels, imperfect credit markets may result in worsening income distribution and prevents the unskilled from providing the collateral to borrow money (Segal & Brawly, 2009). Consequently, these workers have considerably more difficulty to escape from the poverty trap.

The connection between human capital accumulation and trade openness is critical for understanding the long-term impact of globalisation on poverty (Nwaka et al., 2015). As unskilled workers learn new skills, the degree of human capital in the nation and individual companies increases, therefore trade regimes can increase investment in human capital in developing countries. However, imports of skill-intensive goods to these countries reduces the incentive to provide skills training, the education premium has less impact, and poverty is likely to increase under these circumstances (Kawano et al.,2017).

2.6.2 Financial Integration

Although the integration of international financial markets may create substantial gains in the long terms, a high degree of economic openness may also generate significant short-term costs (Segal & Brawly, 2009). In recent years, some developing countries have experienced capital inflows, and the sudden reversals that may occur with these inflows have been associated with a rapid increase in poverty rates, economic crisis, and deep financial stability (Naceur & Zhang, 2016). The situation is especially noticeable in countries with poorly regulated financial systems, in appropriately sequenced capital account liberalisation and imprudent sovereign debt management. The critical challenge

associated with economic openness is that access to world capital markets is asymmetric (Segal & Brawly, 2009).

Therefore, the more prosperous developing countries can only borrow from world capital markets in boom periods but experience credit constraints in global financial downturns, so that access to capital is pro-cyclical. Pro-cyclicality may increase and result in unforeseen negative consequences on macroeconomic stability that has the opposite effect of what was intended. Favourable economic/financial shocks could attract significant capital inflows and promote unsustainable levels of spending and consumption in the long term. This situation could result in abrupt capital reversals that compel countries to over adjust to the adverse conditions (Naceur & Zhang, 2016), and consequently may magnify poverty.

In recent years, financial globalisation has penetrated the domestic financial systems in many developing and transition economies owing to the influx of foreign banks. This type of economic integration is usually a decision imposed on the country situation, for instance be recapitalising domestic banks following a banking crisis (Corneli, 2021). However, this is a different challenge to trade liberalisation, which is caused by the unilateral decisions of governments to lower tariffs. Although greater foreign penetration potentially creates substantial benefits, which could motivate an increased growth rate and reduced poverty, negative impacts are also possible. These include reduced access to loans for small and medium sized firms and greater credit flow concentration on huge companies producing tradable goods (Corneli, 2021). The consequences of this type of trend in access to finance are reduced demand for labour, deteriorating income distribution, lower levels of economic activity, and increasing poverty.

The credit market is another channel in which financial openness may adversely influence access for the poor, because higher domestic interest rates may be the consequence of increased exposure to volatile shocks related to financial transparency (Nwaka et al., 2015). This trend is evident from connections between monitoring costs, the supply side of the economy, the financial system, and capital flows. The increased exposure to volatile shocks relating to economic openness could cause lower domestic output, higher

domestic interest rates, and higher poverty rates (Segal & Brawly, 2009). The main reason for this phenomenon is that higher volatility increases intermediation costs and causes local financial institutions to limit access to credit or to increase domestic interest rates, in order to maintain the targeted profit levels. Financial openness may also impact growth owing to financial volatility, and by association on poverty (Corneli, 2021). If capital flight accompanies financial openness, the lower domestic capital accumulation rate may be related to a consistent, profound influence on growth.

2.7 Optimism and Pessimism Towards Globalisation

Several decades of global cultural exchange, the increasing power of multinational companies, and rising trade and capital flows have stimulated different perspectives on the benefits and harm related to globalisation (Rahim et al., 2014). There is little correlation between observed trends in poverty and liberalisation policies; individuals supporting globalisation believe that growth in some countries such as China in the recent decades resulted from liberalising their economies, whilst critics argue that the same countries capitalised on globalisation to create opportunities because their governments intervened to exploit it (Rahim et al., 2014). Similarly, proponents of globalisation claim that economic problems in Africa are caused by inappropriate government intervention and a lack of openness (Segal & Brawly, 2009).

However, individuals criticising globalisation claim that Africa's problems result from several other factors. The critics also propose that forced liberalisation has not produced growth but worsened the status of the poor because of the increased instability generated by reduction in government services (Nwaka et al., 2015). The relationship between absolute poverty and globalisation has always been measure in terms of the proportion of the population below the purchasing power parity (Rahim et al., 2014) but critics claim that there is no conclusive proof of a relationship between globalisation and absolute poverty.

2.7.1 Pro-Globalisation

Individuals and groups that support globalisation believe that poverty is reduced as a consequence of its advantages (Collier & Dollar, 2002), for instance opportunities for growth and as the solution to poverty. Those supporting economic globalisation propose that criticism and dissent are related to vested interests and ignorance (Bardhan, 2003). The general argument concerning the effect of globalisation on poverty in which endogenous growth theory is employed, which propose that growth is generated within the system as a consequence of the internal processes instigated.

Consequently, the the connection between globalisation and growth is attributed to initiatives such as liberalisation, which spur increased growth through integration and positively influences a decline in poverty. In other words, a more liberalised economy experiences faster progress (Collier & Dollar, 2002) inferring that liberalising economic policies alleviate world poverty through growth. The World Bank has promoted the same view, asserting that globalisation has been the means to alleviate poverty and to develop world economies (Bardhan, 2003). It also proposes that lack of openness could increase inequality, stating that open developing economies have achieved higher reduction in poverty levels than closed ones (Collier & Dollar, 2002). Similarly, access to foreign direct investment, increased productivity, better division of labour, and diffusion of knowledge had been generated by globalisation, promoting growth and subsequent human welfare gains.

2.7.2 Anti-Globalisation

Conversely, while pro poor groups acknowledge that openness and growth may be related, they do not consider that there is sufficient evidence to claim that they have resulted in reduced poverty (Bergh & Nilsson, 2011). Despite the unprecedented growth and improvement in living standards in some parts of the world, poverty still exists with inequality becoming prevalent (United Nations, 2005). Evidence favouring globalisation is met with scepticism because globalisation is considered to be a process that removes power from the poor by concentrating it upwards. Transnational companies are deemed to acquire a variable amount of market and political power; critics of globalisation perceive

that these firms are focused on self-interested outcomes, whilst ignoring the poor. Some experts propose that globalisation is not linked to high poverty levels in developing countries (Salvatore & Campano, 2012).

In recent decades many low-income countries have participated in external economic liberalisation programmes, which have attracted much debate. Higher globalisation levels and closer economic integration considered as being the best ways to reduce poverty. When evaluating the criticisms of globalisation, there is evidence that some groups have considerable interest in developing the optimum policy for alleviating poverty, whilst lowering the adverse effects on subgroups of the poor (Bergh & Nilsson, 2011) and that they are also interested in ensuring sustainable environmental, economic, and social growth. The development community have made diverse remarks concerning the progress achieved against poverty (Salvatore & Campano, 2012) studies have employed varied estimates and generated diverse perspective, some claim that poverty is gradually declining whereas others propose that it has increase.

Consequently, one viewpoint is that globalisation has substantially boosted income and living standards, so that the poor have gain a share of the benefits of globalisation, some. Conversely pro-poor growth advocates suggest that globalisation creates more losers than winners, with the argument that globalisation leads to poverty and inequality (Bergh & Nilsson, 2011). Fortunately, perspectives about globalisation and the impact of growth on income inequality and poverty are not wholly contradictory (Bergh & Nilsson, 2011), for instance, there is an extreme view that globalisation has reduced poverty and wealth worldwide, while the radical opposing viewpoint is that globalisation is to blame for the economic reliance of developing countries and poverty. The concept that globalisation can potentially benefit everyone, appears to be irrational.

Globalisation is portrayed as being irreversible and can either harm or support the poor (Bergh & Nilsson, 2011), therefore governing the process to make it fair and beneficial in all current aspects is critical. The appropriate management of globalisation could make it a positive force by ensuring that all the relevant resources are available to curb poverty. However, fundamental adjustments are necessary for such an outcome, for instance

adjusting the worldwide status quo (Salvatore & Campano, 2012) and obtaining a genuine political pledge from developed and developing countries to embrace an enhanced global economic and financial model.

Chapter 3: Methodology

3.1 Research Stance, Research Design and Theory Development

The purpose of this research is to establish how globalisation influences absolute poverty in developed and developing nations. Therefore, research employs an objective stance since its purpose is examine the objective relationship, a cause and effect link, between the two variables globalisation and poverty alleviation. The research design is explanatory, a highly systematic process that determines the relationship, if any, between globalisation and poverty. Therefore, theory development is based on the deductive approach, testing known theory such as those appraised in the Literature Review (Saunders, Lewis & Thornhill, 2019).

3.2 Data Gathering and Analysis Methodology

This study adopts quantitative methods since they are associated with the positivist or objective stance to research, the alternative single methodology qualitative methods is unsuitable for measuring the effect of one or more independent variables on a dependent variable (Saunders, Lewis & Thornhill, 2019).

In this research, the dependent variable is poverty level, and the dispersal of the poor is considered as the substitute for poverty, therefore the Headcount Index is the primary dependent variable. Headcount Index is described as the percentage of the population in a specific country with individual income levels below one dollar per day. The independent variable is globalisation, the KOF index being the measure of globalisation utilised (Dreher et al., 2008); KOF is used in aggregated format, KOF1 and KOF2, and as a composite measure, KOF, involving the equal weighing of the three dimensions of globalisation. The study employs the subcomponents for the social and economic globalisation index, which are information flows, cultural proximity, and personal contact and flows and restrictions, respectively. The globalisation index values range from 0 to 100, with higher ratings indicating increasing globalisation.

The dataset used in this research comprises the period between 1988-2007, with data periods ranging from four or five years; 1988-1992, 1993-1997, 1998-2002, and 2003-2007. The selected sample includes almost 300 observations that meet the fundamental requirements for consideration and, despite the panel being unbalanced, it involves data from 100 countries. The majority of observations relate to the conditions in countries categorised as low or lower-middle income with a 2008 Gross National Income (GNI) per capita of 3855 dollars or less. The appendix also contains critical information for consideration, for instance Table A2 has the sources for all the variables utilised in the study examination and the descriptive statistics and Table A3 provides the information details concerning the country sample.

The measures relating to the percentage of the population and daily earnings in dollars are retrieved from the Povcal database and derived from household surveys (World Bank, 2010). The study also uses the squared and poverty gaps when conducting the sensitivity analysis.

The major method of data analysis is sensitivity analysis. In the analysis it is ideally necessary to estimate a dynamic technique that would allow the detailed exploration of a J-curve because there is an expectation that increased globalisation would generate an inverted J-curve impact on poverty. However, the difficulty experienced with utilising such models is acknowledged and is associated with the lack of data. The relationship must be estimated from the initial differences and subsequently for a sufficiently long time period for globalisation to make an impact, so that the estimate reflects the long term effects of globalisation on poverty reduction, The estimates are made by testing for mechanisms and robustness; one option is to analyse a panel with poverty and globalisation noted at regular intervals, enabling nonlinear impacts and consideration of the inverted J-curve relationship.

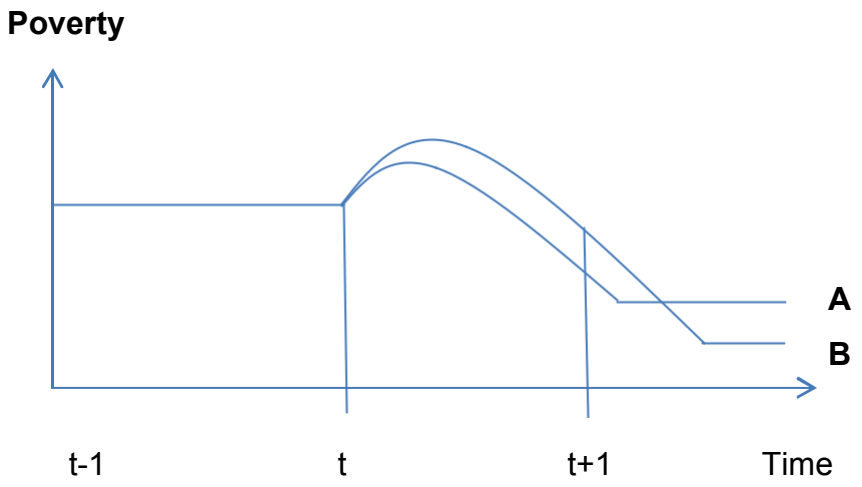
Chapter 4: Results

4.1 Globalisation Shocks Impact on Poverty

The impact of the anticipated positive shock on globalisation at time t is shown in figure 3, declining poverty is potentially observable at t+1 when there is a correct inverted J-curve hypothesis and a sufficiently long interval. Curve A demonstrates a minimal positive globalisation shock at time t. If a significant impact of globalisation generates huge transition costs and increased long term gains, the inverted J-curve resembles curve B. In that case, the subsequent occurrence will be increasing poverty at t+1, although it will ultimately become lower.

The figure demonstrates how a positive shock to globalisation at time it affects poverty when there are short term transition costs and reducing impact in the long term.

Figure 3: Globalisation Shocks Impact on Poverty



The figure indicated that when the observations are adequately separated a higher increase in globalisation is expected to cause a considerable reduction in poverty and a linear model will be the best choice. However, in case of poverty evidence being gathered at t+1 and t, as indicated in the figure, a minor shock represented by curve A and high poverty at t+1 for the large globalisation shock, represented by curve B, are observable.

Therefore, the empirical trends which conform with the inverted J-curve theory become a positive coefficient on the squared term, and a negative coefficient on the linear term in poverty regression on globalisation, with fixed country and time influences and poverty noted five years after globalisation. A negative interaction between changes in poverty and in globalisation is expected in a first difference regression by applying the most prolonged periods present in the data. The desired result assumed that the duration is long enough to allow the long-term effects to dominate.

The d empirical model is

$$Poverty_{it} = \alpha + Glob_{it-1}\beta_1 + Glob_{it-1}^2\beta_2 + X_{it}\beta_3 + \delta_i + \rho_t + \varepsilon_{it} \qquad (1)$$

Where t is time; i is country; X is a vector.

This equation has globalisation as a vector for different globalisation types and the variables are lagged since the influence of globalisation on poverty is unlikely to be instantaneous, for instance, the 1983-1987 globalisation period is related to the poverty experienced in 1988-1992. The vector X comprises the additional covariates categorised either as exogenous factors influencing poverty or as possible mediators aiding the effect of globalisation on poverty. However, they are not impacted by globalisation.

□t is consistent with a fixed period impact that captures the impact of shocks that simultaneously influence poverty in several countries. Simultaneously, □i is compatible with a fixed country impact that records substantial variations in poverty between countries. However, □ it represents an error that is usually considered as distributed.

4.2 Baseline Panel Regression Results

The study limited data in the research process and, therefore, it initially estimated a relatively close baseline, regulating only for the GDP by country with adjusted PPP as provided by the World Bank (2010). The study has a standard country sample to maximise comparability throughout the specifications and a similar globalisation indicator. However, the number of observations made differs throughout the specific index estimates; in table 2 the baseline results are represented by panel regression.

Table 1: Baseline Panel Regression Results; Headcount Index as Dependent Variable.

	(1)	(2)	(3)	(4)	(5)	(6)
KOF (t-1)	-1.48***	-1.23***				
	[0.40]	[0.40]				
KOF (t-1)^2	0.01***	0.01***				
	[0.00]	[0.00]				
KOF1 (t-1)			-0.85***	-0.83***		
			[0.25]	[0.25]		
KOF1 (t-1)^2			0.01***	0.01***		
			[0.00]	[0.00]		
KOF2 (t-1)					-0.98***	-0.81***
					[0.27]	[0.27]
KOF2 (t-1)^2					0.01***	0.01***
					[0.00]	[0.00]
GDP per capita (t)		-8.16*		-10.06**		-11.43***
		[4.51]		[4.10]		[4.25]
		116.12***	43.53***	122.03***	43.68***	
Constant	59.42***			129.34***		
	[12.45]	[34.27]	[6.98]	[31.79]	[6.37]	[33.86]
R-squared (within)	0.23	0.25	0.20	0.23	0.23	0.27
Observations	301	301	294	294	301	301
Number of countries	106	106	101	101	105	105

Columns 1 and 2, indicate the aggregated index, globalisation interacting with absolute poverty although with reduced marginal impact and conforming with the Inverted J-Curve Hypothesis. The aggregate index involves political globalisation, which is not separately analysed. The outcomes in columns 3 to 6 indicate diverse types of globalisation, which suggests that the poverty reducing impact is maintained for the social and economic globalisation. Similarly, the extent of the association declines when controlling for income,

although by a small margin. Therefore, this trend indicates that globalisation reduces poverty, although not predominantly via payment, which is captured by the panel at least in the short term.

By evaluating the social and economic globalisation indicators, table 3, the negative relationship with poverty provides detailed, interesting results. As is evident in columns 1 to 6, trade restrictions and trade flows jointly and separately indicate that the outstanding coefficient related to economic globalisation is not realised from flows but from restrictions. Columns 7 to 14 relate to the same appraisal for social globalisation, indicating the significance of information flows for reducing poverty. On the same line, cultural proximity has little impact on the increase in poverty, especially if all the globalisation components are added simultaneously.

Table 3: Baseline Panel Regression Outcomes - Headcount as Dependent Variable

TABLE 3. Baseline panel regression outcomes cont. with the Dependent variable being the Headcount index

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Trade flows (t-1)	-0.33*	-0.26			-0.25	-0.17								
	[0.17]	[0.17]			[0.19]	[0.17]								
Trade flows (t-1)^2	0.00**	0.00*			0.00	0.00								
	[0.00]	[0.00]			[0.00]	[0.00]								
Restrictions (t-1)			-0.54**	-0.65***	-0.55**	-0.61**								
			[0.23]	[0.24]	[0.26]	[0.27]								
Restrictions (t-1)^2			0.01***	0.01***	0.00**	0.01**								
			[0.00]	[0.00]	[0.00]	[0.00]								
Personal contact (t-1)							-1.16*	-0.75					-0.47	-0.07
							[0.66]	[0.63]					[0.49]	[0.49]
Personal contact (t-1)^2							0.01*	0.01					0.01	0.00
							[0.01]	[0.01]					[0.01]	[0.01]
Information flows (t-1)									-0.85***	-0.81***			-0.92***	-1.00***
									[0.18]	[0.19]			[0.17]	[0.19]
Information flows (t-1)^									0.01***	0.01***			0.01***	0.01***
									[0.00]	[0.00]			[0.00]	[0.00]
Cultural proximity (t-1)											-0.13	-0.07	0.11	0.18**
											[0.13]	[0.11]	[0.10]	[0.09]
Cultural proximity (t-1)^											0.00	0.00	-0.00	-0.00**
											[0.00]	[0.00]	[0.00]	[0.00]
GDP per capita (t)		-9.47**		-11.26***		-10.06**		-12.64***		-14.42***		-9.29**		-11.83***
		[4.40]		[4.19]		[4.39]		[4.51]		[4.38]		[4.43]		[4.09]
Constant	31.19***	103.91***	30.65***	126.28***	41.22***	120.62***	40.72***	134.58***	44.03***	156.04***	16.99***	93.18**	50.21***	136.28***
	[4.58]	[33.62]	[7.80]	[36.22]	[7.50]	[34.88]	[13.48]	[38.14]	[4.21]	[35.68]	[2.60]	[36.87]	[11.64]	[35.83]
R-squared (within)	0.11	0.14	0.19	0.23	0.17	0.21	0.12	0.16	0.19	0.24	0.15	0.18	0.26	0.31
Observations	284	284	277	277	255	255	312	312	318	318	253	253	249	249
Number of countries	99	99	95	95	86	86	109	109	114	114	84	84	81	81

Robust standard errors in brackets.

4.3 Tests for Mechanisms and Robustness

Control variables are added to the baseline regression to acquire more insights into possible mediators associated with how globalisation influence poverty.

Table 4: Description of Controls Variables

Variable	Expected effect
Average education level of the population over 15 years old	Negative, for instance education should reduce poverty
Share of the population residing in urban areas	Ambiguous
Government final consumption expenditure (% GDP)	Ambiguous
Inflation Rate	Positive, for instance higher inflation should increase poverty

While there is no controversy regarding lack of education potentially having adverse effects on poverty, there are divergent views concerning the consequences of urbanisation on poverty. The more pessimistic viewpoint in epidemiological and public health literature contradicts the progressive and positive aspects of the poor moving to cities usually identified by economists and historians. There are good reasons for the expectation that countries with substantial welfare systems will record lower poverty levels based on government consumption. However, high government expenditure is not an indication that a country has a significant Welfare State, several developing states allot a proportionately high portion of public expenditure to the defence sector; this type of government expenditure does not support the poor and may be harmful to them. There is a general assumption that inflation hurts the poor, whose assets are typically unprotected or less protected. If inflation is not anticipated, the allocation of resources will be less effective when trying to minimise the uncertainty of future prices and limit the possibility of progressive redistribution.

4.4 Shifts from Globalisation to Poverty Reduction

A summary of regression results, including control variables are given in table 5, which initially repeats the baseline estimates, in order to facilitate interpretations and comparisons. The subsequent action is controlling government consumption as part of GDP but the variable is insignificant and does not change the other coefficients significantly, indicating that it is no essential mechanism to consider government size in poverty reduction. However, urbanisation negatively correlates with poverty, and it is significant that including the variable does not change the globalisation coefficient. It is surprising the no relationship is found between poverty and education, but inflation is related to lower poverty levels. This unanticipated outcome may partially relate to the reality of many poor people growing their own agricultural produce and sell some of it to purchasers at market prices. Therefore, in this context, the poor are protected against the damaging impacts of inflation.

It is important to evaluate whether the relationship between poverty and globalisation relies on the democracy level, which is attempted by employing the Marshal and Jagger (2009) Polity IV index. This concept of the level of democracy ranges from -10 to +10, with high values representing highly democratic governments. Outcomes from a slightly more significant coefficient, the aggregated globalisation index, and observations with at least a score of 7 in the Polity IV in the regression, suggest that globalisation is insignificant. Similarly, 50 countries were indicated in 115 of these observations, and having an average score of 8.26 in Polity IV. However, the lack of significance in social globalisation conceals the negative impact of information flows and the positive influence of cultural, in the whole sample. The small effect of economic globalisation appears to be driven by restrictions, which is also similar in the entire sample.

These results indicate that the negative coefficient of economic globalisation in less democratic nations is not motivated by restrictions but by trade flows, contradicting the outcome from a separate regression run on the remaining 186 observations using the whole sample. The observations were from 82 countries with an average score of 2.76 Polity IV.

TABLE 5: Shifts from Globalisation to Poverty Reduction

Variation	Composite KOF index		Significant components						Comments
Baseline model	-1.23***	[0.40]	KOF1 (t-1)	-0.83***	[0.25]	Restrictions (t-1)	-0.61**	[0.27]	Baseline estimates
	0.01***	[0.00]		0.01***	[0.00]		0.01**	[0.00]	Corresponds to the results in Table 1 and Table 2
			KOF2 (t-1)	-0.81***	[0.27]	Information flows (t-1)	-1.00***	[0.19]	
				0.01***	[0.00]		0.01***	[0.00]	
						Cultural proximity (t-1)	0.18**	[0.09]	
							-0.00**	[0.00]	
Controlling for government consumption (% of GDP)	-1.22***	[0.40]	KOF1 (t-1)	-0.84***	[0.26]	Restrictions (t-1)	-0.80***	[0.25]	Government consumption negative and insignificant
	0.01***	[0.00]		0.01***	[0.00]		0.01***	[0.00]	
			KOF2 (t-1)	-0.73**	[0.28]	Information flows (t-1)	-1.00***	[0.20]	
				0.01***	[0.00]		0.01***	[0.00]	
						Cultural proximity (t-1)	0.17*	[0.09]	
							-0.00**	[0.00]	
Controlling for urban population (% of total)	-1.21***	[0.39]	KOF1 (t-1)	-0.77***	[0.25]	Restrictions (t-1)	-0.56**	[0.27]	Urban population negative and significant
	0.01***	[0.00]		0.01***	[0.00]		0.01**	[0.00]	
			KOF2 (t-1)	-0.74***	[0.25]	Information flows (t-1)	-0.95***	[0.18]	
				0.01***	[0.00]		0.01***	[0.00]	
						Cultural proximity (t-1)	0.18*	[0.09]	
							-0.00**	[0.00]	
Controlling for education	-1.18***	[0.43]	KOF1 (t-1)	-0.83***	[0.27]	Restrictions (t-1)	-0.59**	[0.28]	Education insignificant in all estimations
	0.01***	[0.00]		0.01***	[0.00]		0.01**	[0.00]	
			KOF2 (t-1)	-0.72***	[0.26]	Information flows (t-1)	-1.04***	[0.21]	
				0.01***	[0.00]		0.01***	[0.00]	
						Cultural proximity (t-1)	0.20**	[0.09]	
							-0.00**	[0.00]	
Controlling for inflation	-1.33***	[0.40]	KOF1 (t-1)	-0.69***	[0.24]	Information flows (t-1)	-0.92***	[0.19]	Inflation negative and significant
	0.01***	[0.00]		0.01***	[0.00]		0.01***	[0.00]	
			KOF2 (t-1)	-0.84***	[0.25]	Cultural proximity (t-1)	0.19**	[0.09]	
				0.01***	[0.00]		-0.00**	[0.00]	
Including all potential mechanisms in the same specification	-1.22***	[0.41]	KOF1 (t-1)	-0.65**	[0.26]	Restrictions (t-1)	-0.55**	[0.27]	
	0.01***	[0.00]		0.01***	[0.00]		0.01**	[0.00]	
			KOF2 (t-1)	-0.64***	[0.23]	Information flows (t-1)	-0.94***	[0.20]	
				0.01***	[0.00]		0.01***	[0.00]	
						Cultural proximity (t-1)	0.19*	[0.09]	
							-0.00**	[0.00]	

TABLE 5: Shifts from Globalisation to Poverty Reduction (continued)

Including economic and social globalization in the same specification			KOF2 (t-1)	-0.79** 0.01***	[0.34] [0.00]				
Interaction term between economic and social globalization			KOF1(t-1)*KOF2(t-1)	-0.012	[0.01]				
Only including observations for democracies	-1.42** 0.01**	[0.62] [0.00]	KOF1 (t-1)	-0.64* 0.01**	[0.34] [0.00]	Restrictions (t-1) Information flows (t-1) Cultural proximity (t-1) 	-0.60** 0.01*** -0.67*** 0.00*** 0.23* -0.00**	[0.27] [0.00] [0.20] [0.00] [0.12] [0.00]	Sample consists of observations with a Polity IV index equal or larger than 7
Only including observations for non-democracies	-0.97* 0.01**	[0.55] [0.00]	KOF1 (t-1) KOF2 (t-1)	-0.86** 0.01** -1.00** 0.01***	[0.43] [0.01] [0.45] [0.00]	Trade flows (t-1) Information flows (t-1) 	-0.51* 0.00 -0.71** 0.01**	[0.30] [0.00] [0.30] [0.00]	Sample consists of observations with a Polity IV index lower than 7

Robust standard errors in brackets.
*, **, and *** denote statistical significance at the 10 %, 5%, and 1% levels, respectively.

4.5 Interaction Effects

The variability in the influence of globalisation on poverty may originate from discontinuities and especially institutions as a significant perimeter for the globalisation effect on the poor. This argument suggests that it is necessary to evaluate instances of a strong relationship. In table 6 the results regarding association between various factors and globalisation dimensions are reported. Globalisation seems to reduce poverty in nations with a large informal sector and the outcomes indicate that globalisation greatly benefits the rural poor. Additionally, there is an evaluation of the potential complimentary factors between social and economic globalisation although no significant interaction influence is found.

Table 6: Interaction Effects

	KOF(t-1)	KOF1(t-1)	KOF2(t-1)	Comments
Urban population (t-1)	0.012***	0.009***	0.010***	Positive significant interaction with trade flows
	[0.003]	[0.003]	[0.003]	
Size of formal sector (t-1)	0.014***	0.012**	0.018**	Limitied data on size of formal sector
	[0.005]	[0.005]	[0.007]	- results from pooled regressions (incl. regional dummies)
				Positive significant interactions with restristions & cultural proximity
Rule of Law (t-1)	-0.008	0.007	-0.003	Negative significant interaction with information flows
	[0.005]	[0.005]	[0.004]	
Level of democracy (t-1)	0.011	0.007	0.009	Negative significant interaction with cultural proximity
	[0.013]	[0.010]	[0.010]	
Level of education (t-1)	0.005	0.004	0.002	Positive significant interaction with trade flows
	[0.004]	[0.004]	[0.003]	
Level of corruption (t-1)	-0.001	0.006	0.002	Positive significant interaction with cultural proximity
	[0.004]	[0.004]	[0.004]	
Government expenditure (t-1)	0.016	0.007	0.013	Positive significant interaction with cultural proximity
	[0.012]	[0.011]	[0.011]	

Robust standard errors in brackets.
*, **, and *** denote statistical significance at the 10 %, 5%, and 1% levels, respectively.

Table A4 in the Appendix presents some results to test the robustness of the baseline findings using panel regression. The results are generated using alternative poverty measures, excluding observation with extreme globalisation and poverty values, using globalisation in period t-1 only and not in t, omitting various geographical regions, and changing the identification to a random effect model. Overall baseline outcomes are vital for several corrections, indicating that globalisation is positive for the poor. More

significant information flows and more liberal trade restrictions, in particular, correlate with absolute poverty.

4.6 The Long-Term Interaction between Poverty and Globalisation

The interaction between poverty and the development of globalisation can be studied as an alternative to the panel specification by considering the variation in both factors over a long period. The regression model is:

$$\Delta Poverty_i = \alpha + \beta_1(\Delta Glob_i) + \beta_2(X_i) + \varepsilon_i \qquad (2)$$

Where $\Delta Poverty_i$ represents the variation in poverty in country i throughout a specific period.

The specification optimises the probability of recognising the mechanisms that reduce in the long term owing to increasing growth and the length of the period is optimised for every country. Consequently, the dependent variable might align with shifts in poverty for various countries at various time period. The only changes that are included are those that occur after 10 to 15 years, countries with poverty information in two adjacent periods are omitted to assist in separating the analysis from panel examination.

$\Delta Glob_i$ represents the globalisation in country i and matches the number of years the relevant country had been identified as experiencing poverty, for example, Zambia for all the panel periods. Therefore, the calculation of the change in poverty is conducted by subtracting the poverty level in 1990 from the poverty level in 2005. Similarly, a calculation of the change in globalisation in Zambia is associated with the fifteen-year period. A one time period is then used to lag the change in globalisation to overcome possible reverse casualty. The variable is developed using globalisation data for 1985 and 1970 in the Zambian example.

An examination of the initial difference includes all time invariant country attributes into an error segment and robustly measures the association of poverty with globalisation to

latent heterogeneity as a consequent of time invariant effects. However, specifications include data on economic progress and initial poverty, indicating the poverty status in the earliest year of poverty for every country. The baseline results are recorded in table 7, which table A5 in the Appendix; it presents the sensitivity analysis of the long-term interaction estimates. The long term first difference evaluation generally proves the past outcomes, although economic growth reduces poverty, it does not become the most critical mediator even in the long-term perspective. The inference is that the most significant part of the effect of globalisation on poverty reduction is mediated by other factors. The results confirm that trade restrictions and information flows are important whilst the positive impact of cultural proximity on poverty that became evident in some of the panels disappears in the long-term perspective.

Table 7: The Long-Term Relationship between Globalisation and Poverty – Baseline Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
ΔKOF	-0.731***	-0.549***											
	[0.189]	[0.203]											
ΔKOF1			-0.278**	-0.235*									
			[0.119]	[0.119]									
ΔKOF2					-0.739***	-0.625***							
					[0.156]	[0.163]							
ΔFlows							-0.091		-0.081				
							[0.079]		[0.083]				
ΔRestrictions								-0.212*	-0.208*				
								[0.106]	[0.106]				
ΔPersonal contact										-0.227			-0.071
										[0.242]			[0.244]
ΔInformation flows											-0.419***		-0.385***
											[0.117]		[0.122]
ΔCultural proximity												-0.113*	-0.068
												[0.0573]	[0.058]
Initial poverty	-0.292***	-0.299***	-0.233***	-0.263***	-0.335***	-0.336***	-0.238***	-0.229***	-0.235***	-0.233***	-0.252***	-0.267***	-0.279***
	[0.054]	[0.053]	[0.055]	[0.052]	[0.057]	[0.054]	[0.062]	[0.062]	[0.063]	[0.059]	[0.055]	[0.067]	[0.064]
Economic growth		-0.067**		-0.087***		-0.054**	-0.069***	-0.071***	-0.069***	-0.077***	-0.056**	-0.079***	-0.055**
		[0.028]		[0.025]		[0.025]	[0.021]	[0.018]	[0.019]	[0.021]	[0.024]	[0.025]	[0.027]
Constant	13.51***	13.55***	5.331**	8.782***	14.19***	14.65***	4.974**	7.362***	8.404***	4.235**	13.17***	7.236***	14.59***
	[3.605]	[3.605]	[2.270]	[2.369]	[3.320]	[3.065]	[1.925]	[2.537]	[2.521]	[1.730]	[3.395]	[2.693]	[3.856]
Observations	70	70	70	70	71	71	59	59	59	59	59	59	59
R-squared	0.356	0.405	0.280	0.374	0.465	0.496	0.309	0.343	0.349	0.296	0.434	0.323	0.446

Robust standard errors in brackets.*, **, and *** denote statistical significance at the 10 %, 5%, and 1% levels, respectively.

Chapter 5: Discussion

5.1 Globalisation Influencing Poverty in Developing Countries

The study tests the mechanisms and links between globalisation to poverty and its findings have revealed several interesting relationships. No evidence has emerged that an increase in poverty levels in developing countries is a consequence of globalisation. While cause and effect relationships were not identified, the association between poverty and the lagged aggregate KOF globalisation Index is negative and significant in almost all regressions. In the case of Bangladesh, the extent of this effect is demonstrated by the increase in its KOF value from 8 to 30 between 1980 and 2000 and this research estimates that this KOF increase translates to a fall in absolute poverty of 12 percentage points. The extent of the impact is not particularly exceptional since it merely suggests that reducing poverty by half a standard deviation requires a two-standard deviation in globalisation but that this phenomenon occurs in addition to the reduction in GDP growth.

It is evident that globalisation significantly affects the world's poor, which has ignited a vigorous debate because some groups of experts support the argument, whereas others claim that no significant correspondence between poverty and globalisation exists. The primary aspect of globalisation, which influences poverty is economic growth, because globalisation facilitates the opening of national borders to foreign investors which leverages trade and other economic activities. These subsequently increase the average income and living standards in the country. Diverse studies have supported the notion of a relationship between increasing globalisation and absolute poverty in developed and developing nations. However, the research outcomes fail to prove the actual influence of globalisation on poverty because of the data limitations on which the findings are founded. The unavailability of reliable data has made it impossible for researchers to offer conclusive findings on the association between absolute poverty and globalisation. most rely on theoretical assumptions. However, research has indicated that globalisation influences poverty in the short term, whether it affects economic growth or not A more in-depth investigation of the factors involved in the index showed that information flows and lower trade restrictions are strongly associated with reduced poverty levels. The

outcomes also indicate that as globalisation impacts on countries it supports reduction in poverty in the rural and informal sectors most.

5.2 Poverty Reduction and Globalisation Growth

This research provides evidence that poverty reduction is not generally mediated most by the growth associated with globalisation. The standard approach appears to be robust when trade flows are analysed in isolation, with the presumption that trade generates growth, which subsequently lowers poverty. The short- and long-term evaluations indicate that, on average, lower poverty results from higher trade flows; the impact is insignificant provided that controls for growth or income are in place. A precise interpretation is needed to show that trade restrictions become stronger than trade flows, for instance, Deaton (1995) proposed that there might be an upward bias in trade data owing to the excessive invoicing of imports, a technique usually employed when individuals in developing countries transfer funds abroad, which generates systematic bias in national accounts and trade data. A relatively large poverty reducing impact remains for information flows and trade restrictions after controlling for per capita GDP, indicating that the standard method underscores the effect of globalisation on poverty reduction. It is difficult to explain how globalisation reduces poverty if this cannot be linked economic growth, although a potential explanation is that income distribution may favour a higher increase for the poor than the average citizen. Another possibility is that the GDP data measurement errors generate such results; an increase in productivity in the informal and subsistence sectors, which is insufficiently captured by GDP data (Heston, 1994). The interaction effects support this explanation that globalisation effects can reduce poverty in countries with larger rural and informal sectors. Therefore, it is essential to interpret the results precisely, and to subsequently suggest that this association may be found when GDP data captures actual growth in countries with larger informal and rural sectors. Several low-income countries have resorted to external economic liberalisation initiatives in the recent past, which has attracted debate. However, the analysis conducted in this research indicates that the fundamental premises of the previous and current poverty reduction approaches are correct and that it would be possible to reduce poverty by closely integrating the economy and maintaining higher globalisation levels. The results recorded in table 5

suggest that the size of the government is not a significant aspect in reducing poverty and that even if it is huge, it cannot be included in the mechanisms support poverty reduction in a country. Although countries with more extensive welfare systems are expected to record lower poverty levels, substantial government expenditure does not translate to a more significant welfare state and Anderson et al. (2018) suggest that a welfare state may harm the poor rather than supporting them.

5.3 Urbanisation's Influence on Poverty

Urbanisation has negatively affected poverty, which contradicts the previous view but conforms with a newer perception. An unexpected result indicated that inflation is related to lower poverty levels, partially defined by the reality that many poor people consume crops that they grow and sell to the market. Consequently, the poor are protected against the adverse impacts of inflation, whilst inflation affects consumers directly when they purchase products from the market. The poor who engage in crop production reside in the rural areas and this may explain the association of urbanisation with continuing poverty, as Kuddus et al. (2020).

5.4 Democracy Mediating Poverty and Globalisation Relationship

This study also investigated whether the level of democracy influenced the relationship between globalisation and poverty using the Polity IV Index, and found that higher values of the Index suggested more democratic regimes. The results indicated that social democracy is insignificant, and that this insignificance conceals the positive effect of cultural proximity and the negative effect of information flows. It is also notable that the influence of economic globalisation on poverty is determined by the extent of restrictions. An observation from the study on democratic countries indicated a Polity IV score of 8.26, which is a high value, suggesting that stable democracy aligns with a positive relationship between globalisation and poverty as confirmed by Brady et al. (2017) who suggests that political factors greatly influence globalisation and impacting on poverty in a particular country.

Globalisation involves interaction among nations and the more democratic the regime the more likely it is that it will embrace globalisation initiatives to improve economic activity and improve living standards. Less democratic regimes discourage financial investors, who participate in promoting economic, social, or political globalisation. Therefore, since globalisation reduces poverty in favourable circumstances, a lack of democracy will discourage globalisation inferring an increase in poverty in undemocratic nations. However, the level of democracy does not necessarily directly influence the level of poverty, for instance this research indicated that less democratic countries experienced trade flows underpinning the negative coefficients on economic globalisation. rather than restrictions. In addition, Ayenagbo (2021) suggests that the variability in the effect of globalisation on poverty levels could stem from discontinuities; institutions are a vital factor determining the influence of globalisation on poverty. This research also showed how other factors interacted with globalisation, table 6, and although the quality of institutions does not influence the association between poverty and globalisation, globalisation is suggested as reducing poverty in countries with a vast informal sector. The quality of institutions only affects the level and quality of services provided and does not impact the poor since no correlation is found between them.

5.5 Globalisation for Contemporary Change Among the Rural Poor

The results also indicated that the rural poor greatly benefit from globalisation confirming Woods (2017) that globalisation is a significant driver of contemporary change in rural areas because it intensifies, stretches, and multiplies economic, social, cultural, and political interactions spatially. Most rural areas rely on farming and comprise the agricultural sector and related produce, and have been affected by the increasing international migration flows, the integration of the global economy and growing standardisation of values and global consciousness. These developments challenge traditional cultures, instigating land management, agriculture development and restructuring of populations.

In recent years, globalisation has been associated with a reduction in cross-border farm products grown by rural communities as it is challenging for the rural poor to access large

or international markets for their products without support from stakeholders. However, globalisation enables access to external markets, creating competition that helps to maintain fair prices; cross-border trade guarantees the income of the rural poor. These are significant factors that may enable the poor to improve their social status, as Anderson (2010) confirms. Therefore, the rural poor will be influenced by any event resulting from globalisation, for instance the information and communication technology revolution has been the primary driver of this situation. The globalisation process influences a particular rural setting, partly based on the responses of rural communities partly by mobilising protests and by economic development strategies. The rural poor's economic activities have ensured that globalisation is an automatically positive factor in their financial status.

Identifying the aspects of the globalisation process that may harm the poor is very challenging, even the strong pro-globalisation groups acknowledge that trade reforms undertaken in developing countries could result in unemployment and poverty as a result of distortion of their labour markets. Poor labour mobility and low degree of wage flexibility across sectors are among the omnipresent distortions in the labour market. Therefore, globalisation can help to reduce poverty among the rural poor, making the relationship between them positive. This study determined the robustness of the results by using panel regression, which showed that overall baseline outcomes are robust in regard to several changes and indicates that globalisation is good for the poor. The research also showed the long-term effects of globalisation on poverty, changes occurring over 10 to 15 years and indicated that extended periods of growth do not reduce poverty. However, although long run increases in growth do not reduce poverty levels, it is not a critical factor in the long-term perspective since the effects of globalisation for reducing poverty level are mediated by other elements.

5.6 Influence of Inflation on Poverty

The effect of inflation on poverty was another factor for consideration in this research, and the findings indicated that inflation harms the poor if is not anticipated. The study suggests that inflation is associated with lower levels of poverty but this unanticipated finding may result from the poor consuming own crops and selling part of their produce

to other consumers at market prices. Inflation affects other consumers directly when they purchase products from the market.

Chapter 6: Conclusion

The research question is answered in this section.

RQ: How does globalisation influence absolute poverty in developed and developing nations?

Poverty remains one of the most significant global challenges in developed and developing countries. Globalisation is a major factor, which is recognised as considerably influencing poverty worldwide but is judged both to lead to poverty and conversely as offering a solution to it. The inference is that the relationship between globalisation and poverty is complex. Additional effects of globalisation range from international migration issues, to increasing levels of communication and transportation, and movement of capital associated with trade and services. Globalisation influences many lives, significantly increasing economic interdependence among countries, Natural, legal, socio-cultural, economic, and political factors influence globalisation and are simultaneously influenced by it. Globalisation has been associated with development, poverty reduction being among the associated development goals, and interest in the relationship has grown due to the participation of many low income and developing countries.

Supporters of globalisation propose that poverty is reduced by globalisation, which is the principal driver of growth, and that those who are critics are ignorant or have vested interests. The World Bank is a major advocate of globalisation, promoting its positive impact on lowering the levels of poverty, whilst supporting the development of world economies. It is also suggested that lack of trade openness could increase inequality, and that open developing economies had achieved higher reduction in poverty levels than closed economies. However, economic growth has not been found to be the core reason for reduction in poverty.

In recent decades many low-income countries have participated in external economic liberalisation initiatives, which have consequently attracted more debate. Evidence that supports globalisation as reducing poverty receives sceptical reactions from some groups that consider it as negatively impacting on the power of poorer societal groups whilst simultaneously increasing the power of wealthier groups, for instance, transnational companies are deemed to acquire excessive market and political power.

The relationship between globalisation and poverty is subject to diverse interpretation, many groups consider the globalisation process a critical economic growth driver that creates unprecedented gains in human welfare, whilst others express the opposite opinion. The World Bank promotes globalisation as positively affecting living standards and income in various parts of the world. However, other groups including governments and non-governmental organisations argue that most of the poor are unable to access the benefits of globalisation. The relationship between globalisation and poverty, whether positive or negative, is undisputed, some propose that the rich continuously amass wealth through globalisation, whilst others are subjected to increasing absolute poverty. Institutions such as World Bank believe that globalisation reduces poverty by its capacity to allow low income and developing countries to access international markets, which increases income and creates job opportunities for the poor. Globalisation allows the population in the poorest areas to move into towns and cities, in which better paid jobs are available and living standards higher. However, using globalisation to avail job opportunities in developing nations is no guarantee of a reduction in absolute poverty. Individuals in developing countries acquire low paid work because they lack the required experience and skills to be considered for higher paid labour. This situation is worsened when foreign companies recompense qualified workers in developing economies with low pay rates compared to those in developed nations; pay rates are based on the living standards of the particular economy. Therefore, this labour rate trend does not allow the working class to positively influence the lives of the poor indicating a disadvantage of globalisation.

Measuring globalisation and associated poverty levels is necessary but challenging, for instance, the World Bank's measure of one dollar a day as the poverty line has attracted

substantial criticism because it is too low. Reducing poverty to a monetary measure of purchasing power would be inappropriate since poverty is a multidimensional concept. Comparability in absolute purchasing power is more applicable when there is variation in prices between countries. Intense discussion has occurred regarding the best measure for economic globalisation or economic openness; although trade flows are associated with growth, the studies based on such findings do not prove that growth necessarily results from policies of economic openness and it is not necessarily possible to realise higher trade flows by means of increased trade restrictions. Globalisation involves more aspects than economic openness and the KOF Index has been proposed by various researchers as the preferred measure of globalisation. The index employs principal components analysis to quantify political, social, and economic globalisation to establish and aggregate an index comparable between countries. There is also significance in focusing on the association between economic and social globalisation and poverty, ignoring the political aspects of globalisation. It is more difficult to interpret indicators of political globalisation because simple theoretical predictions regarding the effect of the indicators on poverty do not exist, and severe problems of reverse casualty are common. However, political globalisation can be included when using the aggregate index to measure globalisation outcomes based on the KOF Index creators and in relation to poverty measurement, many countries prefer to measure it by considering income rather than consumption expenditure. Income is preferable because it comparatively easy to measure relative to consumption expenditure which is complex and challenging to quantify; developing countries mostly consider consumption expenditure when measuring poverty. Defining poverty is usually the most challenging process in practical poverty measurement. The poverty line measure is critical and should comprise food energy intake and the cost of basic needs but evaluations remain subjective. Although it is possible to measure poverty trends in countries using national poverty lines, it is not applicable when comparing poverty trends across countries. Every country has a different poverty line selection, depending on family composition or on regional differences. The preferred poverty measurement techniques depend on the intended use of the measurements. Absolute poverty lines are applicable on a national or international basis. Several countries consider absolute poverty lines, modified for inflation, which stay fixed

for some period to allow for contrast with previous anti-poverty policy levels and judgement. A change in absolute poverty lines indicates a switch in consumption behaviour if it is possible compare it to the previous absolute poverty lines.

Globalisation also influences urbanisation and is expected to encourage it; therefore, it is vital to determine the impact of urbanisation on poverty. In this study, the relationship was found to be negative. Inflation is an additional factor to consider when understanding the status of poverty; inflation is regarded as associated with less poverty because the poor grow crops for own consumption and sell the excess at market prices. Therefore, the poor are protected against the worst impacts of inflation. Democracy may influence how globalisation spreads across a country and effects the poor, but it was found to have no significant influence on the national poverty status.

Poverty has been a reality in developed and developing countries for many decades and several attempts have been made to mitigate or reduce societal poverty levels. Although all the initiatives to reduce poverty have good intentions, not all initiatives are successful in all countries. Globalisation is an essential factor in defining poverty in the current generation because it can support or harm the poor; it has aided business and all economic activities, which generally impact the lives of all citizens at different levels. The poor can take advantage of the opportunities of globalisation to make a better lifestyle for instance by cross-border business which is not subjected to tariffs. However, at other levels such as education, globalisation does not influence the lives of the poor.

Bibliography

Agenor, P.-R. (2004). Does globalisation hurt the poor? *International Economics and Economic Policy*, 1(1):21-51.

Aisbett, E., Harrison, A., & Zwane, A. P. (2005). Globalisation and Poverty: What is the evidence? *Paper prepared for the conference in honour of J Bahagwati "Globalisation: Prospects and Problems"*.

Aker, J. C. & Mbiti, I. M. (2010). Mobile Phones and Economic Development in Africa. *Journal of Economic Perspectives*, 24(3), 207–32.

Anderson, E., d'Orey, M. A. J., Duvendack, M., & Esposito, L. (2018). Does Government Spending Affect Income Poverty? A Meta-regression Analysis. *World Development*, 103, 60-71. doi.org/10.1016/j.worlddev.2017.10.006.

Anderson, K. (2010). Globalisation's effects on world agricultural trade, 1960–2050. *Philos Trans R Soc Lond B Biol Sci*, 365(1554). Doi: 10.1098/rstb.2010.0131.

Arribas, I., Perez, F., & Tortosa-Ausina, E. (2009). Measuring Globalisation of International Trade: Theory and Evidence. *World Development*, 37(1):127-127.

Ayenagbo, K. (2021). Transmission Mechanisms through Which Institutions Mediate the Process of Globalisation to Influence Poverty Levels. *Modern Economy*, 2(4). 10.4236/me.2021.124039.

Bardhan, P. (2003). Globalisation and the limits to poverty. *University of California at Berkeley*, Retrieved from http://www.dagliano.unimi.it/media/LecturePranabBardhan.pdf.

Bergh, A. & Nilsson, T. (2010). Do liberalization and globalisation increase income inequality? *Forthcoming in European Journal of Political Economy*.

Bergh, A. & Nilsson, T. (2011). Globalisation and Absolute Poverty – A Panel Data Study. *IFN Working Paper No. 862, 2011*.

Bhagwati, J. & Srinivasan, T. N. (2002). Trade and Poverty in the Poor Countries. *American Economic Review*, 92(2):180-183.

Bourguignon, F. J. (2004). The Poverty-growth-inequality triangle. *Indian Council for Research on International Economic Relations, New Delhi Working Papers*, 125.

Brady, D., Blome, A., & Kleider, H. (2017). How Politics and Institutions Shape Poverty and Inequality. *The Oxford Handbook of the Social Science of Poverty,* 10.1093/oxfordhb/9780199914050.013.

Calgar, U., Simsek, H., & Siriner, I. (2019). *Current Debates in Economic Growth & Public Finance & Game Theory.* Ijopec Publication.

Chao, C. C., Hazari, B. R., & Sgro, P. M. (2004). Tourism, globalisation, social externalities, and domestic welfare. *Research in International Business and Finance*, 18(2), 141-149.

Collier P. & Dollar, D. (2002). *Globalisation, Growth, and Poverty: Building an inclusive World Economy.* New York: Oxford University Press.

Corneli, F. (2021). Financial Integration Without Financial Development. *Atlantic Economic Journal*, 49, 202-220. doi.org/10.1007/s11293-021-09709-2.

Deaton, A. (2010). Price Indexes, Inequality, and the Measurement of World Poverty. *The American Economic Review*, 100(1):5-34.

Dollar, D. & Kraay, A. (2004). Trade, Growth and Poverty. *The Economic Journal,* 114(493): F22-F49.

Dreher, A. (2006). The Influence of Globalisation on Taxes and Social Policy – an Empirical Analysis for OECD Countries. *European Journal of Political Economy*, 22(1), 179-201.

Dreher, A., Gaston, N, & Martens, P. (2008). *Measuring Globalisation: Gauging Its Consequences.* Springer.

Elbers, C. & Lanjouw (2001). Intersectoral Transfer, Growth, and Inequality in Rural Ecuador. *World Development*, 29(3), 481-496.

Forestier, E., Grace, J., & Kenny, C. (2002). Can information and communication technologies be pro-poor? *Telecommunications Policy,* 26(11), 623-646.

Harrison, A. & McMillan, M. (2007). On the links between globalisation and poverty. *Journal of Economic Inequality*, 5(1):123-134.

Hart, C. (2010). *Doing a Literature Review*, London: Sage.

Hyeon-Seung, H. & Cyn-Young, P. (2019). A New Index of Globalisation: Measuring Impacts of Integration on Economic Growth and Income Inequality. *Economics Working Papers*, http://dx.doi.org/10.22617/WPS190245-2.

Kalwij, A. & Verschoor, A. (2007). Not by growth alone: The role of the distribution of income in regional diversity in poverty reduction. *European Economic Review*, 51(4), 805-805.

Kawachi, I. & Wamala, S. (2007). *Globalisation and Health.* Oxford. Oxford University Press.

Kawano, H., Ohta, H., Jensen, B. S., & Hwang, A. R. (2017). Production, Distribution, and Trade: General Equilibrium Models with One Single Cobb-Douglas Parameter. *Modern Economy*, 8(7). DOI: 10.4236/me.2017.87068.

Kuddus, M. D., Tynan, E., & McBryde, E. (2020). Urbanization: a problem for the rich and the poor? *Public Health Reviews*, 41(1). doi.org/10.1186/s40985-019-0116-0.

Lindbeck, A. (1975). Business Cycles, Politics, and International Economic Dependence. *Skandinaviska Enskilden Bank Quarterly Review*, 2, 53-68.

Lundberg, M. & Lyn, S. (2003). The Simultaneous Evolution of Growth and Inequality. *Economic Journal,* 113(487):326-344.

Medez, A. & Popkin, B. M. (2004). Globalisation, Urbanization and Nutritional change in the Developing world. *Journal of Agricultural and Development Economics*, 1(2), 220-241.

Milanovic, B. & Squire, L. (2006). *Does tariff liberalization increase inequality? Some empirical evidence.* In A.e. Harrison (Ed.): Globalisation and Poverty.: University of Chicago Press NBER (2006).

Naceur, S. B. & Zhang, R. (2016). Financial Development, Inequality and Poverty: Some International Evidence. *IMF Working Paper*, Retrieved from https://www.imf.org/external/pubs/ft/wp/2016/wp1632.pdf.

Nwaka, I. D., Uma, K. E., & Tuna, G. (2015). Trade openness and unemployment: Empirical evidence for Nigeria. *The Economic and Labour Relations Review*, 26(1), 117-136. doi.org/10.1177/1035304615571225.

Rahim, H. L., Abidin, Z. Z., Ping, S. D., Alias, M. K., & Muhamad, A. (2014). Globalisation and its Effect on World Poverty and Inequality. *Global Journal of Management and Business*, 1(2), 8-13. Retrieved from https://repository.upenn.edu/cgi/viewcontent.cgi?article=1079&context=bepp_papers.

Ravallion, M. (2010). *A Reply to Reddy and Pogge.* In S. Anand, P. Segal, and J. Stiglitz (Eds.), Debates in the Measurement of Global Poverty: Oxford University Press.

Ravallion, M. (2016). *The Economics of Poverty: History, Measurement, and Policy.* Oxford University Press.

Rodriguez, F. & Rodrik, D. (2000). Trade policy and economic growth: a skeptic's guide to the cross-national evidence. *NBER Macroeconomics Annual*, 261–325.

Rodrik, D. (1998). Why do more open economies have bigger governments? *The Journal of Political Economy*, 106(5), 997-1032.

Sachs, J. D. & Warner, A. (1995). Economic reform and the process of global integration. *Brookings Papers on Economic Activity*, (1):1-119.

Salvatore, D. & Campano, F. (20012). Globalisation, Growth, and Poverty. *Global Economy Journal*, DOI: 10.1515/1524-5861.1912.

Saunders, M., Lewis, P., & Thornhill, A. (2019), Research Methods for Business Students. (8th ed.). Harlow: Pearson.

Segal, M. & Brawly, M. R. (2009). Unemployment, Trade Liberalization and Adjustment in Post-Transition South Africa. *Journal of Asian and African Studies*, 44(6), 698-718. doi.org/10.1177/0021909609350041.

Sinn, H. W. (1997). The Selection Principle and Market Failure in Systems Competition. *Journal of Public Economics*, 66, 247-274.

Stark, O. (2004). Rethinking the Brain Drain. *World Development,* 32(1):15-22.

United Nations. (2005). Report on the World Social Situation 2005: the Inequality Predicament. Available at http://www.eclac.cl/prensa/noticias/comunicados/8/22388/WSS_Main.pdf.

Woods, M. (2017). Globalisation and Rural Areas. *Wiley Online Library*, doi.org/10.1002/9781118786352.wbieg0189.

World Bank. (2010). World Development Indicators. *World Bank*.

Appendix

TABLE A1. Descriptive statistics

Variable	Mean	Std. Dev.	Min	Max	Source
Headcount	24,80	25,29	0,00	92,55	World Bank 2010a
Poverty gap	9,82	12,44	0,00	63,34	World Bank 2010a
Squared poverty gap	5,35	7,99	0,00	48,51	World Bank 2010a
KOF	45,41	12,19	17,11	80,46	Dreher et al. 2008
KOF1	45,96	14,62	10,66	88,17	Dreher et al. 2008
KOF2	38,83	15,94	9,09	82,75	Dreher et al. 2008
Flows	51,95	17,61	8,76	92,21	Dreher et al. 2008
Restrictions	45,27	17,05	10,16	93,59	Dreher et al. 2008
Personal contact	37,13	16,40	8,74	79,23	Dreher et al. 2008
Information flows	42,33	18,98	6,29	88,34	Dreher et al. 2008
Cultural proximity	35,46	22,26	1,00	85,98	Dreher et al. 2008
Ln Real GDP per capita (PPP)	8,01	0,95	5,58	10,07	World Bank 2010b
Economic growth	10,81	20,07	-64,87	96,97	World Bank 2010b
Government expenditure (percent of GDP)	13,74	5,07	3,65	32,79	World Bank 2010b
Urban population (share of total)	47,98	20,21	6,28	92,19	World Bank 2010b
Inflation	2,37	1,33	-0,12	7,79	World Bank 2010b
Primary education	5,46	1,01	3,00	8,00	World Bank 2010b
Polity2	2,80	6,22	-9,00	10,00	Marshall and Jaggers 2009
East Asia & Pacific	0,12	0,32	0,00	1,00	World Bank 2010b
Europe and Central Asia	0,24	0,43	0,00	1,00	World Bank 2010b
Latin America and the Caribbean	0,25	0,43	0,00	1,00	World Bank 2010b
Middle East and North Africa	0,07	0,26	0,00	1,00	World Bank 2010b
South Asia	0,06	0,23	0,00	1,00	World Bank 2010b
sub-Saharan Africa	0,26	0,44	0,00	1,00	World Bank 2010b

TABLE A2. Sample coverage

Albania	Colombia	Indonesia	Nicaragua	Togo
Algeria	Congo, Dem. Rep.	Iran, Islamic Rep.	Niger	Trinidad and Tobago
Angola	Congo, Rep.	Jamaica	Nigeria	Tunisia
Argentina	Costa Rica	Jordan	Pakistan	Turkey
Armenia	Cote d'Ivoire	Kazakhstan	Panama	Uganda
Azerbaijan	Croatia	Kenya	Papua New Guinea	Ukraine
Bangladesh	Dominican Republic	Kyrgyz Republic	Paraguay	Uruguay
Belarus	Ecuador	Latvia	Peru	Venezuela, RB
Benin	Egypt, Arab Rep.	Lesotho	Philippines	Vietnam
Bolivia	El Salvador	Lithuania	Poland	Yemen, Rep.
Bosnia and Herzegovina	Estonia	Macedonia, FYR	Romania	Zambia
Botswana	Ethiopia	Madagascar	Russian Federation	
Brazil	Gabon	Malawi	Rwanda	
Bulgaria	Gambia, the	Malaysia	Senegal	
Burkina Faso	Georgia	Mali	Sierra Leone	
Burundi	Ghana	Mauritania	Slovenia	
Cambodia	Guatemala	Mexico	South Africa	
Cameroon	Guinea-Bissau	Moldova	Sri Lanka	
Cape Verde	Guyana	Mongolia	Suriname	
Central African Republic	Haiti	Morocco	Swaziland	
Chad	Honduras	Mozambique	Tajikistan	
Chile	Hungary	Namibia	Tanzania	
China	India	Nepal	Thailand	

TABLE A3. Sensitivity tests

Variation	Composite KOF index		Significant components						Comments
Baseline model	-1.23***	[0.40]	KOF1 (t-1)	-0.83***	[0.25]	Restrictions (t-1)	-0.61**	[0.27]	Baseline estimates: Corresponds to the results in Table 1 and Table 2 when GDP is controlled for.
	0.01***	[0.00]		0.01***	[0.00]		0.01**	[0.00]	
			KOF2 (t-1)	-0.81***	[0.27]	Information flows (t-1)	-1.00***	[0.19]	
				0.01***	[0.00]		0.01***	[0.00]	
			KOF3 (t-1)	0.48**	[0.19]	Cultural proximity (t-1)	0.18**	[0.09]	
				-0.00**	[0.00]		-0.00**	[0.00]	
Random effects (RE) model	-1.22***	[0.37]	KOF1 (t-1)	-0.97***	[0.21]	Trade flows (t-1)	-0.25*	[0.15]	
	0.01***	[0.00]		0.01***	[0.00]		0.00*	[0.00]	
			KOF2 (t-1)	-0.92***	[0.23]	Restrictions (t-1)	-0.68***	[0.19]	
				0.01***	[0.00]		0.01***	[0.00]	
			KOF3 (t-1)	0.47***	[0.17]	Personal contact (t-1)	-0.67*	[0.38]	
				-0.00***	[0.00]		0.01**	[0.00]	
						Information flows (t-1)	-1.12***	[0.18]	
							0.01***	[0.00]	
						Cultural proximity (t-1)	0.28***	[0.09]	
							-0.00***	[0.00]	
Controling for non-lagged globalization	-0.92***	[0.33]	KOF1 (t)	-0.74***	[0.25]	Information flows	-0.91***	[0.19]	
	0.01***	[0.00]		0.01***	[0.00]		0.01***	[0.00]	
			KOF2 (t)	-1.04***	[0.26]				
				0.01***	[0.00]				
			KOF3 (t)	0.57***	[0.21]				
				-0.00**	[0.00]				
Excluding extreme values of globalization	-1.49***	[0.43]	KOF1 (t-1)	-0.97***	[0.28]	Restrictions (t-1)	-0.63**	[0.29]	Excluding index observations further than 2 standard deviations away from the sample mean
	0.02***	[0.00]		0.01***	[0.00]		0.01**	[0.00]	
			KOF2 (t-1)	-0.84***	[0.30]	Information flows (t-1)	-1.03***	[0.22]	
				0.01***	[0.00]		0.01***	[0.00]	
						Cultural proximity (t-1)	0.24**	[0.11]	
							-0.00**	[0.00]	

Robust standard errors in brackets.

*, **, and *** denote statistical significance at the 10 %, 5%, and 1% levels, respectively.

Table A4. Sensitivity tests, cont.

Variation	Composite K Index		Significant components						Comments
Excluding extreme values of poverty	-1.14***	[0.40]	KOF1 (t-1)	-0.82***	[0.25]	Restrictions (t-1)	-0.64**	[0.27]	Excluding headcount observations further than 2 standard deviations away from the sample mean
	0.01***	[0.00]		0.01***	[0.00]		0.01**	[0.00]	
			KOF2 (t-1)	-0.84***	[0.27]	Information flows (t-1)	-0.99***	[0.19]	
				0.01***	[0.00]		0.01***	[0.00]	
Alternative measure of poverty - Poverty gap	-0.66***	[0.24]	KOF1 (t-1)	-0.49***	[0.16]	Restrictions (t-1)	-0.37**	[0.17]	Using the squared poverty gap as the dependent variable generates similar results
	0.01***	[0.00]		0.01***	[0.00]		0.00**	[0.00]	
						Information flows (t-1)	-0.45***	[0.11]	
							0.00***	[0.00]	
						Cultural proximity (t-1)	0.14**	[0.06]	
							-0.00**	[0.00]	
Excluding sub-Saharan African countries (36 countries)	-1.18***	[0.43]	KOF1 (t-1)	-0.67**	[0.28]	Restrictions (t-1)	-0.81***	[0.29]	
	0.01***	[0.00]		0.01**	[0.00]		0.01**	[0.00]	
			KOF2 (t-1)	-0.93***	[0.29]	Information flows (t-1)	-0.98**	[0.21]	
				0.01***	[0.00]		0.01***	[0.00]	
						Cultural proximity (t-1)	0.15*	[0.09]	
							-0.00**	[0.00]	
Excluding Latin American countries (23 countries)	-1.35***	[0.49]	KOF1 (t-1)	-0.85***	[0.28]	Information flows (t-1)	-0.92***	[0.22]	
	0.01***	[0.00]		0.01***	[0.00]		0.01***	[0.00]	
			KOF2 (t-1)	-0.96***	[0.29]				
				0.01***	[0.00]				
Excluding East Asian countries (11 countries)	-0.85*	[0.43]	KOF1 (t-1)	-0.76***	[0.27]	Restrictions (t-1)	-0.50*	[0.26]	
	0.01***	[0.00]		0.01***	[0.00]		0.00**	[0.00]	
			KOF2 (t-1)	-0.36*	[0.21]	Information flows (t-1)	-0.85***	[0.20]	
				0.01***	[0.00]		0.01***	[0.00]	
						Cultural proximity (t-1)	0.24***	[0.09]	
							-0.00**	[0.00]	

Robust standard errors in brackets.

*, **, and *** denote statistical significance at the 10 %, 5%, and 1% levels, respectively.

TABLE A5. The long-run relationship between globalisation and poverty – Sensitivity analysis19

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
ΔKOF	-0.329*	-0.623**	-0.332*	-0.303														
	[0.170]	[0.243]	[0.194]	[0.211]														
ΔKOF1					-0.177***	-0.266***	-0.151	-0.106										
					[0.042]	[0.053]	[0.119]	[0.124]										
ΔKOF2									-0.391***	-0.504***	-0.470**							
									[0.134]	[0.155]	[0.163]							
ΔFlows												-0.060	-0.059	-0.034	-0.007			
												[0.081]	[0.135]	[0.092]	[0.089]			
ΔRestrictions												-0.144	-0.129	-0.120	-0.113			
												[0.103]	[0.234]	[0.100]	[0.104]			
ΔPersonal contact																-0.004	-0.059	-0.049
																[0.258]	[0.263]	[0.277]
ΔInformation flows																-0.301**	-0.320**	-0.311**
																[0.115]	[0.122]	[0.138]
ΔCultural proximity																-0.021	-0.040	-0.024
																[0.052]	[0.052]	[0.052]
Initial poverty	-0.199***	-0.309***	-0.400***	-0.447***	-0.063***	-0.087***	-0.391***	-0.441***	-0.236***	-0.411***	-0.449**	-0.154***	-0.212***	-0.396***	-0.436***	-0.184***	-0.359***	-0.403***
	[0.043]	[0.056]	[0.072]	[0.086]	[0.016]	[0.026]	[0.074]	[0.085]	[0.046]	[0.066]	[0.083]	[0.054]	[0.070]	[0.089]	[0.098]	[0.057]	[0.078]	[0.099]
Economic growth	-0.052***	-0.090**	-0.051**	-0.054**	-0.215**	-0.279**	-0.060***	-0.061***	-0.050**	-0.044*	-0.047*	-0.057***	-0.068***	-0.046**	-0.039*	-0.049**	-0.044*	-0.048*
	[0.018]	[0.036]	[0.022]	[0.024]	[0.103]	[0.134]	[0.020]	[0.023]	[0.019]	[0.022]	[0.025]	[0.016]	[0.022]	[0.019]	[0.023]	[0.0189]	[0.022]	[0.026]
Sub-Saharan Africa			10.96**	13.04**			12.19**	14.78**		8.227*	10.29*			14.27**	17.04**		9.085	11.58
			[5.042]	[6.285]			[4.988]	[5.802]		[4.491]	[5.642]			[6.016]	[6.500]		[5.538]	[7.079]
South Asia				6.508				6.946			5.366				6.178			5.230
				[6.080]				[5.771]			[6.084]				[6.094]			[6.777]
Latin America				-1.683				-0.960			-1.060				0.512			-1.121
				[2.218]				[2.134]			[1.999]				[1.990]			[2.266]
East Asia				-0.358				-0.324			-0.0121				-2.839			-0.315
				[3.464]				[3.592]			[3.527]				[2.899]			[3.308]
Constant	8.157***	15.49***	9.618***	10.08**	6.455***	9.579***	6.797***	6.628**	9.630***	12.51***	12.58***	5.557**	6.175	5.975**	5.210*	9.858***	12.01***	12.05**
	[2.830]	[4.551]	[3.450]	[4.125]	[1.919]	[2.569]	[2.481]	[2.700]	[2.457]	[2.965]	[3.229]	[2.139]	[4.200]	[2.652]	[2.894]	[3.109]	[3.763]	[4.531]
Observations	65	67	70	70	65	68	70	70	66	71	71	55	45	59	59	55	59	59
R-squared	0.278	0.399	0.469	0.490	0.280	0.376	0.461	0.480	0.344	0.532	0.544	0.242	0.262	0.455	0.476	0.316	0.491	0.505

Robust standard errors in brackets.

*, **, and *** denote statistical significance at the 10 %, 5%, and 1% levels, respectively.