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## Joint Master in Global Economic Governance and Public Affairs

*The Relationship between Income Inequality and Political Instability: A Panel Data Analysis of Latin America*

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## Statutory Declaration

*I hereby declare that I have composed the present thesis autonomously and without use of any other than the cited sources or means. I have indicated parts that were taken out of published or unpublished work correctly and in a verifiable manner through a quotation. I further assure that I have not presented this thesis to any other institute or university for evaluation and that it has not been published before.*

06.07.2023,

Laura Mazzoni

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## Abstract

This thesis takes an in-depth look at the complex relationship between income inequality and political instability in Latin America, a region known for its significant economic inequalities and notable political fragility. Based on an extensive literature review, a quantitative empirical analysis, and a critical assessment, the study investigates whether income inequality has a significant impact on political instability. The research methodology involves panel data analysis for the period from 2002 to 2021, using political instability as the dependent variable and income inequality as the independent variable. Additionally, a variety of control variables, including economic, governance, and sociodemographic indicators, were integrated to enhance the breadth of the analysis. The empirical results show a significant positive correlation between income inequality and political instability. However, the study recognises the significant influence of other factors, such as the nature and quality of governance, and emphasises the need for a holistic approach to address the challenges of political instability in Latin America. Despite certain limitations, this research makes an important contribution to the ongoing global discourse on income inequality and political instability and supports the development of strong, resilient, and participatory governance systems as a solution to these interrelated challenges.

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# 1. Introduction

"An imbalance between rich and poor is the oldest and most fatal ailment of all republics" warned the Greek philosopher Plutarch over two thousand years ago (Marmot, 2006). Today, these words are more relevant than ever and serve as a powerful reminder of a persistent global problem: growing income inequality (Qureshi, 2023). Despite the progress made in improving living standards in many countries, the benefits have not been equitably distributed, leading to a growing gap between the rich and the poor within nations. This widening gap has far-reaching implications and poses major challenges for countries around the globe. Income inequality, after declining in the first half of the twentieth century, began to rise again in the mid-1980s. Currently, the richest 10% of the world's population account for 52% of global income, while the poorest half earns merely 8.5% (Chancel et al., 2021). This alarming trend of increasing income inequality has attracted the attention of academics, policymakers, and the public because of its potential economic and social consequences (Čihák et al., 2020).

However, this upward trend in income inequality is not the only phenomenon to be observed. At the same time, many countries are experiencing growing political instability (Institute for Economics & Peace, 2022). The Russian invasion of Ukraine, anti-government protests in Peru, unrest in Brazil, military attacks on civilians in Myanmar, and fierce fighting in Sudan - the world seems to be in a constant state of shock, with millions of people suffering (Espach, 2023; Ireland, 2023). By the end of 2022, around 108 million people worldwide had been displaced from their homes due to conflict, violence, or persecution. This alarming number is the highest recorded figure to date (Ireland, 2023).

Although these are distinct phenomena, there is a complex relationship between rising income inequality and political instability. The growing income gap not only leads to economic inequalities but also to social and political tensions that can lead to political instability (Qureshi, 2023). Moreover, instability can in turn disrupt economic activity, undermine prospects for inclusive growth and development, and thus potentially exacerbate income inequality (Alesina et al., 1996). To better understand this broad dynamic, this paper focuses on Latin America, a region characterised by both extreme income inequality and political instability.

Latin America is a vast and culturally diverse region spanning 20 sovereign states and various territories, including Mexico, Central America, the Caribbean islands, and South America (World Population Review, 2023). With a population of around 670 million people, the region is known for its cultural and ethnic diversity as well as its exceptional natural landscapes, such as the Amazon rainforest and the Atacama Desert (Boudreau et al., 2022; Worldometers, 2023). However, in addition to its cultural and ecological richness, Latin America also faces major socio-economic challenges. Although there was a decline in income inequality during the early 2000s, this encouraging trend slowed in the 2010s, and some countries reported a rebound in income inequality even before the outbreak of the pandemic (UNDP, 2021). The COVID-19 pandemic proved particularly devastating for Latin America, resulting in death rates above the global average, significant strains on health systems, and a remarkable economic decline. By 2020 alone, the region was threatened with the loss of around 22 million jobs, reversing a decade of progress in poverty reduction and aggravating already wide income disparities. The situation was further exacerbated by Russia's war against Ukraine, resulting in rising prices for fossil fuels, agricultural resources, and food. In the face of these growing challenges, a region already struggling with widespread social exclusion, insecurity and a vulnerable middle class at constant risk of sliding into poverty has been further burdened by a health and inflation crisis (European Economic and Social Committee, 2022). As a result, high levels of inequality persist, making Latin America one of the most unequal regions in the world, along with sub-Saharan Africa. This is underlined by the fact that 55% of national income is in the hands of the top 10% of the population, which significantly limits the economic opportunities of the less well-off sections of society (Chancel et al., 2021). With various financial crises and political upheavals, the Latin American region has also been marked by political instability for decades. Persistent problems such as inflation, uncontrolled public spending, unpredictable monetary policy, and external shocks, especially the COVID-19 pandemic, have left a lasting mark on the region's political landscape. These factors have led to a shift in governance, swinging back and forth between right-wing and left-wing political ideologies, with successive governments often focusing on undoing the policies of their predecessors (de Bolle, 2022). This cycle has led to deep social divisions, political polarisation, widespread discontent, and low voter turnout. At the end of 2019, Latin America was thus at the epicentre of social unrest. Demonstrations and

demands for change have exposed the vast socio-economic inequalities in the region. A rise in populist sentiment, opposition to globalisation, and widespread discontent have intensified the unrest. This volatile environment is exacerbated by ongoing political violence, which manifests itself in violent protests, state brutality, and repression (UNDP, 2021). In parallel, the ongoing political and economic instability, combined with the prevailing corruption and lack of opportunities, has triggered the largest migration crisis in Latin America's history. In addition to the usual migration flows from Central America and Mexico to the United States, there have been significant migration flows from Venezuela and Haiti in recent years as citizens seek better living conditions. The situation is further complicated by the increasing impact of climate change, which is leading to a higher frequency of natural disasters such as hurricanes, floods, and droughts. Projections suggest that up to 17 million people could be displaced from their homes by 2030, and nearly 5.8 million people could fall into extreme poverty (World Bank, 2023d).

A region characterised by high inequality, poor economic performance, and weak political institutions lends itself particularly well to studying the relationship between income inequality and political instability (Sánchez-Ancochea, 2021). Examining this relationship in the Latin American context is important in several ways. First, it offers insights into the ways in which persistent income inequality and political instability can undermine the legitimacy of governments, erode trust in institutions, and present obstacles to addressing social and economic challenges. Second, the study on Latin America could provide lessons for other regions facing similar problems.

Despite the growing interest and literature examining the relationship between income inequality and political instability, there remains a significant gap in the evidence (Korotayev et al., 2017). While there are a large number of studies analysing the relationship between income inequality and economic growth, there are few researchers who have exclusively examined the relationship between income inequality and political instability. However, those who have looked at this relationship have not yet reached a consistent conclusion (Agnello et al., 2017). In particular, the unique dynamics and causal mechanisms linking income inequality and political instability in the Latin American context remain to be thoroughly investigated. As a contribution to research, this thesis therefore aims to bring clarity to the contradictory research findings by conducting its own analysis based on recent data and focusing exclusively on the Latin American region.

The research question that this study seeks to answer is therefore: "What is the relationship between income inequality and political instability, and does income inequality have a significant impact on political instability in Latin America?"

To effectively answer the research question, a structured approach is adopted in this thesis. After the introduction, Chapter 2 discusses the theoretical background. For this purpose, a conceptual framework is first established in which the terms income inequality and political instability are precisely defined. Then, a comprehensive review of the relevant literature follows. The focus will be on clarifying the causal mechanisms that are assumed to link income inequality and political instability, drawing on existing theories and empirical evidence. This review will provide an overview of the current state of knowledge and identify gaps that will be addressed in this study. Chapter 3 describes the methodology, outlining the research design and data collection process. This includes a comprehensive explanation of the dependent, independent, and control variables. The methods used for data analysis are also described in more detail. The methodology aims to provide a robust framework that not only allows for a comprehensive understanding of the research subject but also helps to derive meaningful conclusions. Chapter 4 presents the findings from the data analysis. It begins with a preliminary examination of the data and then shifts the focus to the analysis of the relationship between income inequality and political instability under study. The chapter concludes by pointing out the limitations of the study to ensure a balanced interpretation of the findings. The final chapter 5 summarises the main findings of the study, reflects on the insights gained, and suggests possible areas for future research and improvement.

## 2. Theoretical Background

This chapter will analyse the empirical relationship between income inequality and political instability. To facilitate a common understanding, Chapter 2.1 first defines the terms income inequality and political instability. This clarification is important to create a common basis for further analysis. Chapter 2.2 then examines in depth the theories and empirical findings on the link between income inequality and political instability. This literature review not only consolidates existing knowledge but also enhances the understanding of the complex relationship between these two phenomena.

### 2.1 Conceptualising Income Inequality and Political Instability

*Income inequality*

In order to properly define income inequality, an understanding of the concept of income must first be created. Income is often mistakenly equated with wealth. However, income and wealth are different concepts that need to be distinguished. Wealth is a stock measure that embodies the totality of the assets or goods of a person or household. In contrast, income, a flow measure, represents the current financial income that individuals or households earn from their activities, dividends, or interest payments (Schaeffer, 2021). When analysing income inequality, it is important to consider several influencing factors (OECD, 2011). Figure 1 provides a visual representation of these factors and illustrates how the concept of income inequality is constructed.
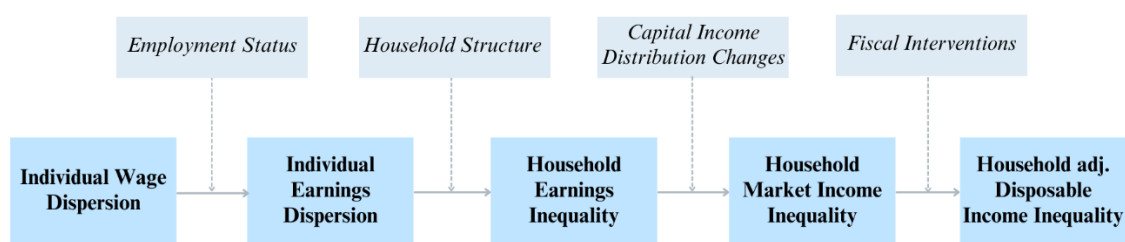


*Figure 1: Pathways to Income Inequality (own depiction based on OECD, 2011)*

The process for understanding income inequality encompasses numerous steps, each illuminating a specific aspect of income distribution. First, the discourse on income inequality considers the heterogeneity of the distribution of wages between individuals. This dispersion is decisively influenced by employment and unemployment status, with different working hours also having a significant impact on individual income, leading to

individual earnings dispersion. Individual earnings dispersion accounts not only for differences in wages but also for variations in the structure of households and the correlation between members' earnings and employment patterns. Households with two earners tend to have higher incomes than households with only one earner, which contributes to the income differences between households. Moreover, changes in societal norms regarding household structures or shifts in employment patterns among household members can contribute to altering the dispersion of earnings. These factors collectively result in household earnings inequality. In addition to earnings, households can generate income from various sources, including investments and savings. Variations in these income components contribute to disparities in household market income. Consequently, differences in savings rates, investment portfolios, and access to capital further shape the distribution of market income among households. Finally, the progression from household market income inequality to household adjusted disposable income inequality considers the impact of household taxes, cash transfers, and in-kind benefits from public services. Taxes and transfers implemented by the government influence the distribution of income within households. Progressive tax systems, for example, may reduce income disparities by taxing higher-income households at a higher rate. Similarly, cash transfers, such as those from social assistance or welfare programmes, aim to provide financial support to low-income households. In-kind benefits, such as subsidised housing or healthcare, also contribute to household income redistribution. Accounting for these adjustments, household adjusted disposable income inequality represents the final phase in understanding income inequality, as it reflects the overall economic well-being of households after accounting for taxes, transfers, and in-kind benefits. This comprehensive measure allows for a clearer picture of income inequality adjusted for household composition (OECD, 2011). Consequently, income inequality is defined as the extent to which household-adjusted income is unequally distributed within a population (OECD, 2023). Although income inequality between countries is of considerable importance at the global level, this thesis will focus exclusively on income inequality at the national level.

*Political instability*

Political instability is a term that encompasses a wide range of phenomena, making it difficult to find a clear definition that is valid in all contexts. Different researchers consider the concept of political instability from different perspectives, resulting in a wide range of definitions and criteria. A widely used perspective on political instability focuses on changes in leadership or the system of government (Akongdit, 2013). Alesina et al. (1996), for example, define political instability as the likelihood of a change in government, which can occur constitutionally or through a coup d'état. Similarly, Lipset (1960) characterises political instability as the absence of persistence or continuity within a specific political system. This perspective emphasises the importance of stability within the political structure itself and considers shifts in power or styles of government as signs of instability. The second version, on the other hand, attaches more importance to societal reactions and expressions of dissatisfaction (Akongdit, 2013). According to scholars like Siermann (1998), political instability can be understood in terms of the frequency of socio-political events that serve as public expressions of discontent, such as protests, strikes, or instances of political violence. Alesina and Perotti (1996) further suggest that a country can be considered politically unstable if there is a certain level of dissatisfaction with the government or regime among the population, which may be expressed in protests, strikes, coups, or other politically motivated actions.

These two perspectives underline the complexity of political instability, which is shaped by an interplay of internal factors within the political system and the corresponding reactions of society (Akongdit, 2013). To ensure a comprehensive understanding, this paper adopts a balanced approach to defining political instability, taking into account both the internal dynamics of political systems and the external manifestations of discontent within society. Therefore, political instability can be defined as the propensity of a government to collapse, characterised by various factors such as changes in leadership, challenges to the existing political system, widespread popular discontent, and expressions of dissatisfaction (Alesina et al., 1996; Alesina & Perotti, 1996).

## 2.2 Literature Review

The relationship between income inequality and political instability has received significant attention in recent research. However, conflicting findings have led to contrasting conclusions (Giskemo, 2012). Some studies suggest a positive correlation, indicating that higher income inequality is associated with increased political instability. Others propose a negative relationship, suggesting that higher income inequality may reduce political instability. Furthermore, a substantial body of research argues that income inequality and political instability do not have a significant impact on each other (Korotayev et al., 2017). Therefore, this chapter aims to delve into these perspectives and provide a comprehensive analysis of the relationship.

*Positive Correlation*

The debate on the connection between income inequality and political instability has a long historical tradition, with roots going back to the time of Aristotle around 350 BC. Aristotle held that the desire for equality could potentially lead to revolts. Despite this long-standing view, the hypothesis that an increase in income inequality leads to an increase in political instability has not been consistently proven (Linehan, 1980). Nevertheless, numerous scholars have found a positive correlation (Lichbach, 1989). This finding can be justified by considering the following factors: In a country with great income inequality, the poor, who possess very little, can resort to violence to demand redistribution and redress their grievances. On the other hand, the wealthier parts of society, who have more to lose, have the necessary means to use violence to resist demands for redistribution. Under these circumstances, the middle class, which usually respects property rights and avoids unrest, tends to be small, leading to a higher proportion of people willing to use violence. Consequently, when income inequality increases in a country, mass violence, politically motivated attacks, and illegal seizures of power also increase, leading to more political instability (MacCulloch, 2005). Economists and political scientists Acemoglu and Robinson (2001) support this view by arguing that societies with higher initial income inequality are more likely to experience transitions between democracy and non-democracy and less likely to achieve fully consolidated democracies. Therefore, democracy is more likely to consolidate when the level of inequality is limited, while high inequality is likely to lead to political instability, either in the form of frequent regime changes or the suppression of social unrest. This statement is also confirmed by the

research of Alesina and Perotti (1996), which includes an analysis of 72 countries in the period from 1960 to 1985. Their study shows that income inequality can exacerbate social discontent and thus increase socio-political instability. They assume that the presence of an affluent middle class favours political stability. However, a disproportionate representation of impoverished citizens compared to a tiny but exceedingly wealthy group can lead to discontent among the former, which in turn leads to demands for radical change and thus exacerbates political instability. Kelly (2000) bases this positive correlation on the economic theory of crime and strain theory. According to the economic theory of crime, regions characterised by high income inequality create an environment in which individuals with lower incomes and limited economic prospects are more likely to engage in criminal behaviour. This tendency is due to the potential for higher profits from criminal activity, especially in areas where the wealth gap is highly visible. As the gap between rich and poor widens, the perceived benefits of criminal behaviour may become more attractive to those with limited resources. Similarly, the strain theory suggests that individuals who experience financial difficulty or failure become frustrated and dissatisfied with their own situation when they observe that others around them are successful and enjoy a better quality of life. The more pronounced the income inequality and the differences between socio-economic groups, the greater the frustration of those who are less successful. This increased sense of frustration may, in turn, increase the likelihood that individuals will resort to criminal activity to potentially gain material advantages. Other studies also prove this positive correlation. Agnello et al. (2017) found a positive correlation in the OECD countries; Blanco and Grier (2009) in South America; Ncube et al. (2013) in the MENA region; and Barrows (1976) in Africa. In all these cases, national income inequality was associated with higher levels of political instability.

*Negative Correlation*

Other researchers came to the opposite conclusion and found a negative correlation between income inequality and political instability. Moore (2016) justifies the theory by arguing that a high level of income inequality implies the presence of a strong elite in power with sufficient resources to prevent political resistance. This leads to violence being suppressed rather than exercised, which in turn permanently strengthens the elite's position and thus ensures a high degree of political stability (Korotayev et al., 2017). In addition, poorer people in very unequal societies do not have the necessary assets to

initiate an armed rebellion. In a study of countries in crisis in the Middle East, Elkanj and Gangopadhyay (2014) also came to the research conclusion that an increase in income inequality by one unit would reduce the probability of war by 8.8 percent and that of conflict by 7.6 percent.

*No Correlation*

Finally, some studies suggest that income inequality does not have a statistically significant impact on political instability and assume that the relationship may depend on various factors. Among these researchers is Philip Nel (2003), whose study analysed the impact of inequality on political instability in sub-Saharan African countries between 1986 and 1997. The analysis confirms that high levels of inequality do not have a statistically significant impact on political instability in the sample. Rather, low government spending on social services and the absence of separation of powers in African politics would influence real levels of political instability more than income inequality per se. Posner (1997) argues that average income in a society, rather than income distribution, is important in maintaining a country's political stability. He assumes a positive correlation between political stability and average income because citizens of wealthy countries have a vested interest in political stability and can afford to adopt "civilised" repressive measures that do not cause widespread resentment. He thus concludes that there is no correlation between political stability and income equality and highlights the importance of considering the overall economic well-being of the population rather than focusing solely on income inequality. Blotevogel et al. (2020) found a short-term positive relationship between inequality and political stability in emerging and developing countries. However, when fragile countries were excluded from the analysis, the significant relationship between inequality and political stability disappeared. This result highlights the possibility of non-linearities in the relationship between inequality and political stability.

The complexity and variability of findings in the existing literature underscore the necessity for further analysis and examination of the relationship between income inequality and political instability in this thesis. By incorporating recent data and ensuring consistency in the variables used, this study aims to provide a comprehensive and up-to-date understanding of the nuanced nature of this multifaceted relationship.

# 3. Methodology

This chapter provides a detailed description of the approach adopted in the thesis. It covers the research design and the process of data collection, including a detailed explanation of the dependent, independent, and control variables, as well as the data analysis. The methodology is specifically designed to enable an in-depth study of the relationship between income inequality and political instability in Latin America. It provides a solid framework for thoroughly answering the research question of whether income inequality has a significant impact on political instability in Latin America.

## 3.1 Research Design

This study adopts a quantitative research approach and employs panel data analysis using the statistical software R. Panel data analysis is a powerful tool as it combines two types of data: cross-sectional and time-series. While a cross-sectional analysis comprises a set of observations on different variables at a specific point in time, a time-series analysis tracks the development of a single variable over a period of time (Wooldridge, 2002). In this study, the focus is not limited to a single variable, nor is it confined to a specific snapshot in time. Instead, it examines several variables over multiple years across a selection of Latin American countries. Therefore, panel data analysis holds a clear advantage over relying solely on cross-sectional or time-series analyses.

The study encompasses a time frame stretching from 2002 to 2021. The year 2002 was chosen as a starting point because it was the first year in which continuous data on political instability became available. Prior to that, data was only available every two years (Kaufmann & Kraay, 2022). The study concludes with the year 2021, as this is the last year for which data is available for both political instability and income inequality.

While the term "Latin America" is not officially defined and can sometimes include different sets of countries, it generally refers to 20 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela (World Population Review, 2023). However, due to data limitations, this study considers only 14 of these countries, namely Argentina, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Panama, Paraguay, Peru, and Uruguay.

## 3.2 Data Collection

In the following chapter, the dependent and independent variables, as well as the various control variables, are examined in detail. This includes a comprehensive explanation of how these variables are measured and a reference to the respective data sources. Independent variables are those that are expected to cause or influence changes in the dependent variables. In contrast, a dependent variable is the outcome or response that changes as a result of the independent variables (National Library of Medicine, 2023). Control variables are included to improve the accuracy and reliability of the study. They are used to increase precision, improve the generalisability of results and model specifications, and avoid bias due to omitted variables. Therefore, by taking into account factors that might affect the dependent variable, more reliable and accurate results can be ensured (Spector, 2021). Since the aim of the analysis is to explore whether income inequality has a significant impact on political instability in Latin America, political instability is referred to as the dependent variable, while income inequality is the independent variable. Control variables include economic indicators such as GDP per capita and inflation, indicators of governance efficiency such as voice and accountability and government effectiveness, and sociodemographic variables such as youth unemployment, education, urban population, and ethnic fractionalisation.

### 3.2.1 Dependent Variable

In addition to the variety of definitions of political instability, there is at least as much confusion about how to measure it (Akongdit, 2013). Since political instability in a country cannot be measured directly, empirical studies often rely on indicators such as the number of coups or assassinations, the occurrence of violent revolutions, and military coups (Dutt & Mitra, 2008). However, this could lead to misclassification, as non-violent but unconstitutional changes of government could be wrongly interpreted as signs of political stability (Akongdit, 2013). In contrast, Aisen and Veiga (2013) use the number of major government crises and the number of cabinet changes as proxies for political instability. However, this can also lead to biased estimates, as a country with political turmoil and mass unrest could be classified as politically stable if no change of government has taken place. Uganda would thus be politically stable according to this definition, despite decades of political unrest, since President Museveni has ruled the country for 35 years (Dutt & Mitra, 2008). Some authors acknowledge the problem of measurement

inaccuracy and combine different indicators into a single index (Akongdit, 2013). For instance, Alesina and Perotti (1996) extended Barro's approach and formed the socio-political instability (SPI) index, which contains the weighted average of variables over the period from 1960 to 1982. These include the number of politically motivated assaults, the number of people killed by mass domestic violence, the number of coups d'état, and an index of the degree of democracy in a country (Alesina & Perotti, 1996). However, this method also has its drawbacks, as it could classify autocratic states as inherently more unstable due to their lack of democracy. Moreover, the SPI index is not suitable for this analysis due to the time limitation of the data.

Another approach used in previous studies to measure political instability is the indicator "political stability and the absence of violence/terrorism" from the World Bank's World-wide Governance Indicators (WGI) (Karnane & Quinn, 2019; Topuz, 2022). This index measures the probability that the government will be destabilised or overthrown by un-constitutional or violent means, including politically motivated violence and terrorism (World Bank, 2021). To enable a comprehensive measurement, individual variables from multiple data sources are incorporated. For instance, the Economist Intelligence Unit con-tributes indicators such as orderly power transitions, armed conflicts, violent demonstra-tions, social unrest, international tensions, and terrorist threats. The Human Rights Meas-urement Initiative provides the Political Terror Scale to measure political violence. The Institutional Profiles Database sheds light on the intensity of internal conflicts, including those by underground political organisations. The Political Risk Services International Country Risk Guide evaluates government stability, internal and external conflicts, and ethnic tensions. Global Insight Business Conditions and Risk Indicators supplement the index by analysing risks from protests, riots, and terrorism and the impact of these on property and society. Furthermore, the index evaluates the scope of interstate conflicts, from precision strikes to full-scale wars, and rigorously assesses civil wars. The combined data from these sources enables the index to provide a comprehensive overview of a coun-try's political stability and propensity to violence (World Bank, 2021). This extensive data set makes the political stability and the absence of violence/terrorism index a valuable tool for a wide range of countries over a long period of time until 2021 and therefore increases data availability for comprehensive analyses. Moreover, unlike other measures, it considers the possibility that democracies can be politically unstable due to

domestically motivated violence. As a result, this indicator is also used in the following analysis as a measure of political instability. Its scale, which ranges from $-2.5$ (low political stability) to 2.5 (high stability), further increases its usefulness for comparative studies (Kaufmann & Kraay, 2022). For the purposes of this analysis, the index was inverted by multiplying it by -1. This adjustment results in a political instability measure that ranges from -2.5, signifying very low instability, to 2.5, indicating very high political instability. This inversion harmonises the scale with the intuitive interpretation that higher values correspond to higher instability, which is invaluable in analytical contexts.

### 3.2.2 Independent Variable

Income inequality is a complex issue that can be measured using various statistical methods. Three of these methods are the coefficient of variation (CV), decile ratios, and the Gini coefficient. The CV is a statistical measure calculated by dividing the standard deviation of the income distribution by its mean. A more even income distribution is characterised by a smaller standard deviation, resulting in a smaller CV and indicating lower income inequality. Despite its simplicity, however, the use of CV in the discourse on the income inequality hypothesis is relatively rare. This may be due to two main limitations. First, there is no upper limit to the CV, which makes it difficult to interpret and compare results. Second, the components of the CV, namely the mean and the standard deviation, are subject to considerable influence from extremely low or high income values. This sensitivity means that the CV does not provide an accurate measure of income inequality if the income data deviate significantly from a normal distribution (De Maio, 2007).

Another method of quantifying income inequality is the decile dispersion ratio. For example, the income of the top 10% of households is divided by the income of the poorest 10% of households. This ratio expresses the income of the top quantile as a multiple of the income of the poorest quantile (De Maio, 2007). However, this method often leads to a loss of information, as it ignores information about the incomes in the middle of the income distribution and does not use information about the income distribution within the top and bottom deciles or percentiles (Haughton & Khandker, 2009).

The most widely used method is the Gini coefficient. It "measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution" (World Bank, 2023a). This inequality is visually

represented by the Lorenz curve, as depicted in Figure 2. In this graph, the horizontal axis (x-axis) depicts the cumulative percentage of households or individuals, starting from the least affluent. The vertical axis (y-axis) shows the cumulative percentage of total income received by the respective percentage of households or individuals. The Gini coefficient is then calculated as the ratio of the area between the Lorenz curve and a hypothetical line of absolute equality, representing uniform income distribution, to the total area under the equality line. The resulting value ranges from 0 to 100. A Gini coefficient of 0 signals perfect income equality, while a coefficient of 100 suggests extreme income inequality, where one entity holds all the income (Groves-Kirkby et al., 2009).
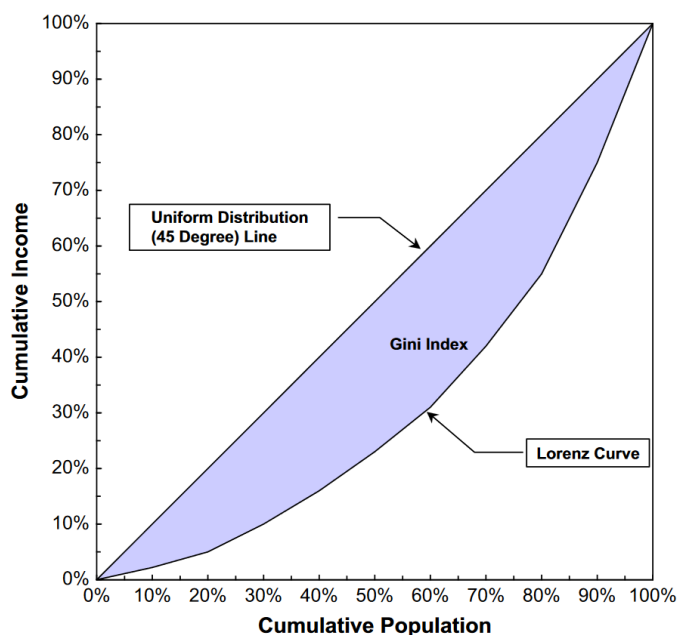


*Figure 2: Gini Index (Groves-Kirkby et al., 2009)*

While the Gini coefficient is popular, it has drawbacks such as not distinguishing between different income distributions and measuring relative rather than absolute income distributions. This might show rising inequality even if absolute poverty is decreasing (World Bank, 2023a). However, this study uses the Gini coefficient due to its widespread acceptance and availability in many countries over long time frames. The data for the Gini coefficient is obtained from the World Bank's Poverty and Inequality Platform and is based on household surveys conducted by government statistical offices and the World Bank. For high-income countries, data mainly comes from the Luxembourg Income Study database (World Bank, 2023a).

### 3.2.3 Control Variables

*Economic Indicators:*

There is a large body of literature dealing with the consequences of political instability on economic growth. However, it is equally important to examine the impact that the economy can have on a country's political stability. Negative economic performance, for example, can destabilise the government and trigger political unrest (Alesina et al., 1996). Many economically disadvantaged countries fall into what the economist Paul Collier has defined as the "conflict trap." This refers to a cycle where conflict damages the economy, and a weak economy makes further conflict more likely. Successful development reduces conflict risks, while failure in development increases them. Furthermore, Collier emphasises that economic development is indispensable, as good governance, social homogeneity, and high military spending alone are not sufficient to protect against violence (Collier et al., 2003). A particularly illustrative example of this dynamic is the unfolding situation in Venezuela. The country's escalating political instability stems from economic problems, including hyperinflation and shortages of essential goods. These hardships have led to protests that further destabilise the government and worsen the economy (BBC, 2021). Similarly, Paldam (1998) argues that a high standard of living, stable labour markets, and an educated population, resulting from economic growth, contribute significantly to political stability. This is evident in economically prosperous countries such as Norway and Switzerland, which have a high degree of political stability (Kaufmann & Kraay, 2022). The interaction between economic conditions and political stability is complex and requires a robust and widely accepted measure of economic performance. To this end, Gross Domestic Product (GDP) per capita at purchasing power parity (PPP) (constant international $ 2017) from the World Bank's World Development Indicators is used as a control variable in this analysis. GDP per capita is a key economic indicator that reflects the overall economic health of a nation (World Bank, 2023c). It measures the total output of a country, which is the value of all goods and services produced in a given period divided by the total population. Although GDP does not reflect a country's overall standard of living or prosperity, it is invaluable for comparing economic conditions in different countries, especially as GDP per capita is adjusted for population size (Callen, 2023).

Inflation is another major economic indicator that can influence political stability or instability. Inflation denotes the rate at which there is an upward movement in the general price levels of goods and services, leading to an erosion of purchasing power. This erosion implies that each unit of currency, such as a dollar, has diminished capacity to acquire goods and services (Hicks & Curry, 2023). While GDP per capita measures the average economic output per person, it does not account for the actual purchasing power of individuals or households within the economy. Essentially, even if per capita output increases, the real affordability of goods and services for individuals may decline if prices rise faster due to high inflation. Therefore, evaluating inflation separately from GDP is crucial for a comprehensive assessment of the economic state of a country and its potential impact on political stability (Callen, 2023). Furthermore, concern over inflation has been growing in Latin America, where inflation has been rising at the fastest rate in more than two decades. This increase is attributed to the impacts of COVID-19 and Russia's invasion of Ukraine (Adler et al., 2023). By the end of 2021, inflation in the region had already doubled, reaching 6.6%, a rate parallel to the 2008 financial crisis (Hammad, 2022). The significance of the inflation rate is highlighted by its direct impact on daily life, as it affects the prices of goods and services. When inflation rises, the value of the currency falls, reducing purchasing power and promoting economic uncertainty. This uncertainty can slow economic activity, increase unemployment, hinder growth, and increase political instability (Hicks & Curry, 2023). A current example is Argentina, where people are protesting against the government's economic policies in the face of rising prices. This social unrest shows how high inflation rates can have a destabilising effect on the political climate (Liotti, 2022). To incorporate inflation as a potential cause of political instability, it is also included in the analysis as a control variable through the average Consumer Price Index (CPI). The CPI is a statistical tool that gauges the average levels of prices in a country by assessing the cost of a typical basket of consumer goods and services over a certain period. The rate of inflation is the percentage change in the average CPI, with data sourced from the International Monetary Fund (IMF, 2023).

*Governance Indicators:*

Political instability is often rooted in the failure of government to meet public expectations, as noted by Johnson (1964). This failure leads to discontent, which can manifest itself in support for extreme political change, violence, or apathy towards the ruling

authority. Addressing inadequate governance is essential, as it presents a substantial risk of political turmoil. Therefore, the government's structure is integral in this respect, with two elements being especially impactful: the nature of the government and the quality of its institutions (Lichbach, 1989). As demonstrated by researchers such as Ellingsen (2000), democratic governments are generally more stable, primarily because they foster citizen participation in the political process through mechanisms such as voting and peaceful demonstrations. This inclusiveness helps to address grievances and avoid violent conflict. Moreover, democracies often emphasise the equitable distribution of resources, which reduces feelings of deprivation and contributes to stability (Blanco & Grier, 2009). On the other hand, non-democratic regimes have a higher risk of being overthrown by radicals, indicating greater political instability (Alesina & Perotti, 1996). The second aspect that has a significant impact on political instability relates to the quality of a country's institutions. As explained by Malikov and Alimov (2022), institutions that are able to make impartial decisions, taking into account the interests of the entire social spectrum, are an essential factor for political stability. Conversely, institutions that are marred by corruption or unduly influenced by certain segments, such as the wealthy elite, can lead to political turmoil. Furthermore, the establishment of inclusive decision-making processes within institutions has been shown to be associated with improved governance and a reduced propensity for conflict (O'Neil & Sheely, 2019). Therefore, both factors are also included in this analysis.

To quantify the character of governance, this analysis employs the "voice and accountability" indicator, which is a component of the World Bank's WGI. This metric assesses the degree to which a country's citizens can participate in selecting their government, as well as the freedoms of expression, association, and assembly. The indicator encompasses diverse aspects of democratic governance, including the protection of vested rights, accountability of public officials, human rights, freedom of the press, and government budget reliability. A society with a score near 2.5 on this indicator is likely to enjoy robust political participation, freedom of expression, and a dynamic media landscape. Thus, high levels of voice and accountability correlate with a stable political environment where citizens can voice concerns peacefully and governments effectively respond, curbing political instability. Conversely, a society that scores -2.5 is likely to face severe restrictions on political participation and freedom of expression (Kaufmann & Kraay, 2022).

The quality of institutions in this analysis is evaluated using the "government effectiveness" indicator, also from the WGI. This indicator captures perceptions of the quality of public services, the independence of the civil service from political pressures, the effectiveness of policy formulation and implementation, and the credibility of the government's commitment to these policies. It provides an estimate of the country's score on the aggregate indicator, which is presented in units of a standard normal distribution ranging from approximately -2.5 to 2.5. A higher score in the government effectiveness category signifies a government's effectiveness and reliability and implies that a government is efficient in its operations. By assessing the effectiveness of a government, valuable insights are gained into the overall efficiency and competence of a government's institutions, which can significantly impact political stability (Kaufmann & Kraay, 2022).

Both the voice and accountability and the government effectiveness indicators utilise a wide range of data sources. This includes the insights and views of respondents and experts from the public and private sectors, as well as input from various non-governmental organisations, creating a comprehensive index that considers multiple facets of governance and its quality (Kaufmann & Kraay, 2022).

*Sociodemographic Indicators:*

All the studies examined have in common that, in addition to economic and political indicators, they also included sociodemographic factors as control variables in their investigations. In an analysis by Azeng and Yogo (2013), the influence of youth unemployment on political instability was considered in more depth. The researchers postulated that a high youth unemployment rate leads to overall political instability in countries, thereby increasing the risk of armed conflict. Their findings confirmed this assumption and further showed that an excessively high youth unemployment rate, combined with socio-economic inequality and corruption, makes countries more vulnerable to political unrest and national security threats. Similarly, Urdal (2006) argues that in situations where young people are not offered alternatives to unemployment and poverty, they are more likely to join a rebellion to earn an alternative income. From this perspective, rebellion only makes sense if the potential gains are so high and the expected costs so low that the potential recruits give preference to rebellion over other income opportunities. The necessity to include youth unemployment in such analyses has been further highlighted by the impact of the COVID-19 pandemic on the employment landscape for young people

(Schady et al., 2023). In the first quarter of 2022, the employment rate for young people in Latin America stood at 41%, a figure almost 21 percentage points lower than the adult employment rate of 61.7%. The onset of the pandemic witnessed the most considerable proportional employment losses amongst young women and men, further emphasising the devastating impact of the crisis on youth employment (Maurizio, 2022). Therefore, data on youth unemployment, calculated as a percentage of the total labour force aged 15-24, is taken from the World Bank's World Development Indicators (World Bank, 2023b).

Against the backdrop of rising youth unemployment, the role of education in influencing political instability has gained significant importance. Research by Azeng and Yogo (2013) highlights that countries with higher levels of education are less prone to political violence. This can be attributed to the higher opportunity cost for unemployed individuals with low levels of education to participate in rebellions or uprisings compared to those with higher education. Expanding higher education is also seen as a strategy to mitigate the risk of political violence, as argued by Collier (2000). Educated individuals, due to better income prospects, have more to lose and are less likely to engage in rebellious activities. Brett and Specht (2004) support this view, finding that poverty, lack of education, and limited alternative income opportunities are significant factors driving individuals to join rebel groups. Choucri (1974) further emphasises the destabilising potential of high unemployment among educated youth. The importance of education goes beyond individual economic prospects and contributes to political stability. Schools socialise students and provide them with the knowledge, skills, attitudes, and values necessary for meaningful participation in the modern political system. They foster civic engagement and political participation, leading to more active citizenship and a government that is held accountable by its constituents. Furthermore, education promotes social cohesion by teaching respect for diversity, tolerance, and mutual understanding. It also facilitates social mobility by enabling people from all social classes to improve their social status. These factors work together to reduce social tensions and contribute to political stability. However, the role of education as a stabilising force is not without challenges. When education is aligned with particular interests, there is a risk that its credibility and perceived impartiality will be called into question. This in turn, can lead to disenchantment with its importance and create conditions that foster political instability (Meyer &

Rubinson, 1975). To further explore the impact of education on political instability, it is crucial to include education as a control variable in the analysis. In this context, education can be measured using the "mean years of schooling" index from the United Nations Development Programme's Human Development Index (UNDP, 2023).

Another social indicator analysed in this analysis is urbanisation, which describes the percentage of the total population living in urban areas (Central Intelligence Agency, 2023). Presently, Latin America stands out as one of the most urbanised regions in the world, with two-thirds of the population living in cities with a population over 20,000 (ECLAC, 2022). The significant level of urbanisation can potentially impact political stability in various ways. Following the theories of political scientists such as Alesina and Perotti (1996), it is argued that societies with high levels of urbanisation are more prone to political instability. This assertion is based on the idea that urban areas, due to their inherent density and diversity, often serve as breeding grounds for increasing social unrest. This is explained by the fact that a high rate of urbanisation makes it difficult for the government to provide basic services in densely populated cities, leading to discontent among the population (Auvinen, 1997). However, the relationship between urbanisation and political instability is not universally agreed upon. Contrasting perspectives are presented by Collier and Hoeffler (2004). They suggest that during periods of instability, urbanisation rates are low because highly urbanised countries typically possess a stronger military capability, enabling the government to maintain control and suppress instability more effectively (United Nations, 2020). Furthermore, rapid urbanisation increases the demand for essential services such as housing, utilities, education, and healthcare. If governments fail to meet these needs, it can lead to widespread discontent and possibly political unrest. Moreover, urbanisation can exacerbate socio-economic inequalities and further fuel political instability. Other factors, such as environmental challenges, intensified job competition, and poorly managed diversity, can also contribute to increased political volatility (Zurich, 2023). Therefore, urbanisation, its management, and its multifaceted impacts continue to play a significant role in shaping the political landscape of regions like Latin America. Consequently, the urban population as a percentage of the total population from the World Development Indicators of the World Bank will be included in this analysis.

A control variable that is included in almost every analysis is ethnic fractionalisation. This term is used to define the cultural, linguistic, or religious diversity found within a country (Jaiwant et al., 2022). Research carried out by scholars such as Annet (2000) and Ellingsen (2000) indicates that ethnic diversity can significantly influence levels of instability. They suggest that a high degree of ethnic fragmentation can lead to resource and power competition due to the diverging interests of various ethnic groups. This competition can disrupt national consensus-building, resulting in a shift in government focus towards patronage goods for specific ethnic factions. As a consequence, the distribution of essential public goods might be neglected, contributing to political instability. In addition, when ethnic groups feel marginalised, social tensions can escalate, leading to violent conflicts or civil wars, which can further destabilise the political environment. However, there is no consensus on the role of ethnic fractionalisation in political instability. For instance, Bleaney and Dimico (2017) argue that polarisation, with its attendant tensions, is more likely to lead to instability in societies than the mere presence of diversity. Collier and Hoeffler (2004) even find that diverse societies are safer than homogeneous ones if dominance is avoided, as diversity raises the costs of unifying diverse groups, making rebellions less likely. Lastly, Goldstone et al. (2010) argue that it is not ethnic diversity itself but economic discrimination against ethnic minorities that incites political instability. Blanco and Grier's study from 2009 concluded that while ethnic fractionalisation does influence instability, the relationship is non-linear. According to their findings, up to a fractionalisation level of 0.33, increasing ethnic fractionalisation correlates with decreasing instability. Beyond this point, however, further fractionalisation leads to greater instability. Given the high level of ethnic diversity in Latin America, characterised by a mix of indigenous populations, descendants of European colonisers, and Afro-Latin Americans, the inclusion of this variable in the analysis is particularly relevant. Nevertheless, quantifying ethnic diversity is a difficult task due to its complexity (Okediji, 2005). Many studies employ the ethnic fractionalisation index developed by Alesina et al. (2003), which combines racial and linguistic characteristics to account for heterogeneity. However, this index only covers the period from 1960 to 1995, rendering it unsuitable for this analysis. To address this shortcoming, this analysis employs the Historical Index of Ethnic Fractionalisation (HIEF) dataset. "The ethnic fractionalisation index corresponds to the probability that two randomly drawn individuals are not from the same ethnic group"

(Lenka, 2019). The index varies from 0 to 1, where 0 indicates complete homogeneity in ethnicity, meaning everyone belongs to the same ethnic group. Conversely, a score of 1 denotes maximal ethnic diversity, where every person is part of their own ethnic group. The dataset provides an annual index for 165 countries, spanning from 1945 to 2013. Consequently, the HIEF, which is derived from the Robert Schuman Centre for Advanced Studies at the European University Institute, facilitates the analysis of trends in ethnic diversity in different countries and over the years (Lenka, 2019). For the missing years from 2014 to 2021, the mean values from 2002 to 2013 for the respective countries were imputed as a constant. This decision is based on the observation that within-country data does not significantly vary over time, and therefore it does not distort the dataset.

*Overview*

Table 1 provides an overview of the control variables, divided into the areas of economy, governance, and socio-demographics. It includes a description of each variable and the corresponding index used to measure it, as well as the source of the respective indices.

*Table 1: Overview of the Control Variables*

| Control Variables | Variable Components | Index Name | Data Source |
| --- | --- | --- | --- |
| *Economic Indicators* | GDP | GDP per capita PPP (constant international $ 2017) | World Bank: World Development Indicators |
| | Inflation | Consumer Price Index (CPI) | International Monetary Fund |
| *Governance Indicators* | Nature of Government | Voice and Accountability | World Bank: Worldwide Governance Indicators |
| | Quality of Government | Government Effectiveness | World Bank: Worldwide Governance Indicators |
| *Socio-demographic Indicators* | Youth Unemployment | Youth unemployment (% of the total labour force aged 15-24) | World Bank: World Development Indicators |
| | Education | Mean Years of Schooling | Human Development Index from UNDP |
| | Urbanisation | Urban population (% of the total population) | World Bank: World Development Indicators |
| | Ethnic Fractionalisation | Historical Index of Ethnic Fractionalisation (HIEF) | Robert Schuman Centre for Advanced Studies |

## 3.3  Data Analysis Methods

The main objective of the data analysis in this paper is to conduct a robust panel data analysis on the impact of income inequality on political instability. This procedure forms the core of the analysis and serves to shed light on the complex relationships within the data set. First, the data is imported from an Excel file, which forms the starting point for the analysis process. After the import, a data pre-processing phase is carried out in which missing values for the dependent, independent, and control variables are eliminated. This data cleaning process ensures that only complete and accurate data are utilised in the analytical procedures, thereby establishing a reliable dataset for the subsequent analysis (Burns, 2021).

Once the dataset is cleaned, descriptive statistics are elaborated. Descriptive statistics serve as a basic step towards understanding the data set and thus contribute to the interpretation of the results. These include measures such as the mean and standard deviation, which provide a comprehensive understanding of the behaviour of the variables in the study. In addition, a frequency distribution analysis for the variable 'country' is conducted to quantify the number of data entries for each country in the dataset. This illustration is essential for understanding the distribution of data across different countries, providing insight into the representation and spread that are critical for comparative analysis. The data set is then visually examined using a scatter plot that shows the relationship between income inequality and political instability. This visual examination allows for a better understanding of potential trends and correlations between the key variables before the actual panel data analysis takes place (Shaker, 2023).

Having established a basic understanding of the data, the methodology moves to a more complex stage, namely the multicollinearity test. Multicollinearity, a high correlation between two or more variables in a model, can affect the reliability of the regression results. To counteract this, variance inflation factors (VIF) are calculated to ensure that the variables in the model are not overly correlated with each other, which could otherwise lead to redundant information. Essentially, the VIF quantifies how much the variance of an estimated regression coefficient is increased due to multicollinearity with other variables in the model. A VIF value of 1 implies no correlation between variables, signifying the absence of multicollinearity. Conversely, higher VIF values denote a higher correlation

and thus, greater multicollinearity. Conventionally, a VIF value exceeding 5 is typically viewed as a serious indication of multicollinearity (Bhandari, 2023).

Upon completing the multicollinearity test, the analysis proceeds with the Hausman test to determine the appropriate model for panel data analysis: the fixed effects model (FEM) or the random effects model (REM) (Princeton University Library, 2023). The FEM allows for controlling time-invariant unobserved differences among entities, which may be correlated with the observed independent and control variables. This is particularly useful when unobservable and time-invariant characteristics could potentially influence the variables included in the model. On the other hand, the REM treats unobserved individual-specific factors as random variations across entities, assuming that they are unrelated to the independent variables. The Hausman test formulates two hypotheses: the null hypothesis (H0) assumes that the unique errors, representing the discrepancies between observed and predicted values, are uncorrelated with the independent variables, favouring the REM. In contrast, the alternative hypothesis (H1) suggests that these unique errors are indeed correlated with the independent variables, favouring the FEM, which controls for unobserved time-invariant differences between entities. The result of the Hausman test is a probability value (p-value), indicating the likelihood of the null hypothesis being accurate. A low p-value (typically below 0.05) provides strong evidence against H0, indicating that the fixed effects model is more appropriate. Conversely, a higher p-value (above 0.05) suggests insufficient evidence against H0, favouring the random effects model (Torres-Reyna, 2007).

Having completed these preliminary steps, the methodology moves on to its main objective, the panel data analysis. A series of analyses are conducted, gradually incorporating different variables into the model (Salas-Velasco, 2023). This approach allows for a thorough investigation of whether income inequality has a significant impact on political instability in Latin America when control variables are included. Finally, after analysing the panel data, a comparison of the different regression models is carried out using the Stargazer package from R. This step provides a clear and concise summary of the models, facilitating interpretation and comparison.

# 4. Results and Limitations

Chapter 4 presents the results and limitations of the data analysis conducted in this thesis. It begins with a preliminary data examination, including descriptive statistics that provide a quantitative summary of the variables under investigation. The focus then shifts to the results of the multicollinearity analysis and the Hausman test, which help identify potential issues and determine the appropriate model for panel data analysis. In Chapter 4.2, the main results of the panel data analysis are presented and discussed in terms of possible significant effects. Additionally, any interesting or unexpected findings are highlighted to enhance the understanding of the relationship between income inequality and political instability. Finally, Chapter 4.3 discusses the limitations of the study, acknowledging any potential weaknesses or constraints that may have influenced the findings.

## 4.1 Preliminary Data Examination

The study examined panel data from 14 Latin American countries over a period of 20 years, from 2002 to 2021. After deleting the missing data, the number of observations was reduced from 280 to 254. The main reason for this reduction in observations was the lack of missing data for income inequality, specifically the Gini coefficient. Having defined the variables and established the analytical framework, the study computed a comprehensive set of descriptive statistics. Table 2 presents a detailed overview offering a summary for each variable, including the mean, standard deviation (SD), minimum (min), and maximum (max) values.

*Table 2: Descriptive Statistics Summary*

| Variable | Mean | SD | Min | Max |
|---|---|---|---|---|
| Political Instability | 0.23 | 0.61 | -1.07 | 2,38 |
| Income Inequality | 48.56 | 4.83 | 38.00 | 59.50 |
| GDP per capita | 13582.13 | 5949.23 | 4101.28 | 31543.61 |
| Inflation | 5.89 | 6.96 | -0.70 | 53.50 |
| Voice and Accountability | 0.23 | 0.44 | -0.57 | 1.31 |
| Government Effectiveness | -0.25 | 0.41 | -1.11 | 0.84 |
| Youth Unemployment | 14.50 | 7.34 | 3.37 | 41.08 |
| Urban Population | 72.68 | 11.77 | 46.61 | 95.60 |
| Education | 8.03 | 1.38 | 4.74 | 11.15 |
| Ethnic Fractionalisation | 0.42 | 0.19 | 0.13 | 0.64 |

Starting with political instability, the variable has a mean of 0.23 and a SD of 0.61, ranging from a minimum of -1.07 to a maximum of 2.38. Given the scale of -2.5 to 2.5, the data show significant variability, indicating diverse levels of political instability among the countries. For income inequality, the mean value of the Gini coefficient is 48.56, with a SD of 4.83. The coefficient ranges from 38.00 to 59.50, indicating moderate variability in income inequality across the countries. GDP per capita exhibits a wide spectrum, ranging from $4,101.28 to $31,543.61, with a mean of $13,582.13 and a SD of $5,949.23. This considerable range illustrates the significant economic differences in GDP per capita among the analysed countries. For the inflation rate, the data display a mean of 5.89%, a SD of 6.96%, and a range of -0.70% to 53.50%. The substantial standard deviation in relation to the mean suggests a high degree of variation, indicating that inflation rates vary widely among the countries analysed, with some experiencing deflation while others face extremely high inflation rates. For voice and accountability, the mean score is 0.23 and the SD is 0.44, ranging from -0.57 to 1.31, indicating moderate variation among the countries. Government effectiveness has a mean of -0.25 and a SD of 0.41, with values between -1.11 and 0.84, reflecting moderate diversity in the quality of governance across the analysed countries. However, the slightly negative mean score indicates some challenges on average in government performance across the countries. The youth unemployment rate has a mean of 14.50% and a SD of 7.34%, with values ranging from 3.37% to 41.08%. The relatively high SD compared to the mean indicates significant variability, presenting a wide disparity in youth unemployment rates. The urban population rate also shows substantial diversity, ranging from 46.61% to 95.60%, with a mean of 72.68% and a SD of 11.77%. This SD signifies a considerable variation in the percentage of urban populations, highlighting the differing degrees of urbanisation across the countries. Education levels show a noticeable variation across different countries but are generally centred around an average of approximately 8 years of schooling. The SD, standing at 1.38, signifies that a substantial number of countries have education levels near the average. Nonetheless, the range, which extends from about 4 years and 9 months to 11 years and 2 months, highlights the presence of outliers. Lastly, ethnic fractionalisation demonstrates a modest range of diversity among the countries in Latin America, with a SD of 0.19 and a mean of 0.42. The values span from 0.13 to 0.64, suggesting that there is diversity in the ethnic composition across these countries, though it is not extremely broad.

In terms of country distribution, Figure 3 shows the distribution of observations across the 14 Latin American countries in the dataset.
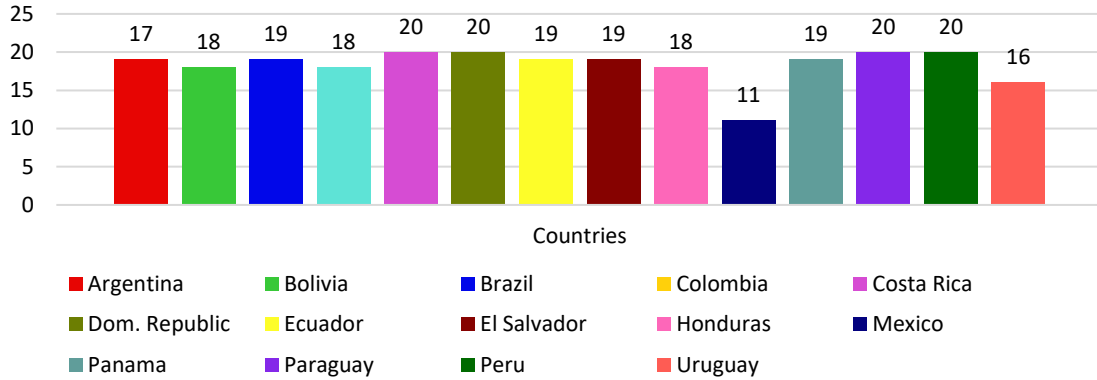


Argentina 17, Bolivia 18, Brazil 19, Colombia 18, Costa Rica 20, Dom. Republic 20, Ecuador 19, El Salvador 19, Honduras 18, Mexico 11, Panama 19, Paraguay 20, Peru 20, Uruguay 16

*Figure 3: Distribution of Observations*

The number of observations per country varies, ranging from 11 to 20. Costa Rica, the Dominican Republic, Paraguay, and Peru are at the higher end of the spectrum, with each having 20 observations. Meanwhile, Mexico stands out with the lowest count of 11 observations. The other countries, including Argentina, Bolivia, Brazil, Colombia, Ecuador, El Salvador, Honduras, and Uruguay, have a relatively even distribution, each containing between 16 and 19 observations. The variation in the number of observations reflects an unbalanced panel data structure, which is primarily attributed to missing data entries for the income inequality variable.

Subsequently, a detailed analysis of the data set was conducted using a scatter plot, with different colours representing different countries (see Figure 4). The scatter plot provides a visual examination of the relationship between income inequality and political instability and serves as an important tool for highlighting potential trends and correlations between these two variables. Prior to a more detailed examination of the specific patterns and strengths of this relationship in the subsequent panel data analysis, this figure provides key insights. As illustrated in the scatter plot, there is a noticeable trend where political instability is associated with increased levels of income inequality. In essence, countries with more pronounced income inequality appear to face greater political instability, while countries with a more balanced income distribution tend to experience less instability, indicating a positive relationship.
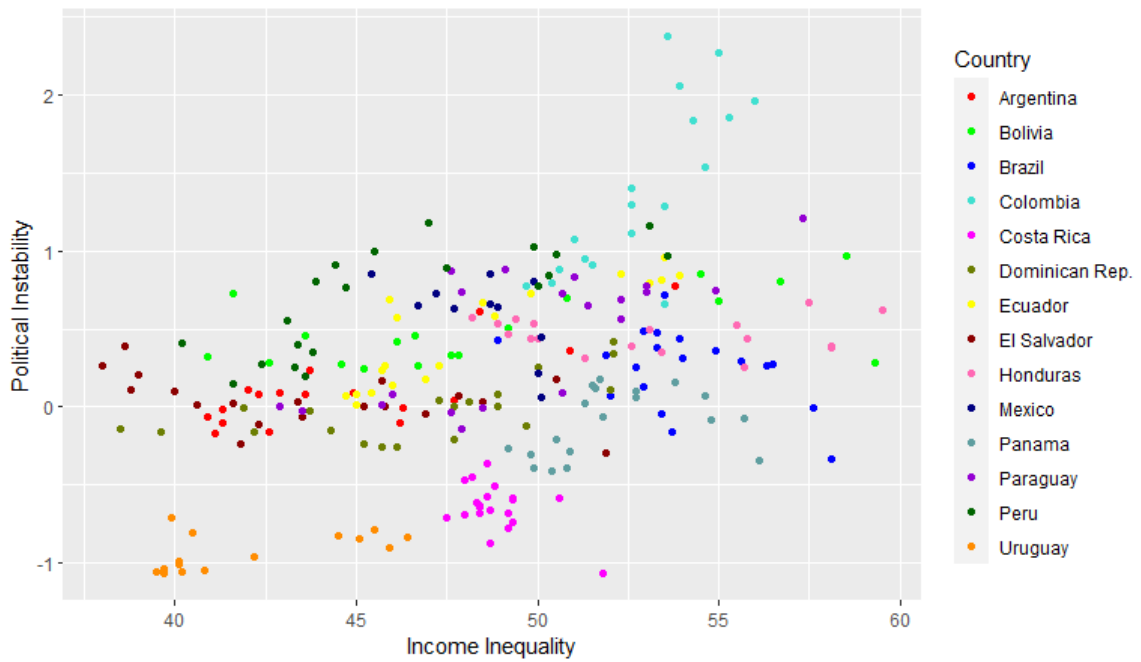
*Figure 4: Scatter Plot of Income Inequality and Political Instability*

Analysing the dataset, averages were calculated to better understand trends and describe the characteristics of countries in numerical terms. For instance, Uruguay shows low political instability with an average score of about -0.93. Additionally, the country's income inequality is comparatively moderate, with an average index of 41.9. In contrast, Colombia is at the other end of the spectrum, with high levels of political instability coupled with high levels of income inequality. Specifically, Colombia's average political instability score stands at 1.39, while the mean income inequality index is close to 52.9. Notwithstanding, there are countries like Brazil that do not conform to this pattern. Brazil has strikingly high income inequality, with an average index near 53. However, its political instability is rather moderate, with an average score of around 0.25. Similarly, Panama, although having a high average income inequality index of 52, experiences moderate political instability with an average score of about -0.1. In essence, while there are notable outliers such as Brazil and Panama, the scatter plot preliminarily indicates a positive correlation between income inequality and political instability. Nevertheless, it is important to emphasise that this observation is an initial finding. For an in-depth, multi-faceted examination of the relationship between these variables, a comprehensive panel data analysis will be presented in the subsequent sections of this thesis.

The subsequent phase of the initial data examination involved evaluating multicollinearity among the variables. As depicted in Table 3, the VIF values span between 1.295 and 4.322. It is noteworthy that all these values fall below the commonly accepted threshold of 5. This implies that multicollinearity does not pose a significant concern for the independent variables within the dataset.

*Table 3: Test for Multicollinearity*

| Income Inequality | GDP per capita | Inflation |
|---|---|---|
| 2.820 | 4.322 | 1.295 |
| **Voice and Accountability** | **Government Effectiveness** | **Youth Unemployment** |
| 3.719 | 4.201 | 2.821 |
| **Education** | **Urban Population** | **Ethnic Fractionalisation** |
| 3.708 | 3.337 | 2.263 |

Delving into specifics, GDP per capita obtains the highest VIF value at 4.322, signifying that it holds the strongest linear relationship with other variables in the model, though still within acceptable limits. In contrast, the inflation variable exhibited the lowest VIF value at 1.295, very close to 1, indicating a minimal linear relationship with the rest of the predictors. In conclusion, while the model's variables do exhibit certain degrees of correlation, none are so strongly interrelated as to jeopardise the integrity of the analysis. This positive finding supports more accurate and reliable interpretations of the model's coefficients and assures that the model is well-specified, allowing for unbiased estimations of the true parameters.

After completing the multicollinearity analysis, the results of the Hausman test are presented. In this case, the Hausman test resulted in a chi-squared statistic of 26.218 with a p-value of 0.001882. Notably, the p-value is practically zero, which is highly significant and provides strong evidence against the null hypothesis. Therefore, the findings imply that there is sufficient evidence to reject the null hypothesis, suggesting that the unique errors are not correlated with the independent variables. This leads to the conclusion that the fixed effects model is better suited for this panel data analysis than the random effects model. As a result, the fixed effects model will be used for the analysis of this panel data, with the results being explained and interpreted in the following chapter.

## 4.2 Panel Data Analysis

The panel data analysis of Latin America revealed compelling evidence supporting a positive relationship between income inequality and political instability. Eight fixed effects models were conducted, and the results are presented in Figure 5. In each model, new variables were introduced as control variables while keeping income inequality constant as the independent variable. The analysis employed estimated coefficients, standard errors (SE), p-values, R-squared, and adjusted R-squared to assess the effectiveness of the models and the statistical significance of the variables.

| | | | | Fixed Effects | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | *Dependent variable:* | | | | |
| | | | | Political_Instability | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Income_Inequality | 0.035*** | 0.020*** | 0.022*** | 0.018* | 0.017*** | 0.019** | 0.015* | 0.018** |
| | (0.005) | (0.006) | (0.004) | (0.009) | (0.005) | (0.009) | (0.008) | (0.008) |
| GDP_per_capita | | -0.00003*** | | | -0.00001 | -0.00004*** | | -0.00002** |
| | | (0.00001) | | | (0.00001) | (0.00001) | | (0.00001) |
| Inflation | | 0.003 | | | 0.005** | 0.006** | | 0.008*** |
| | | (0.003) | | | (0.002) | (0.003) | | (0.002) |
| Voice_and_Accountability | | | -1.071*** | | -1.058*** | | -1.072*** | -1.088*** |
| | | | (0.130) | | (0.131) | | (0.128) | (0.126) |
| Government_Effectiveness | | | -0.323*** | | -0.288*** | | -0.314*** | -0.256*** |
| | | | (0.097) | | (0.097) | | (0.095) | (0.094) |
| Youth_Unemployment | | | | 0.011** | | 0.006 | 0.008* | 0.005 |
| | | | | (0.005) | | (0.005) | (0.004) | (0.004) |
| Education | | | | -0.144*** | | -0.081 | -0.108*** | -0.083* |
| | | | | (0.050) | | (0.051) | (0.041) | (0.042) |
| Urban_Population | | | | 0.012 | | 0.025*** | 0.018** | 0.028*** |
| | | | | (0.009) | | (0.009) | (0.007) | (0.007) |
| Ethnic_Fractionalisation | | | | 1.375 | | 1.465 | 1.019 | 1.081 |
| | | | | (1.072) | | (1.036) | (0.876) | (0.852) |
| Observations | 254 | 254 | 254 | 254 | 254 | 254 | 254 | 254 |
| $R^2$ | 0.175 | 0.226 | 0.449 | 0.220 | 0.465 | 0.279 | 0.485 | 0.517 |
| Adjusted $R^2$ | 0.127 | 0.174 | 0.412 | 0.161 | 0.424 | 0.217 | 0.441 | 0.472 |
| F Statistic | 50.709*** (df = 1; 239) | 23.131*** (df = 3; 237) | 64.331*** (df = 3; 237) | 13.293*** (df = 5; 235) | 40.892*** (df = 5; 235) | 12.852*** (df = 7; 233) | 31.390*** (df = 7; 233) | 27.525*** (df = 9; 231) |
| Note: | | | | | | | | *p<0.1; **p<0.05; ***p<0.01 |

*Figure 5: Results of the Panel Data Analysis*

In the initial model, the relationship between income inequality and political instability was examined by solely focusing on income inequality as the explanatory variable. The coefficient of income inequality was estimated at 0.035. This positive coefficient suggests that as income inequality increases, political instability tends to rise as well. Specifically, a unit increase in income inequality was associated with an average increase of 0.035 in political instability. The accuracy of this estimate was supported by a notably low standard error of 0.005. This small SE indicates a high level of accuracy in the coefficient estimate, implying that the sample provides a trustworthy approximation of the impact of income inequality on political instability and that the results are not merely due to random variations in the data. Of particular significance is the p-value, which was extremely low at 1.25e-11. This value, well below the conventional significance thresholds of 10%

(\*p<0.1), 5% (\*\*p<0.05), and 1% (\*\*\*p<0.01), provides empirical evidence against the null hypothesis, which assumes no relationship between income inequality and political instability. This low p-value consequently supports the presence of a significant statistical relationship between income inequality and political instability in Latin America. Finally, the explanatory power of the model was assessed using the R-squared value, which measured 0.175. This means that income inequality accounts for about 17.5% of the variation in political instability. When adjusted for the number of predictors in the model, the adjusted R-squared value was slightly lower at 12.7%. While this is modest, it represents a non-trivial measure of explanatory power and suggests that income inequality plays a discernible role in influencing political instability.

In the second model, GDP per capita and inflation were integrated as economic variables alongside income inequality. The analysis consistently showed a positive impact of income inequality on political instability, with an estimated coefficient of 0.020, significant at the 1% level. This indicates that the relationship remained statistically significant, suggesting that it is a robust relationship and not due to random variation in the data. Interestingly, GDP per capita emerged as a significant factor in this model, with a coefficient of -0.00003 and a significant effect on instability at the 1% level. The negative coefficient indicates an inverse relationship between GDP per capita and political instability, meaning that as GDP per capita increases, political instability tends to decrease. This finding may imply that higher levels of economic development, as represented by GDP per capita, could be associated with more stability in the political environment, as predicted in Chapter 3. Conversely, inflation did not exhibit a significant impact on political instability. The p-value associated with inflation was 0.25, which exceeds conventional thresholds for significance. This indicates that within the scope of this model and dataset, inflation does not significantly affect political instability in Latin America. The absence of a significant relationship between inflation and political instability could be attributed to various factors, such as the influence of monetary policy or the presence of other economic variables that might interact with or overshadow the effect of inflation. Notably, the inclusion of GDP per capita and inflation improved the model's explanatory power. The adjusted R-squared value increased to 0.174, suggesting that the combined effects of income inequality, GDP per capita, and inflation explain approximately 17.4% of the variation in

political instability. This marks an enhancement compared to the first model and highlights the importance of considering multiple economic variables for a more sophisticated analysis.

The third model extended the analysis by introducing the governance variables, voice and accountability and government effectiveness. The coefficient of income inequality remained positive at 0.022, still reflecting a positive correlation with political instability. Notably, voice and accountability demonstrated a negative relationship with political instability, as reflected by its coefficient of -0.071. This negative relationship implies that an increase in voice and accountability tends to decrease political instability. Similarly, government effectiveness revealed a negative correlation with political instability, with a coefficient of -0.323. This implies that enhanced government effectiveness is associated with a decrease in political instability, suggesting that stronger institutions contribute to more stability. The statistical significance of these relationships is verified by their respective p-values, all of which are well below the 0.01 threshold. These small p-values are strong evidence against the null hypothesis and thus confirm that the influence of income inequality, voice and accountability, and government effectiveness on political instability is statistically significant at the 1% level. The model's explanatory power improved considerably with an adjusted R-squared value of 0.412, explaining about 41.2% of the variance in political instability. This is a substantial increase from the previous models, thereby accentuating the importance of the nature of the government and the quality of its institutions.

In Model 4, the analysis incorporated a set of sociodemographic variables: youth unemployment, education, urban population, and ethnic fractionalisation. The coefficient for income inequality remained positive, but its significance has decreased with a p-value of less than 0.1. This indicates a reduction in the impact of income inequality on political instability when accounting for sociodemographic factors. Notably, youth unemployment emerged as a significant contributor to political instability. It resulted in a positive coefficient of 0.011 and significance at the 5% level, suggesting that an increase in youth unemployment is correlated with a rise in political instability. Conversely, education showed a significant negative correlation with political instability at the 1% level, reflected by a coefficient of -0.144. This suggests that higher levels of education are associated with lower levels of political instability. Both urban population and ethnic

fractionalisation exhibited positive coefficients, indicating a potential positive correlation with political instability. However, their p-values exceeded 0.1, signifying that these relationships are not statistically significant at conventional levels. This implies that the data does not offer robust evidence for a substantial impact of urban population and ethnic fractionalisation on political instability. Lastly, the adjusted R-squared value of this model was 0.161, which is slightly lower than the 0.174 of Model 2 and significantly lower than the 0.412 of Model 3. This decline, despite the introduction of additional variables, suggests that the new variables in Model 4, particularly youth unemployment and education, were statistically significant but did not have as much explanatory power for political instability as the variables in the previous models.

In Model 5, both economic and governance indicators were included in the analysis. Income inequality influenced political instability again at the 1% significance level. In contrast, GDP per capita, which was significant in Model 2, lost its statistical significance in this model with a p-value of 0.585. This could be attributed to the inclusion of other influential variables that might have absorbed some of the explanatory power of GDP per capita. Another notable difference was observed in the impact of inflation. Contrary to previous models, inflation showed a statistically significant relationship with political instability at the 5% level. This newfound significance might be due to the inclusion of additional variables that revealed an effect of inflation that was previously obscured or an enhanced representation of the true underlying relationships between the variables. Voice and accountability and government effectiveness continued to display negative effects on political instability at the 1% significance level. This is consistent with the findings in Model 3 and suggests a recurring pattern where stronger political institutions and higher levels of accountability contribute to reducing political instability. Notably, the adjusted R-squared value of Model 5 significantly increased to 0.424, indicating that about 42.4% of the variation in political instability could be explained by this model. This substantial increase, compared to previous models, suggests that incorporating both economic and political factors offers a more accurate depiction of the dynamics underlying political instability.

In the sixth model, a combination of economic and sociodemographic variables was integrated into the analysis. Consistent with previous models, income inequality continued to show a significant positive relationship with political instability, albeit only at the 5%

significance level. Interestingly, GDP per capita, which had lost significance in Model 5, regained its 1% significance in this model. Inflation retained its 5% significance from Model 5 and continued to show a positive relationship with political instability. Youth unemployment, which had previously been significant, was no longer significant in this model, with a p-value of 0.193. This suggests that in the context of the sixth model, which includes a broader range of variables, youth unemployment does not have a significant impact on political instability. Education also showed no significant relationship with political instability in this model. This contrasts with the findings in Model 4, where education was found to be significant. The loss of significance could again be attributed to the inclusion of other variables in this model, which may have absorbed the explanatory power of education. Urban population, on the other hand, emerged as a significant variable, with positive effects on political instability at the 1% level. This is a finding that contrasts with Model 4, where urbanisation was not significant. Lastly, ethnic fractionalisation remained insignificant with a p-value of 0.159, indicating that it does not play a significant role in explaining political instability within the analysis. Overall, this model explained approximately 21.7% of the variation in political instability, which is a decrease from the 42.4% in the fifth model. This suggests that while Model 6 incorporates a wide range of variables, its explanatory power is somewhat less robust compared to Model 5. The diminished strength could be indicative of the importance of governance indicators, which were not included in the sixth Model.

In the seventh model, income inequality was considered alongside political and socio-demographic factors. Income inequality continued to exhibit significant positive effects on political instability, this time at the 10% level, similar to what was observed in model 4. Both voice and accountability and government effectiveness persisted in having a negative effect on political instability at the 1% level. Interestingly, youth unemployment and education had a significant effect on political instability again, at the 10% and 1% levels, respectively. The urbanisation rate continued to display a significant positive relationship with political instability at the 5% level, with a coefficient of 0.018. Ethnic Fractionalisation remained statistically insignificant. In terms of overall model fit, the adjusted R-squared of this model was 0.441, which is substantially higher than the previous models. This indicates that including political and sociodemographic factors alongside income inequality offers a more comprehensive understanding of the determinants of political

instability compared to considering income inequality and sociodemographic factors alone.

In the eighth and final model, all economic, governance, and sociodemographic variables from previous models were included. The model's Adjusted R-squared value was approximately 0.472, indicating that it explained about 47.2% of the variation in political instability. This result is very similar to the seventh model. Regarding the variable results, income inequality continued to show a significant impact on political instability at the 5% level, confirming the trend seen in previous models. GDP per capita was found to be statistically significant at the 5% level, consistent with earlier models except for Model 5. This finding suggests that the level of economic development, as measured by GDP per capita, can exert a significant impact on the political stability of a country. The coefficient of inflation persisted in being statistically significant, this time at the 1% level, indicating that inflation plays a crucial role in the model and potentially has a strong impact on the dependent variable. Voice and accountability and government effectiveness continued to exhibit negative and highly significant effects on political instability, which is consistent with the outcomes observed in previous models. Youth unemployment ended up not being significant, which is consistent with the results of the sixth model. Education, which had a significant negative impact on political instability in the seventh model and was insignificant in the sixth model, became significant again in this final model at the 10% level. The changing significance levels of youth unemployment and education suggest that the effect on political instability is less clear when considering all other variables. In contrast, urban population showed significant positive effects on political instability at the 1% level, confirming the results from the sixth and seventh models but contrasting with the fourth model, where urban population was not significant. Lastly, ethnic fractionalisation still did not show a significant impact in this analysis, suggesting that it does not play a crucial role in influencing political instability.

In summary, the analysis consistently demonstrates a significant positive relationship between income inequality and political instability across all models. This suggests that as income inequality rises, political instability tends to increase as well. Additionally, voice and accountability and government effectiveness also exhibit statistically significant effects on political instability throughout the analysis. The findings emphasise the crucial role of the nature and quality of the government in reducing political instability, as

supported by the high adjusted R-squared values indicating their explanatory power. However, the impact of variables such as GDP per capita, inflation, youth unemployment, education, and urban population remains less clear as their significance varies across models. This indicates that the potential influence may be context-dependent or influenced by other unaccounted factors. Interestingly, throughout the analysis, ethnic fractionalisation did not demonstrate a significant impact on political instability. This outcome aligns with the findings of researchers who reported no direct correlation between ethnic fractionalization and political instability, suggesting that other factors might play a more pivotal role in influencing the political stability of a country. However, ethnic fractionalisation stood out as the sole variable exhibiting a relatively high standard error in the analysis, which signals a lack of accuracy in the estimates. This suggests a cautious interpretation of the results and highlights the need for additional research with more robust data to explore the relationship between ethnic fractionalisation and political instability. Overall, the analysis provides a comprehensive understanding of the relationship between income inequality and political instability in Latin America, while also considering other influential factors. The study explains nearly 50% of the observed variation in political instability, highlighting the complexity of these variables and their interplay. It underscores the importance of addressing not only income inequality but also strengthening governance and addressing socio-economic aspects in order to effectively address political instability in the region.

## 4.3   Limitations of the Analysis

While the panel data analysis conducted within this research provides valuable insights into the relationship between income inequality and political instability in Latin American countries, it is necessary to acknowledge several critical limitations that warrant caution in interpreting the findings.

First, an important limitation of this study is the absence of data for six key Latin American countries: Chile, Cuba, Guatemala, Haiti, Nicaragua, and Venezuela. The unique socio-economic and political circumstances of these countries make them particularly relevant in the context of this study. Their omission, especially given that some of these countries are known for high levels of political instability, may have implications for the robustness and representativeness of the analysis. Moreover, data are missing not only

for the countries mentioned above but also for Mexico, where data are only available for 11 of the 20 periods provided. This lack of comprehensive data, both in terms of the exclusion of key countries and the reduced data set for others such as Mexico, is a significant obstacle. This limitation could affect the depth of the findings and the generalisability of the conclusions drawn from this study.

Second, the study is limited by its time frame, which only covers the period from 2002 to 2021 due to data inconsistency issues related to policy instability metrics. This potentially excludes influential periods in the history of Latin America where income inequality and political instability may have followed different dynamics. The inability to capture these critical periods might lead to an oversimplification of the long-term relationship between income inequality and political instability.

Moreover, income inequality and political instability are inherently complex and multi-layered concepts that are influenced by a variety of factors. The challenge lies in adequately capturing these complex interactions within a limited set of variables. The analyses demonstrated that the significance level of income inequality varied with the inclusion of certain variables. As a result, incorporating additional or alternative variables might have either strengthened or negated the observed significance. A major problem in studying the relationship between income inequality and political instability is therefore the potential for omitted variable bias. Numerous variables, including neighbourhood conflicts, natural resources, and historical events, could be correlated with both income inequality and political instability. However, constraints such as data availability and multicollinearity prevented the inclusion of all relevant variables in the analysis, potentially reducing the precision of the estimated relationship between income inequality and political instability. A specific example is the corruption variable, which is often attributed to having a significant impact on political instability (Karnane & Quinn, 2019). In this study, however, the variable could not be included due to its high multicollinearity with voice and accountability. Although aspects of corruption are indirectly included in the measurement of governance effectiveness, its explicit exclusion is noteworthy. Given these challenges, future analyses should focus on developing methods that allow for the integration of a broader range of variables that may be critical to understanding the relationship between income inequality and political instability.

Furthermore, there is no universally accepted definition or standardised measurement method for the included variables. Consequently, different underlying definitions and differently chosen indices for the variables may also have led to different results in the analysis. This finding also explains why different researchers have reached different conclusions and why no ultimate answer has yet been found. It should therefore be acknowledged that the use of alternative definitions or the application of different measurement methods may have led to divergent results in this analysis.

The concept of endogeneity also poses a significant methodological challenge. Endogeneity refers to the potential simultaneous interplay between the variables under study. This means that not only could income inequality and other factors influence political instability, but political instability could, in turn, impact income inequality and other economic, social, and political factors. This circular influence could create a bias in the estimated relationships and confound attempts to establish clear causal links (Schwerdt & Woessmann, 2020). Although this study has attempted to control for endogeneity through rigorous statistical procedures, its potential presence still warrants caution when interpreting the results.

Lastly, the generalisability of this study's findings is limited by its regional focus. The analysis was conducted using panel data from Latin American countries, each with its own unique socio-economic and political landscape. As a result, the observed correlations and conclusions may not necessarily apply to different regions or circumstances. Generalising these results to other countries would, therefore, necessitate further research to ascertain the validity and applicability of these findings in different socio-political contexts. The extent to which the findings of this study can be generalised across different settings is thus an important area for further exploration.

# 5. Conclusion

This thesis has undertaken a comprehensive examination of the complex relationship between income inequality and political instability in Latin America. Known for its compelling natural resources, rich historical heritage, and cultural diversity, Latin America is considered one of the most fascinating regions in the world. Notwithstanding these appealing attributes, the region faces significant income inequalities, positioning it among the world's most unequal territories. Alongside these inequalities, Latin America also faces significant political instability, further exacerbating the challenges. To delve into the dynamics between these two phenomena, the research question guiding this thesis was: What is the relationship between income inequality and political instability, and does income inequality have a significant impact on political instability in Latin America?

To address this question, the two key concepts of income inequality and political instability were first defined. Income inequality was conceptualised as the uneven distribution of household-adjusted income within a population, whereas political instability was framed as a government's propensity to collapse, characterised by various factors such as leadership changes, systemic challenges, popular discontent, and expressions of dissatisfaction. A review of the existing literature revealed a contested landscape of academic perspectives. Some researchers assume a positive correlation between income inequality and political instability, arguing that increases in income inequality are associated with higher levels of political instability. Other studies, however, assume a negative or non-significant correlation, suggesting a more nuanced interaction between these variables. This divergence of academic viewpoints underscores the complexity of the relationship between income inequality and political instability and sets the stage for a more in-depth investigation with more recent data in this thesis.

The investigative framework of this research was grounded in a quantitative research approach using panel data analysis. This methodology allowed for a detailed examination of the interplay between the independent and dependent variables across time and space. Political instability, the dependent variable, was measured by the *political stability and absence of violence/terrorism* index from the World Bank's Worldwide Governance Indicators. This indicator was chosen because it comprehensively takes into account not only changes in government but also politically motivated violence and terrorism. Income

inequality, the independent variable, was measured through the *Gini coefficient* obtained from the World Bank's Poverty and Inequality Database. In addition to these two central variables, the analysis incorporated a range of control variables. These encompassed economic indicators such as GDP per capita and inflation rates to capture the overall economic conditions in each country. Additionally, governance indicators, including voice and accountability and government effectiveness, were used to assess the quality of governance. Sociodemographic indicators such as youth unemployment, education, urbanisation rate, and ethnic fractionalisation were also integrated into the analysis to reflect the social environment of the countries. This extensive data analysis covered a time span of nearly two decades, from 2002 to 2021, providing a broad and thorough view of the evolving political and economic landscape. The geographical focus encompassed 14 countries, representing a significant portion of Latin America, thereby enhancing the study's regional relevance and comprehensiveness.

The empirical findings revealed a steady and significant positive correlation between income inequality and political instability in Latin America. The pattern observed suggests a linear relationship in which an increase in income inequality is associated with an increase in political instability. Specifically, the initial model, which considered only income inequality as a determinant, explained around 12.7% of the variation in political instability. This finding highlights the substantial role that income inequality plays in shaping the region's political landscape. However, a more comprehensive investigation was carried out by including additional control variables in the analysis. The explanatory power of this broader model rose to nearly 50%, indicating that other elements, apart from income inequality, have a substantial impact on the region's political stability as well. By incorporating these additional variables, the model offered a more detailed and accurate depiction of the diverse factors that contribute to political instability in Latin America. Among these additional variables, voice and accountability, as well as government effectiveness, emerged prominently due to their substantial explanatory power. This finding underscores the critical role that inclusive governance and efficient governmental structures play in the broader landscape of political stability. Therefore, any comprehensive approach to reducing income inequality and promoting political stability should include efforts to strengthen institutional structures, improve transparency, and promote political inclusiveness.

While this study has shed considerable light on the dynamics between income inequality and political instability, it has also pointed out areas for further exploration. Limitations of this study, such as missing data, the problem of endogeneity, and the potential for omitted variable bias, suggest potential directions for future research. Addressing these issues and expanding the analysis to encompass more countries, a wider time frame, or additional variables could enrich the understanding of the relationship between income inequality and political instability in Latin America. Furthermore, given the regional focus of this study, its findings are most relevant to Latin America and may not be universally applicable. Future studies comparing different regions could provide a broader, global perspective.

In summary, the insights gained in this thesis contribute significantly to the discourse on income inequality and political instability and provide a foundation for further research. Furthermore, the study revealed that achieving political stability in Latin America requires the creation of an equitable economic framework as well as the strengthening of political institutions that can ensure the cohesion of society. Consequently, it is imperative that policymakers and stakeholders in the region address the issue of income inequality while building robust political systems to pave the way for a more equitable and stable future.

## List of Acronyms

| | |
|---|---|
| CPI | Consumer Price Index |
| CV | Coefficient of Variation |
| FEM | Fixed Effects Model |
| GDP | Gross Domestic Product |
| H0 | Null Hypothesis |
| H1 | Alternative Hypothesis |
| HIEF | Historical Index of Ethnic Fractionalisation |
| PPP | Purchasing Power Parity |
| p-value | Probability Value |
| REM | Random Effects Model |
| SD | Standard Deviation |
| SE | Standard Errors |
| SPI | Socio-Political Instability |
| VIF | Variance Inflation Factor |
| WGI | Worldwide Governance Indicators |

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