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Jessica Clement

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The Evolution of Economic and Political Institutions in Developing Countries

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List of Abbreviations

CC	Comparative Capitalism
CCSI	Core Civil Society Index
CME	Coordinated Market Economy
CNAMGS	Caisse Nationale d'Assurance Maladie et de Garantie Sociale
DALE	Disability-Adjusted Life Expectancy
FE	Fixed Effects
GDP	Gross Domestic Product
HDI	Human Development Index
IC	Institutional Complementaries
ILO	International Labour Organization
IPD	Institutional Profile Database
IR	Insecurity Regime
ISR	Informal Security Regime
LEAP	Livelihood Empowerment Against Poverty
LME	Liberal Market Economy
LPA	Latent Profile Analysis
MAM	Middle Africa Model
MME	Mixed Market Economy
NHIS	National Health Insurance System
NHP	National Health Policy
PR	Proportional Representation
PRT	Power Resource Theory
RE	Random Effects
ROAM	Redevance Obligatoire L'Assurance Maladie
SAM	Southern African Model
SME	Social Market Economy
SSA	Sub-Saharan Africa
UNDP	United Nations Development Program
VoC	Varieties of Capitalism
WIID	World Income Inequality Database

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Chapter 1

Introduction

As nations around the world become closer and increasingly interdependent, the changing global context requires a parallel advancement of academic research. Theories developed for advanced democracies in the twentieth century now require complimentary additions, or perhaps diverging counterparts, to help explain the developmental processes of developing countries.

To address these changes, scholars have created new theories or extended old ones to consider developing countries. However, despite the positive and thorough advancements thus far, the dynamic nature of countries undergoing development and transition, both economic and political, means that the work is far from finished.

The literature on institutional development in the political economy for advanced democracies is, while still evolving, well established. The theories supporting the research within this thesis rely on comparative capitalism (CC) studies focused on advanced democracies. CC as a discipline considers how institutions across various economic spheres interact with one another to form unique national arrangements. Within these national configurations, institutions work in an interdependent manner to generate economic systems. Institutional complementarities within these systems produce distinct comparative advantages that, with inputs, shape how economic actors and the government coordinates (Jackson and Deeg, 2008).

As an offshoot of CC, the varieties of capitalism (VoC) approach, first delineated by Hall and Soskice (2001), was created to consider the institutional similarities and differences of advanced democracies with developed capitalist economies. VoC theory adopts a firm centric approach to show how firms develop and exploit core competencies. The way that firms manoeuvre different spheres in the political economy to solve coordination problems internally and externally of the

firm creates specific economic patterns at the national level. A country relying heavily on market forces to solve coordination issues is called a liberal market economy (LME). Contrary to LMEs, coordinated market economies (CMEs) rely on non-market, strategic relationships to coordinate with other economic actors and ultimately exploit their core competencies.

The VoC theory, and its extensions, shows how the LME and CME ideal types lead to different political intuitions, different types of welfare states, and different welfare state outcomes. This rich literature of VoC theory, while it does not go unchallenged, has provided a useful framework for considering the paths developed nations follow in the political economy.

The purpose of this thesis is, using the key tenants of CC and VoC theory, to expand this literature to developing countries. The philosophy found in this thesis is that, like advanced democracies, there should be underlying structural forces in the political economy that direct nations on certain pathways throughout development.

Chapter two, using VoC theory, tests if economic ideal types in the developing world impact political institutions. The results of this chapter indicate that coordinated economies, characterized by skilled production, a stronger manufacturing sector, widespread primary education, lower levels of unemployment, and lower levels of market capitalization tend to produce a higher effective number of parties, translating into a more proportional electoral rule system. These results are stronger for democracies than they are for the full sample of 65 developing countries.

In chapter three, this thesis considers how the economic institutions found in the ideal types co-evolve with the political institutions formed along their pathway to development. This shows how economic and political institutions co-evolve, and how this co-evolution creates a certain trajectory that affects the welfare state and ultimately welfare state outcomes. Chapter three shows how labour market indicators are coordinating features for the labour market. In turn, as coordinated economies tend to have coordinated labour markets, these variables serve as a representation of the coordinated economy. This chapter shows how features of the coordinated labour market im-

pact the welfare state, and welfare state outcomes, such as inequalities and poverty. Moreover, this chapter highlights which of these indicators are the most powerful in influencing the welfare state system. This chapter concludes that, as it has been previously shown in the literature with advanced democracies, the co-evolution of economic and political institutions tend to produce different types of welfare states with welfare state outcomes.

Finally, as much of this thesis is based off previous literature and empirical studies, chapter four in this thesis focuses on a specific region, Sub-Saharan Africa (SSA), to further advance the knowledge on the welfare state and social protection in developing countries. To accomplish this, chapter four uses a latent profile analysis (LPA), which is an empirical method used to uncover concealed groups in data. The goal of the LPA in chapter four is to find clusters within SSA using social protection variables, a civil society measure, welfare outcome variables, and a measure of democracy. In effect, chapter four uses the concept of the welfare mix and welfare outcomes to divide the Sub-Saharan African countries into various latent clusters. The social protection variables, which constitute the welfare mix, used in this analysis are government spending on education, government spending on health, domestic private spending on health, remittances from abroad, and foreign aid. A civil society index is also included to measure community support. The welfare outcome variables used are the Human Development Index, the adult literacy rate, poverty, and the life expectancy. Chapter four further uses a democracy index to discover if the fact of being a democracy affects social protection clusters in SSA.

Thus, this thesis provides an overall view of how economic structure, comprised of various economic institutions, impacts political institutions, and then how these economic and political institutions co-evolve to form certain path dependent trajectories. Ultimately, this thesis considers how these particular pathways influence the welfare state of a nation, and the welfare state outcomes derived from the types and level of social protection that the welfare state produces in developing countries.

Chapter 2

Electoral Rule Choice in Transitional Economies

2.1 Introduction

In 2010, a wave of protests, popularly coined as the Arab Spring, started in Tunisia. Two years later, at the end of the civil uprisings, 17 Middle Eastern and North African regimes felt at least some pressure from the people in their country, and five countries actually experienced a regime change¹. In Syria, a multi-sectarian civil war persists since 2011, with the original leader still in power. Presently, only Tunisia has emerged from internal conflict as a democracy. These uprisings resurfaced the question of emerging democracies, and the paths that a nation can choose from their transition into their following consolidation.

The Arab Spring and subsequent global unrest sparked a debate about whether a fourth wave of democracy emerged in the global political arena starting in 2010². A different source started each wave, but the end result stays the same : a government transitioning from a non-democratic regime to a democratic one. A key issue arises from these emerging democracies, or ‘countries in transition’, about what types of government institutions will be adopted by the new democracies. The emphasis in this chapter is placed on what determines electoral rule choice in transitional nations.

This chapter considers how economic structure impacts the proportionality of the electoral system, via the electoral rules adopted by a country. A varieties of capitalism approach is used to determine

1. These countries are Egypt, Libya, Morocco, Tunisia, and Yemen.

2. From the article : “Starting in Egypt : The Fourth Wave of Democratization ?” by Stephan R. Grand (Feb., 2011). Grand suggests that with the collapse of the Ben Ali regime in Tunisia and the Mubarak regime struggling (at the time) in Egypt there may be a fourth wave of democracy. The previous three waves of democracy come from the book by Huntington (1991).

if the coordinated market economies and liberal market economies divide exists in transitioning countries by using simple, disaggregated macroeconomic indicators. Coordinated economies rely on strategic or non-market coordination, meaning that economic actors work together to achieve results outside of market forces. A liberal economy functions by mainly using market forces to solve coordination problems.

Previous work by Cusack, Iversen, and Soskice (2007, 2010) found that in Western Europe the economic structure shaped the outcomes of electoral rule choice at the turn of the 20th century. This chapter intends to extend the existing theoretical framework to transition countries, including two Arab Spring participants, Morocco and Tunisia, to evaluate electoral rule choice when building new government institutions. The remaining countries studied in this chapter include nations from Latin and South America, nations from Sub-Saharan Africa, nations affected by the dissolution of the USSR, and emerging economies in Asia. Specifically, this chapter tests if the evolution of the organization and structure of the economy as a country undergoes a political transition impacts its electoral rule system. It is predicted that more coordinated economies, as defined by their macroeconomic characteristics, will lead to more proportional electoral rule systems.

To test this hypothesis, the effective number of parties resulting from legislative elections, which is used as a proxy for the electoral rule system, is regressed on macroeconomic indicators, which are used as proxies for coordination. Next, additional regressions use a democratic sample to witness the differences between non-democratic and democratic regimes undergoing the transition process. This addition is needed since many transitional nations cannot be considered as democratic, and the theoretical framework is set for democratic countries. Although using the democratic sample touches the previous literature more closely, it is an interesting exercise to see how this theory works for countries in general in the developing world, democracies or not.

The findings show that strategic coordination, as measured by basic attainment of education levels, a strong industrial sector, a focus away from exports, which are likely commodity goods, and a weaker reliance on equity markets to access finance, tend to encourage the adoption of proportional

representation (PR) electoral rules. The findings are stronger in democracies.

The structure of the chapter is as follows. First, the theoretical background on CMEs versus LMEs, the majoritarian and PR electoral rule divide, and the effect of economic organization on electoral rule choices is presented. Second, a brief note about the structure of transitioning economies provides insight into the countries studied in this chapter. Then, the data are explained, along with the empirical approach used in this chapter. After, the results from the empirical work are given and interpreted. Finally, the conclusion summarizes the findings from this study.

2.2 Literature Review

This chapter considers a range of literature due to the multidisciplinary approach used in this study. When considering CMEs versus LMEs, Hall and Soskice (2001) place the firm at the center of the analysis. They state that firms are actors seeking to exploit core competencies, or methods to develop, produce, and distribute goods profitably. Capabilities of the firm are relational, so the firm must coordinate with the economic actors connected to the success of the firm. There are five spheres firms need to develop in order to eliminate the coordination problems that arise with the relational nature of the firm : the industrial relation sphere, the vocational training sphere, the corporate governance sphere, the inter-firm relations sphere, and the sphere of employee relations.

Non-market relationships define the way CMEs build and exploit their core competencies. Vocational training systems, technology transfers, labour market regulation, and employee representation characterize coordinated capitalist countries. In CMEs, employers are more prone to cooperating with unions to ensure that the workers are trained with specific skills.

In LMEs, firms coordinate mainly through the competitive market. There is an emphasis on flexible labour markets, which favour general education and skills, and the dismantling of unions. Firms have little incentive to protect their employees, as their employees have no specific skills unique to their firm or industry (Soskice and Iversen, 2011).

CMEs and LMEs each have institutional complementarities (ICs) operating across their respective political economic spheres. ICs occur when the presence of one set of institutions raises the returns available from another institution. Amable (2016) states that when jointly present, ICs reinforce one another and improve the function and stability of specific institutional configurations. This becomes quite relevant as ICs imply there is no “right way” of configuring an institutional set up, only that one institutional presence in an economy impacts another.

Development on the VoC literature came after the realization that many countries did not fit into either the CME or LME category. After recognizing that a type of ‘mixed market economy’ (MME) exists, scholars such as Amable (2003) extended the VoC theory to include more classifications, such as the Market-based Model, the Social-Democratic model, the Continental European Model, Mediterranean Model, and the Asian Model.

However, the inclusion of MMEs and additional categories still largely focus on developed countries. Others have created theories to explain the type of capitalism in Latin America (Bizberg, 2014) and East Central Europe (Nölke and Vliegthart, 2009). Although the inclusion of developing countries using new categories provides insight into workings of the respective countries or regions, the new VoCs are, in most cases, extremely specific and are limited regionally. Thus, a gap in the VoC literature exists, for it is still unknown whether the theory built around advanced democracies can be applied to developing or transitioning countries.

The VoCs are linked to political institutions. Before considering political institutions, however, one should first understand how democracies are shaped. Lijphart (1999) divides democracies into two separate camps : majoritarian democracies and consensus democracies. The camps are defined by the underlying belief of to whom governments are responsible. Majoritarian countries believe the government should be accountable to the majority of the people, while consensus governments should be accountable to as many people as possible. Lijphart (1999) finds that consensus governments tend to multi party systems with PR, while majoritarian governments tend to two party systems with higher levels of disproportionality.

Cusack, et al. (2007) extend this idea by explaining how the economic structure of a country influences the choice of electoral rules. They find that when looking at advanced democracies, countries with coordinated economies at the end of the 19th century tended to develop PR electoral rules at the turn of the 20th century. On the other hand, the nations with LMEs tended to develop majoritarian electoral rules.

Cusack, et al. (2007) conclude that the origin of PR came from the movement of economic networks from a local to national level. With coordinated local economies, a common interest existed in a regulatory system and some form of insurance against specific assets with respect to skill acquisition. The incentives and opportunities for class collaboration inspired the PR system.

Cusack, et al. (2010) show this logic also works in the short run. Countries with organized economic interests leads to specific groups wanting their interests represented in the legislature. The short run argument aligns up with the long run analysis because a political economy that starts with heavy investment in co-specific assets will be comprised of representative parties. PR is the preferred electoral system when parties are representatives of specific interests.

Conversely, majoritarian systems keep their electoral system in place because their political economy is starting off with investments in general assets, and therefore want an electoral rule system that benefits broad campaigns that target the support of a “middle” group. In the short run, economies comprised of weakly organized interests will opt to maintain the majoritarian electoral rule system in order to best protect the middle class interest.

Including the short run analysis in the argument is crucial because it extends the investigation to a set of newly democratizing countries and their choice of electoral systems.

2.3 Theory

This chapter tests the work of Hall and Soskice (2001) and Cusack, et al. (2007, 2010) on a sample of transitioning countries. Here, transitioning countries are defined as countries in the process, at any stage, of undergoing a regime change from an authoritarian regime to a democracy. These nations largely overlap with what are considered developing countries in economic literature. The literature on the types of capitalism, and the following adoption of electoral rules for advanced democracies is well known, but little exists about how economies in transition adapt and then evolve their political institutions, notably their electoral rules.

In general, the concepts derived from the work by Cusack, et al. (2007, 2010) are applied to this study. There are, however, a few notable exceptions. The first exception comes from the nature of national continuity. Where advanced democracies have experienced decades of stability, developing nations may have been disrupted by colonization or civil wars.

A second issue arises from variable choice. For example, Cusack, et al. (2007) considered the presence of traditional guilds to increase the level of coordination in the economy. However, transitional countries have experienced ruptures in their economies that have hindered the development of traditional guilds. An example of this is the economic reorganization of colonized countries to serve their parent country, such as how the Belgian government set up extractive institutions in the Congo (Acemoglu, Johnson, and Robinson, 2001). For this reason, variable selection may differ in this analysis.

Other variables to consider arise from development economics. Development economics often focuses on how certain macroeconomic indicators impact democracy and the democratic transition. Advocates of modernization theory state that as a country develops, by increases in the levels of education and income, it will become more democratic.

If indicators such as education or other macroeconomic variables can impact the evolution of democracy, then they might also help in understanding how the structure of the economy, as it is

formed by macroeconomic variables, can impact the path of democracy of a transitioning country.

2.4 Data and Empirical Approach

2.4.1 Sample Selection

The database constructed for this study includes 65 countries selected from the Bertelsmann Transformation Index (BTI) from Bertelsmann Stiftung. Every country in the BTI was used in this database if there was also available election data and economic data for the respective country. The countries used are shown in appendix A. Overall the BTI includes 129 countries. The election data come from the Parline database supported by the Inter-Parliamentary Union, an organization that works closely with the United Nations.

The time period for this study ranges from 1995 to 2012. This period was chosen due to the ability of data and due to the characteristics of the countries included in this study, notably that many countries formed only in the 1990s.

2.4.2 The Effective Number of Parties

Effective number of parties (effnops). The dependent variable is the effective number of parties resulting from legislative elections. In the case of bicameral legislatures, all election data came from the lower house. A unicameral legislature is a legislative system with only one body of parliamentary members, for example the Danish parliament, the Folketing. A bicameral parliament is a legislative system that has two houses, the lower house, which typically is bestowed with more power, and the upper house. An example of a bicameral legislative system is the United States with the House of Representatives (lower house) and the Senate (upper house). This variable is intended to proxy the electoral rule systems studied in the literature : proportional representation and majoritarian.

There are differences between the proxy used in this chapter and the actual electoral rules of a system. An electoral rule is an ex ante tool to allocate seats in a legislature. The effective number of parties is an ex post number indicating the fragmentation of a legislature. A more fragmented legislature represents a more proportional legislature because each different fragment represents a separate entity. This proxy works by indicating that a high number means the system tends toward PR, while a lower number indicates a majoritarian system with a smaller number of effective parties³.

The effective number of parties can be found by measuring either votes or seats gained by each party that arise from an election. This chapter uses the number of seats. The variable is calculated by

$$effnops = \frac{1}{\sum s_i^2} \quad (2.1)$$

where s represents party i 's proportion of the seats gained. This measure provides a more realistic representation of seats in a parliament because it places a higher weight on parties with many more seats than on parties with few seats (Benoit, 2001). The number 4.14 implies that the party system is “in effect” as fragmented (proportional) as if there were 4.14 identically sized parties.

This variable was chosen due to the availability of data and because of the abundant use of the effective number of parties as a measure of proportionality in the literature. It should be noted that criticism of the index has come up⁴, and another measure of proportionality, the effective electoral threshold, is often said to be a stronger measurement tool. However, as Gallagher (1991) points out, no single method is uniquely accepted as a means to measure proportionality. Additionally, calculating the threshold from the average district magnitude typically gives an overestimation due to the presence of large districts (Kalandrakis, 2002).

Lastly, using OECD data, the two variables tend to correlate to one another, such that a more

3. Markku Laakso and Rein Taagepera developed the effective number of parties indicator in the late 1970s to measure party system fragmentation. The basis for the variable comes from a fractionalization indicator constructed by Douglas Rae (1968). This variable gives the in effect number of parties in a legislature resulting from an election.

4. Golosov (2010) states that the mathematical devised by Laakso and Taagepera is associated with the serious problem that the index does not differentiate well between cases of one-party dominance and two-party constellations.

proportional system will have a lower effective electoral threshold and a higher number of effective parties. The correlation coefficient is -0.67 and a regression run using the OECD data shows that the p-value is significant at one per cent and the R-squared value is 0.4426. Thus, the effective number of parties is regarded as the best available variable for this study.

The effective number of parties changes with each election year, and then stays the same throughout the database until the next election year for a specific country.

2.4.3 Independent Variables

The goal of this chapter is to witness how the level of economic coordination, whether it reflects either a CME or LME, impacts the choice of electoral rules. The independent variables represent economic coordination within a country. Economic coordination can be tricky to define in the empirical and in the literal sense. Indeed, Hall and Gingerich (2009) state that coordination is not perfectly measured in the political economic literature. The use of five macroeconomic variables avoids the problems of using coordination indices, outlined in detail below, by evaluating the performance of the economy as suggested by the actual level of the coordination in the economy, not the way in which an index suggests the level of coordination should be.

The first attempt to analyze the connection between proportionality and coordination was made by using a compilation of economic coordination indicators found in the Institutional Profile Database (IPD)⁵.

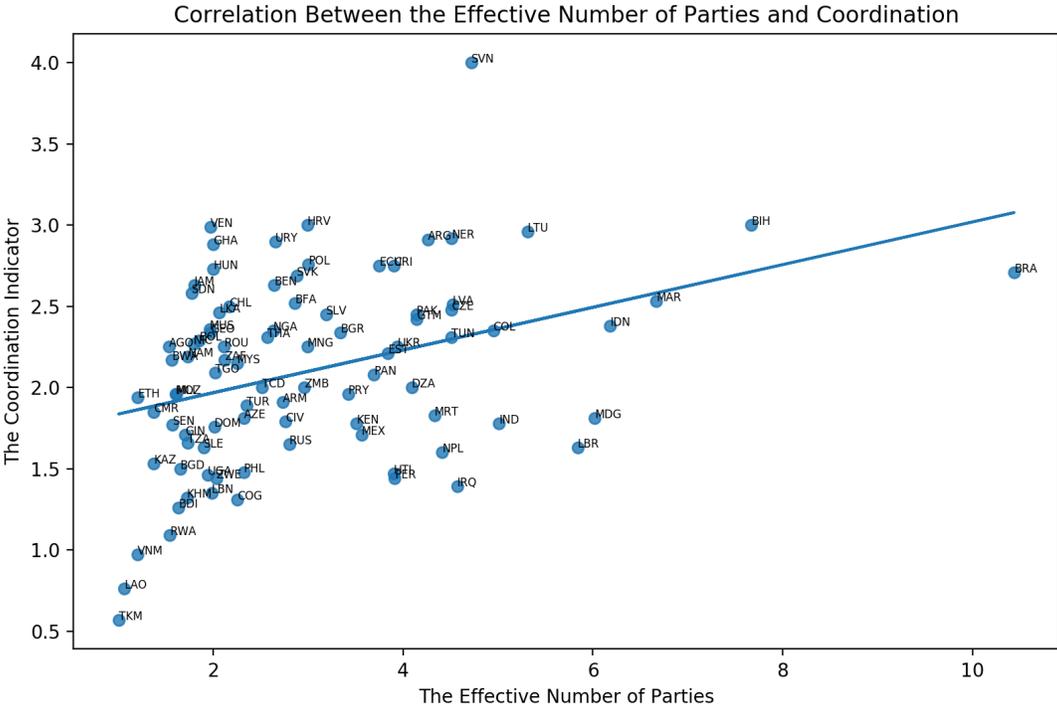
The compilation of the economic coordination index uses four key economic coordination variables that are found in the IPD (2012), which included 143 countries in the 2012 round. These variables include the independence and pluralism of trade unions, redeployment and retraining mechanisms for employees and continuous vocational training, employment contract protection, and the effectiveness of social dialogue at a company level, a national level, and a branch level. Each

5. The IPD has four rounds from years 2001, 2006, 2009, 2012. It is a valuable resource for cross-section assessment, but is not yet appropriate for time series analysis due to the inconsistency across rounds.

of the separate components of coordination also has a positive relation with the proportionality of the electoral rule system, but in order to give a more encompassing view, the four indicators were combined⁶. A score of 0 represents very weak or absent non-market coordination, whereas a score of 4 represents a high level of non-market coordination. The effective number of parties measures the proportionality of the electoral system.

The graph shown in figure C.3 includes 89 countries⁷. In the North-East quadrant of the graph, the section of the graph with a higher number of effective parties and a higher ranking of coordination, all countries have adopted PR systems. The most South-West quadrant of the graph, the part including Turkmenistan, Laos, and Vietnam, includes countries that have adopted majoritarian electoral rules, as stated by the Database for Political Institutions.

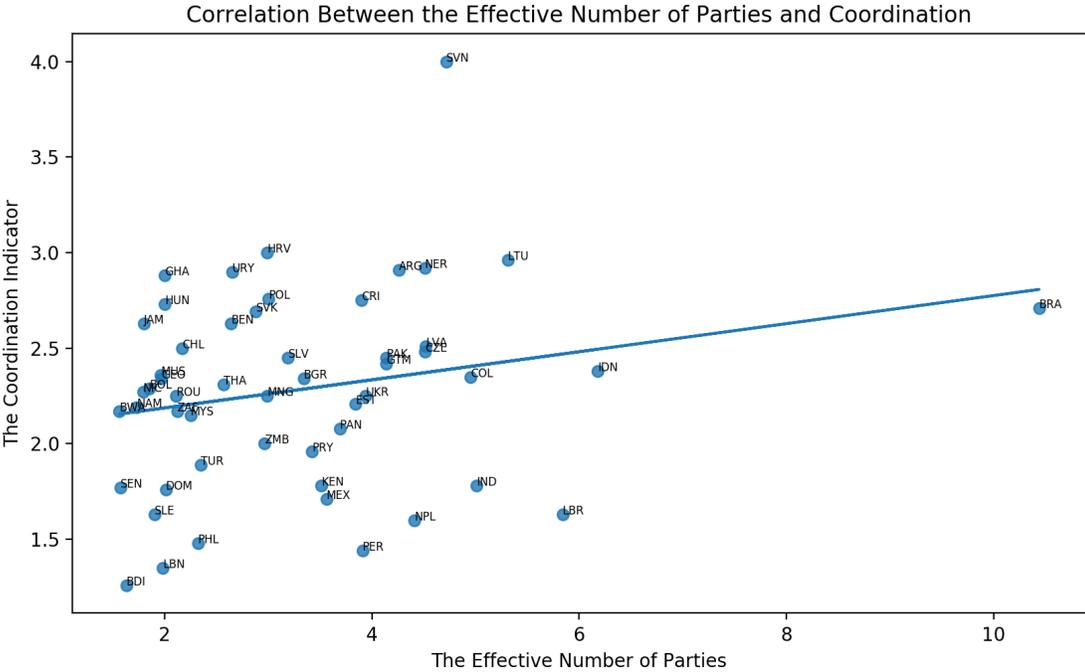
Figure 2.1: Correlation Between the Number of Effective Parties and Coordination



6. These variables were compiled using a simple average.
 7. Due to additional data available, more countries are evaluated in this descriptive statistic than in the final regressions. All countries included in the regression are included in this graphic.

However, many of these countries in the South-West quadrant of figure C.3, notably the specific ones mentioned above, are not authentic democracies. For this reason, the graph shown in figure C.4 includes 52 countries, which represent the democratic sub-sample from the database. The South-West quadrant shows a mixture of electoral rules, but in the section of the graph corresponding to the countries with the highest level of coordination and the highest number of effective parties, only PR electoral systems remain. The data suggest that there is a tendency for high coordination in an economy and a large number of effective parties to correspond with proportional electoral rules.

Figure 2.2: Correlation Between the Effective Number of Parties and Coordination for the Democratic Sub Sample



To improve the understanding about the relationship between the effective number of parties and the economic coordination of a country, a regression analysis is used in this chapter.

Coordination indices are often advised when studying economic coordination. For example, Botero, et al. (2004) builds coordination indices for 85 countries based off of employment, collective

relations, and social security laws. These indicators are beneficial for studying more developed countries, but may overestimate the strength of coordination in an economy for the cases of developing or transitioning countries for a few reasons.

First, instead of one index, a panel database shows how the economic structure impacts the proportionality of the electoral rule system over time. Also, these coordination indices are usually built after the beginning of the democratic transition.

The next drawback of indices is that written laws may be carried out differently in practice than what is stated in written form. For example, in Mozambique, a law formed in 1990 strongly protected the rights of workers, but this law was limited because the way the companies behaved (misrepresentation of company performance, mismanagement) hindered the performance of unions. Often, the laws in the rulebooks of developing nations are not enforced or formally respected (Dibben and Williams 2012).

A third drawback when using a coordination index for this study unfortunately applies to the work done in this chapter as well. Transitional countries often have a large proportion of informal labour. An International Labour Organization (ILO) report using 40 countries, 37 of which are in this study, evaluates the severity of informal labour. Out of the 37 countries which overlap between the two studies, 19 countries have over a 50 per cent share of informal jobs in total employment, over a 50 per cent share of people employed in the informal sector, or over a 50 per cent share in both of these categories. When lowering the threshold to 30 per cent, 29 countries fall into one of these three categories⁸.

Additionally, Webster, Wood, and Brookes (2006) state that in Sub-Saharan Africa, a region featured in this chapter, there is a reliance on personal networks in the labour market that favour local practices over lawful ones, such that even when labour unions are present, their impact on practices in the workplace is likely to be limited in scope. For example, the 1998 Labour Law in Mozam-

8. ILO Database from “Women and men in the informal economy – Statistical picture.” Found in ILO LABORSTA Internet by ILO and WIEGO.

bique provides workers a sufficient level of job security and collective bargaining rights, but this law excludes casual workers. To avoid being subject to the 1998 Labour Law, firms increasingly began to classify their employees as casual workers.

This means that despite having laws that provide (or discourage) coordination between the firm and its employees or unions, a significant amount of the work force is not ruled by the legal framework, making the coordination indices less useful.

Due to the problems outlined above and insufficient coordination data on transitioning countries, the strategy used in this chapter is to evaluate how coordinated economies impact certain macroeconomic indicators, and then use these indicators as proxies for coordination.

The macroeconomic variables serving as the independent variables in this study come from the World Development Indicators database by the World Bank.

*Exports*⁹. Cusack, et al. (2007, 2010) state that skill-based exports of goods and services, as a percentage of GDP, should have a positive relation to electoral proportionality. Exports within the industrial sector levy a premium on the ability of firms to differentiate their products, thus encouraging firms to take advantage of specific skills. Cusack, et al. (2007) state that a strong export sector works as an indicator of the necessity for compromises over wages and training, which is a known feature of coordinated economies.

However, in this chapter a significant portion of the transitional countries are commodity exporters. If a country has a significant export sector, but is largely exporting commodity goods, this could reflect a lack of coordination in the economy, as workers are not required to have high levels of skills to work for firms focused on commodities. Exports are an important indicator in categorizing CMEs, but the composition of the export sector is the crucial factor. *Exports*, due to the two potential effects, have an ambiguous relation to the effective number of parties.

9. *Exports* is defined as exports of goods and services, as a percentage of GDP. (World Bank)

Primary. Primary education, as measured by the total primary completion rate¹⁰, is expected to have a positive relation to the effective number of parties in this study.

Turner (2006) states that CMEs have institutions that limit the amount of educational inequality. Moreover, the mean percentage of GDP spent on social expenditures, a category that includes public education, is higher in CMEs than in LMEs.

Iversen and Soskice (2009, 2011) add to this concept by finding that there is more education equality in CMEs, and that educational performance is better in CMEs at the lower end of the scale. In CMEs, those with little formal education earn higher education scores as compared to their counterparts in LMEs. The link between basic educational attainment is related to the prevalence of vocational training in CMEs. Further, they conclude that businesses in CMEs require relatively high levels of literacy and numeracy, even for those from weaker educational backgrounds, in order to invest in further training in their workers. In LMEs, there is an increasing need for higher education, which by extension means that those who achieve a higher education also passed the primary level, but this achievement comes at the cost of increasing inequality in educational outcomes in these countries. Since the amount of educational inequality is minimized in CMEs, there should be an overall higher number of people who achieved a primary education.

Moreover, Hall and Gingerich (2009) state that training systems in CMEs build off what the workers employed by a firm achieve in formal schooling before employment. Since having a primary education is a base on which to build these skills, a high level of primary education will be encouraged in CMEs and positively impact electoral system proportionality.

Manufacture. As a proxy for the level of industrialization, the amount of manufacturing as a percentage of value added to GDP is predicted to have a positive relation to the effective number of parties. Countries with high levels of industrialization face the greatest need to organize and coor-

10. Primary completion rate is measured as the gross intake ratio to the last grade of primary education. It is calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age (World Bank).

dinate their economic activities. Jo Martin and Swank (2012), who focus on the role of business associations and labour market coordination, state that the leaders of industrialization incur the greatest need to organize to obtain economic order, and therefore higher manufacturing shares of total economic output should tend to encourage higher levels of business organization. In addition, firms in manufacturing require a more skilled labour force to produce their product. Manufacturing firms provide specific training to their workers, and workers will demand insurance for the skills in which they have developed. For this reason, *manufacture* should positively impact proportionality.

*Unemployment*¹¹. Kenworthy (2002) analyzes the relationship between corporatist countries and unemployment. Corporatist countries, due to the emphasis on bargaining and negotiation, align with the coordinated market economies. Kenworthy states due to wage restraint, many studies have shown a connection between low unemployment and corporatist countries. He finds a relationship between countries with coordinated wage-setting agreements and low unemployment in the 1980s for OECD countries. This relation continues into the 1990s, but the reasoning behind the relationship changes. In the 1990s, the link between corporatist countries and low unemployment is because of union participation in policy making instead of wage coordination.

Turner (2006), with a similar study, finds that in the OECD during the 1980s in CMEs, unions traded wage restraint for employment, which limited the amount of unemployment in the economy.

In a more time-consistent manner, Pontusson (2005) provides a convincing argument for the relationship between coordinated economies, or as he names them, social market economies (SMEs), of advanced democracies and unemployment. Pontusson divides the category of advanced democracies into Nordic SMEs, Continental SMEs, and LMEs. He uses this division to visually display unemployment performance across five different time periods, 1980-84, 1985-89, 1990-94, 1995-1999, and 2000-2003. In three time periods out of five, from 1980-1994, the average unemployment in both Nordic and Continental SMEs was lower than in LMEs. After taking the average

11. Unemployment is defined as the share of the labour force that is without work but available for and seeking employment (World Bank).

of the unemployment levels for Nordic and Continental SMEs, the unemployment level becomes lower for SMEs as a group than the LME category across all five periods. Pontusson does state that LMEs have succeeded in lowering unemployment in this time period, but his analysis clearly shows that, overtime, coordinated economies succeeded in maintaining lower levels of unemployment compared to liberal economies. This finding aligns with the theory of coordinated capitalism, as the economy-wide collective bargaining practice found in CMEs encourages wage restraint, which may help improve the trade off between unemployment and inflation. Also, unemployment benefits, a notable feature of CMEs, are linked to lower levels of unemployment in coordinated economies.

For this reason, *unemployment* is predicted to have a negative relation to the effective number of parties.

Capital. The variable *capital* stands for the market capitalization¹² of listed domestic companies, as a percentage of GDP, and can be thought of as a proxy for the stock market. Hall and Soskice (2001) consider that firms must be able to raise finance as a key component of VoCs. Firms operating within a liberal economy typically use bond and equity markets for external finance more often and more intensely than in coordinated economies. Jackson and Deeg (2006) extend this idea by stating LMEs are more market-based than CMEs, and work in more securities-market oriented systems. Conversely, CMEs tend to be bank based, as bank based systems are likely to support investment in non-tangible assets, like employee training. Hall and Gingerich (2004) state CMEs ability to access finance is linked to their reputation rather than their share value, whereas LMEs tend to rely on large equity markets.

Hall and Gingerich (2004) note that recently CMEs have placed more emphasis on the stock market when attempting to access finance, but this pattern holds true for LMEs also. In liberal countries there is a greater reliance on market capitalization compared to bank-based means of accessing

12. Market Capitalization represents the share price multiplied by the number of shares outstanding for listed domestic companies (World Bank).

finance, even if CMEs are starting to rely more on equity markets. For this reason, *capital* should be positively associated with more liberal economies, and therefore should inversely related to coordinated economies. *Capital* should have a negative relation to the effective number of parties.

Included in extended versions of the model are two dummy variables that account for change in the electoral system. First, *electionyear* is a dummy variable that accounts for if the year in question was an election year. *Electionyear* takes the value of 1 if the country considered held an election that year, and the value of 0 otherwise. The presence of an election year is not expected to influence the proportionality of the electoral system.

Secondly, the variable *overthrow* is a binominal variable, taking the value of 1 if there was a non-democratic change in leadership during the year considered. The data for overthrow comes from the Center for Systemic Peace database on coup d'état events (Marshall and Marshall, 2014).

Overthrow is expected to be negatively related to the effective number of parties in a country, because a non-democratic means of leadership change reflects a power-grab within the country. In any situation where the government cannot control power changes within its borders, the strength of cooperation and ability to proportionally represent the people of the country is greatly weakened.

A third dummy variable indicating whether a country actually has adopted a proportional representation electoral system, *PR*, is included in the last model in this chapter. The *PR* variable takes the value 1 if the electoral rule system is a PR system, and takes the value 0 if otherwise. The inclusion of this variable is a simple robustness check to see that, indeed, the PR system is associated with a higher number of effective parties.

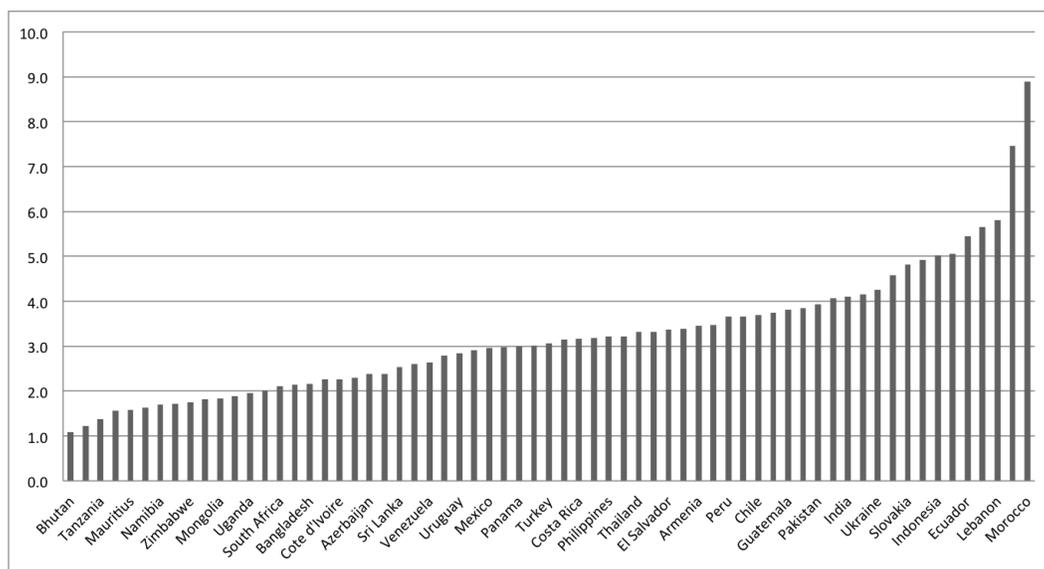
2.4.4 Descriptive Statistics

Before performing a panel regression analysis, the dependent variable and the independent variables are considered in greater detail.

The effective number of parties, or *effnops*, in this chapter represents how many different political

parties there are in the legislature. In this sample of 65 countries, the average effective number of parties by country from 1995 to 2012 ranges from a low of 1.1 in Bhutan to a high of 8.9 in Morocco. The average across the sample for this variable is 3.22. The largest change in the effective number of parties can be seen in Lebanon, where the effective number of parties decreases from 10.63 in 1995 to 1.98 in 2012.

Figure 2.3: **The Averages of the Effective Number of Parties Across Countries from 1995 to 2012**



The independent variables comprise macroeconomic variables that reflect how coordination affects economic indicators. First, the export variable is considered, and its averages are shown in figure 2.4. Once again, the averages are taken for each country from 1995 to 2012.

Bangladesh has the lowest average of exports, with 14.1 per cent of GDP comprising exports. On the other end of the scale, Malaysia has the highest average, with 102.8 per cent of GDP comprising exports. The total average for the sample is 37.9 per cent.¹³

Next, the manufacturing variable is reviewed. Manufacturing as a per cent of GDP, which is shown in figure 2.5, is lowest in Nigeria, with 3.4 per cent, and highest in Thailand, with 33.4 per cent.

The average across countries for this sample is 16.4 per cent of GDP.

13. Exports can be above 100 per cent, as seen with the case of Malaysia. This occurs when countries are exporting more than they are importing, and typically happens in small countries with high levels of productivity.

Figure 2.4: The Averages of the of Exports (as a per cent of GDP) Across Countries from 1995 to 2012

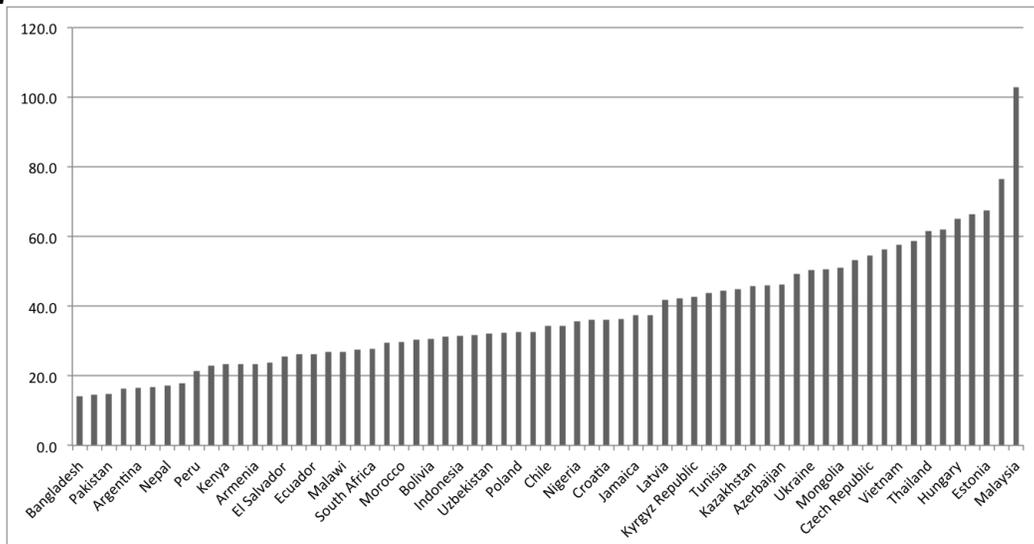
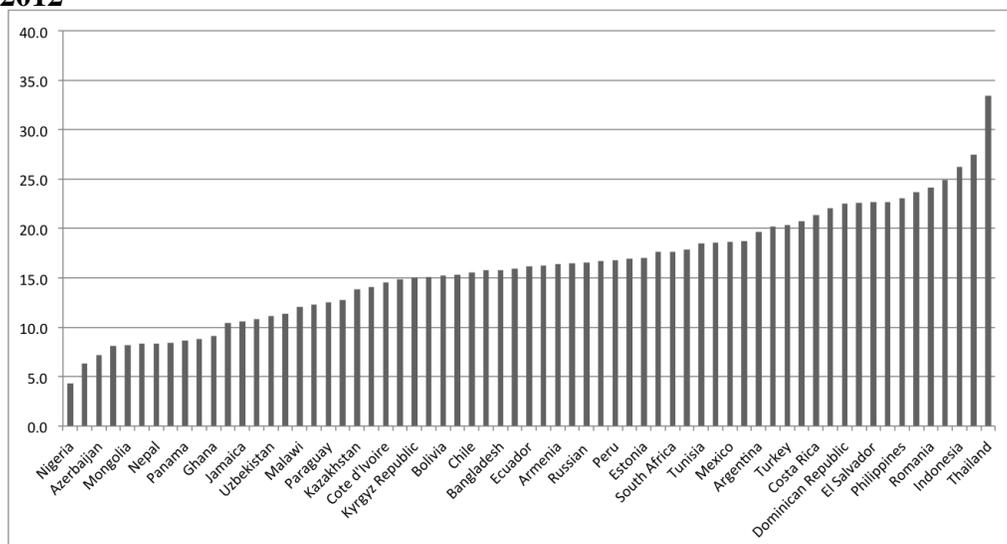
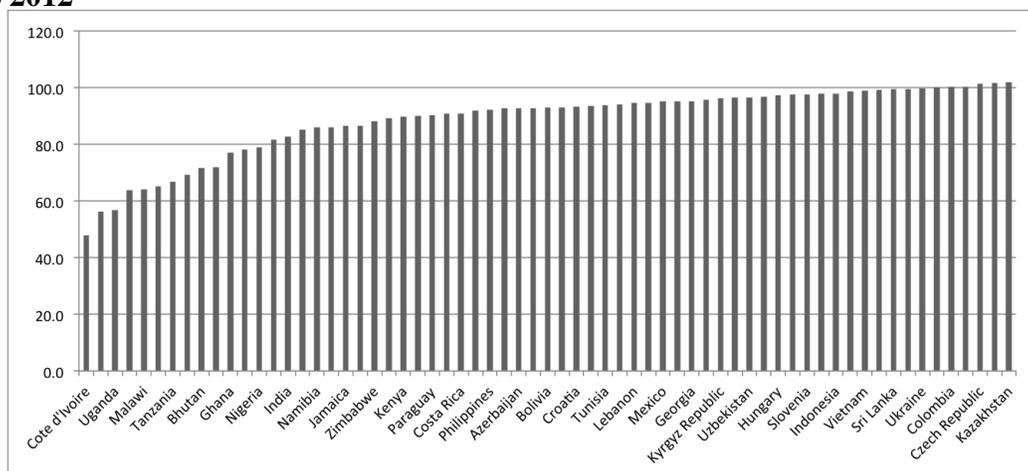


Figure 2.5: The Averages of Manufacturing (as a per cent of GDP) Across Countries from 1995 to 2012



Following the level of manufacturing, the educational measure of the primary completion rate is the next independent variable analyzed. The averages are shown in figure 2.6. The country with the lowest level of completion is Côte d'Ivoire, with 47.9. Kazakhstan, on the other hand, has the highest rate of completion with 101.9 per cent¹⁴. The average across all countries is 88.6 per cent.

Figure 2.6: The Averages of the Primary Education Completion Rate Across Countries from 1995 to 2012



The fourth independent variable is the unemployment rate, which is shown in figure 2.7. The country with the lowest average unemployment rate during the 1995 to 2012 time frame is Thailand, with an average unemployment rate of 1.6 per cent. Macedonia has the highest unemployment rate during this period, with a rate of 33.7 per cent. The average rate across the sample is 9.2 per cent.

Finally, the last independent variable used in this analysis is the market capitalization rate, shown in figure 2.8. The average of this indicator ranges from 0.1 in Azerbaijan to 178.2 in South Africa¹⁵. The average for the sample is 27.4 per cent.

14. The primary education completion rate can be higher than 100 per cent if there are late entrants, children who have repeated one or more grades, or children who have entered school early.

15. The market capitalization can be greater than 100, or greater than the GDP of a country, if the combined size and liquidity of the market value is larger than that of the GDP. An example of the liquidity of the stock market is the value of shares traded as a per cent of GDP.

Figure 2.7: The Averages of the Unemployment Rate Across Countries from 1995 to 2012

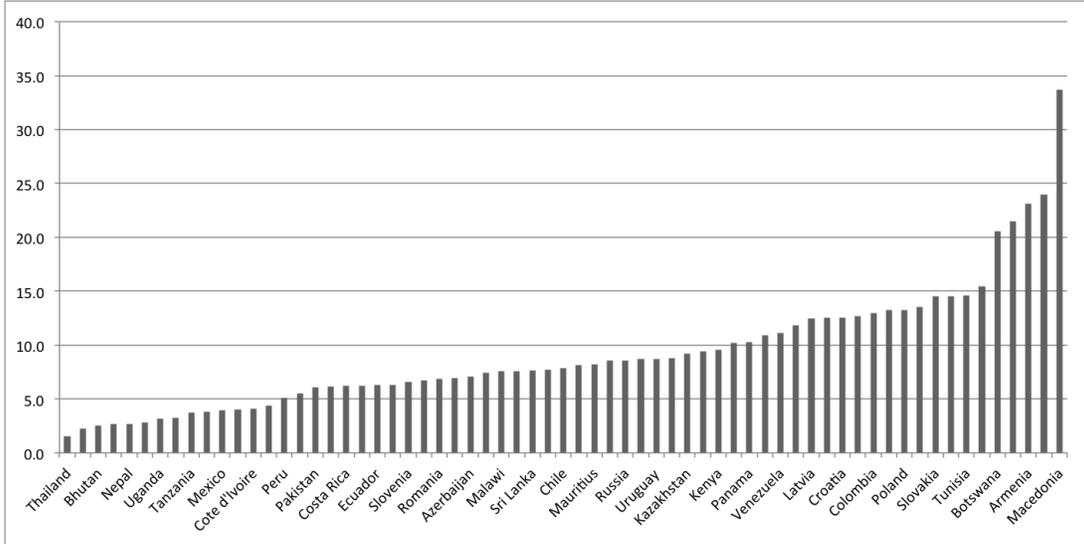
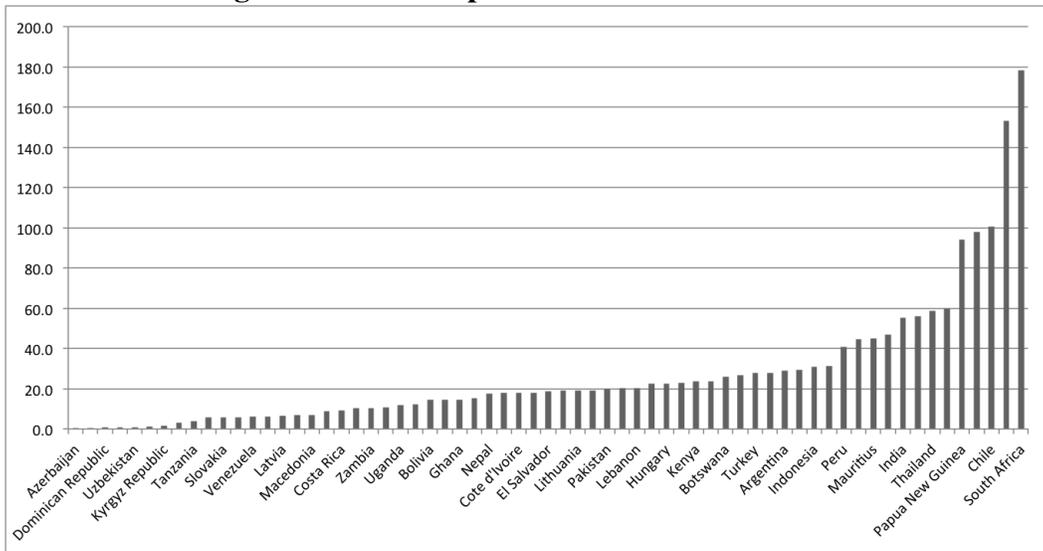


Figure 2.8: The Averages of Market Capitalization Across Countries from 1995 to 2012



The number of observations, mean, standard deviation, minimum, and maximum of these variables are shown in table 2.1.

Table 2.1: **Summary Statistics of Data**

Variable	Observations	Mean	Standard Deviation	Minimum	Maximim
Effnops	1,210	3.11	1.72	1.00	10.32
Export	1,274	35.61	18.68	0.34	115.11
Primary	527	82.80	21.89	17.57	111.73
Manufacture	1,183	14.63	6.43	0.69	35.06
Unemployment	1,300	9.51	7.00	0.34	36.42
Capital	700	31.13	36.32	0.19	234.09

2.4.5 Empirical Strategy

In this chapter, both a fixed effect (FE) regression and a random effect (RE) regression were run for the primary model. Only comments about the fixed effects model are made due to the empirical goals in this chapter. A FE model is used when interested in analyzing the effects of variables that vary over time because it takes out the country specific characteristics that do not vary over time in order to make an assessment of the net effect of each independent variable on the dependent variable. However, the results from the FE estimation and the RE estimation are largely comparable.

In order to correct for a potential endogeneity problem, the primary model is improved by using a lagged five-year moving average for the independent variables. In addition to the potential endogeneity, panel heteroskedasticity and autocorrelation are accounted for by using a panel-corrected standard error model. Finally, the model is run using the full sample and a democratic sample. Testing the model using a democratic sample is more credible, as it aligns more closely with the original literature corresponding to the advanced democracies. The specifics of the empirical strategy are outlined further in the results section.

2.5 Results

The primary model for this chapter is a FE model that regresses the effective number of parties on the five macroeconomic indicators selected for this study : exports, primary education completion rate, manufacturing, the unemployment rate, and the market capitalization. The fixed effect results for the primary model are shown in table 2.2, with column one showing the results using the full sample, and column two showing the results using the democratic sample. A country is considered democratic if it scores a six or higher on the Polity IV index. In 2012, 46 out of the 65 countries considered in this chapter scored a six or higher on the Polity IV index. When considering the time period 1995 to 2012, 52 countries scored a six or higher on the Polity IV index for at least one year. In order to take into consideration that the Polity IV score may change for a country in this sample,

and drastically at that, an average of the Polity IV index is taken for each country and a separate model is run using this score as the democracy benchmark. The results are shown in appendix A. As there are significant data constraints for this set of countries, these results should be seen as a first attempt to uncover if and how the economic structure of a transitioning country impacts their electoral rule system.

Table 2.2: **The determinants of the effective number of parties (FE model)**

	Effnops(1)	Effnops(2)
Exports	-0.032** (0.014)	-0.041*** (0.015)
Primary	0.041** (0.020)	0.047* (0.026)
Manufacture	0.085* (0.042)	0.061 (0.042)
Unemployment	0.039 (0.032)	0.003 (0.028)
Capital	0.002 (0.005)	-0.003 (0.007)
Constant	-0.903 (2.031)	-0.322 (2.597)
Observations	686	515
R-Squared	0.138	0.199

Table 2.2 shows the regression results for the fixed effects model. The *effnops* is the dependent variable, standing for the effective number of parties. The first column is from only the five macroeconomic independent variables, the second column adds *pr*, the third column adds *electionyear*, and the fourth column adds *overthrow*. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Exports is negative with five per cent level of significance in column one and a one per cent level of significance in column two.

The primary completion rate, *primary*, has a positive sign and is significant at a five per cent level in the first column and a ten per cent level in the second column. In coordinated economies, educational inequality should be minimized, and the amount of people with a primary education should be maximized. This finding aligns with the hypotheses made above.

Manufacture and *unemployment* are positive. *Manufacture* is significant at a ten per cent level when using the full sample, but not with the democratic sample. Due to the organizing quality of

coordinated economies, industrialization, for which manufacturing is a proxy, is facilitated. Industry requires a high level of organization and cooperation, and is thus will be stronger in economies with high levels of coordination. *Unemployment* is not significant in either model. *Capital* is positive in column one and negative in column two, but not significant.

It is argued that the economic structure influences the number of effective number of parties in a country, but one could instead consider that it is the type of electoral system that impacts the economy. To account for the potential endogeneity issue, five-year lags for the macroeconomic indicators are used to evaluate the effect of the economic structure on the proportionality of the electoral system.

A five-year lag allows enough time to see the impact of the economy on the proportionality of the electoral system, but is still short enough that it does not damage the integrity of the 18 year time frame of the study.

After accounting for a potential endogeneity problem, another issue arises. The independent variables change from year to year, for example, *unemployment* can increase or decrease by a significant percentage one year to the next. However, the effective number of parties stays stationary until the next election for each country. This means that a stationary dependent variable is often being regressed on the independent variables changing annually. To account for this, moving averages, created for each independent variable, are used. To be consistent with the previous analysis, a five-year lagged moving average is used. For example, if one considers the variable unemployment at time t , the moving average associated with it is composed of the average of unemployment of the previous five years, $t-1$, $t-2$, $t-3$, $t-4$, and $t-5$.

With panel data, it is often advised to work under ‘panel error assumptions’, notably that panel data is subject to panel heteroskedasticity and autocorrelation. Following the suggestion of Beck and Katz (1995), a model using panel-corrected standard errors (PCSE) corrects for these issues. The PCSE model is shown in table C.3 for the full sample, and table C.4 for the democratic sample.

The PCSE model is more appropriate for this study, as it corrects for any potential autocorrelation and heteroskedasticity.

In table C.3, column one contains the five macroeconomic independent variables, column two adds the dummy variable *PR*, which indicates if a country has a proportional representation system, column three adds the dummy variable *electionyear*, which indicates if the year in question in the times series was an election year, and finally column four adds the dummy variable *overthrow*, which indicates if the year in question in the time series experienced a non-democratic change of leadership. This manner of structuring the regression is used for the remainder of this chapter.

In the PCSE model using the full sample, *exports* is negative and significant at a one per cent level for columns one and four, and five per cent level for columns two and three. The primary completion rate is, contrary to expectations, negative in second to fourth columns. Notably, it is not significant. *Manufacture* is positive and significant at a one per cent level across the columns. *Unemployment* is positive in the first three columns and negative in the last column, but not significant. *Capital* is positive across the columns, but it is not significant in model two. The proportional representation dummy variable is positive, but not significant. The variable *electionyear* is negative, but not significant. *Overthrow* is positive, which goes against the original prediction made in this chapter, and significant at a one per cent level.

The democratic sample, shown in table C.4, tells a slightly different picture from the full sample. The variable *exports* is negative and significant at a five per cent level across the columns. *Primary* is now positive, as predicted, and significant at a one per cent level for the first specification run, and a five per cent level for the following ones. *Manufacture* is also positive and significant at a one per cent level for all columns. *Unemployment* is negative, but only significant in column four. *Capital* is negative, as predicted, and significant at a ten per cent level across all regressions run under this model with the democratic sample except for in column four.

The variable *overthrow* is positive and at one per cent level in the last specification. The sign of

Table 2.3: **The determinants of the effective number of parties (PCSE model, full sample)**

	Effnops (1)	Effnops (2)	Effnops (3)	Effnops(4)
Exports	-0.024*** (0.009)	-0.021** (0.009)	-0.021** (0.009)	-0.021*** (0.008)
Primary	0.004 (0.014)	-0.001 (0.016)	-0.002 (0.016)	-0.008 (0.015)
Manufacture	0.111*** (0.026)	0.103*** (0.027)	0.103*** (0.027)	0.099*** (0.025)
Unemployment	0.004 (0.020)	0.005 (0.019)	0.007 (0.020)	-0.011 (0.019)
Capital	0.001 (0.009)	0.000 (0.009)	0.000 (0.009)	0.003 (0.009)
PR		0.449 (0.362)	0.456 (0.359)	0.568 (0.348)
Electionyear			-0.018 (0.054)	-0.111 (0.074)
Overthrow				0.023*** (0.009)
Constant	2.165* (1.150)	2.348** (1.133)	2.383** (1.128)	2.997*** (1.138)
Observations	293	288	288	287
R-Squared	0.3612	0.3804	0.3806	0.3852

Table C.3 shows the regression results for PCSE model using the full sample. The *effnops* is the dependent variable, standing for the effective number of parties. The first column is from only the five macroeconomic independent variables, the second column adds *pr*, the third column adds *electionyear*, and the fourth column adds *overthrow*. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

this variable is the opposite of what was predicted. It could be that the non-democratic change in leadership is coming from a popular democracy movement in order to change an authoritarian ruler. This motivates strong support from a variety of different parties and classes in the country. Thus, if the year in question is a year of a successful popular revolution, it could end up being more proportional. The variable *electionyear* is negative and significant in column four at a ten per cent level. It was predicted that if a year happened to be an election year, there should be no effect on the proportionality of the electoral system.

It is notable that *PR* is not significant in this regression, as a proportional representation electoral rule system should indeed be more proportional. Using a feasible generalized least squares (FGLS) regression, shown as a robust check for the democratic sample in appendix A, the *PR* variable

Table 2.4: The determinants of the effective number of parties (PCSE model, democratic sample)

	Effnops (1)	Effnops (2)	Effnops (3)	Effnops(4)
Exports	-0.021** (0.008)	-0.019** (0.008)	-0.019** (0.008)	-0.019** (0.008)
Primary	0.038*** (0.014)	0.034** (0.016)	0.034** (0.016)	0.033** (0.016)
Manufacture	0.081*** (0.029)	0.079*** (0.026)	0.080*** (0.026)	0.075*** (0.026)
Unemployment	-0.030 (0.022)	-0.026 (0.019)	-0.028 (0.021)	-0.054*** (0.020)
Capital	-0.014* (0.008)	-0.014* (0.008)	-0.014* (0.008)	-0.013 (0.008)
PR		0.319 (0.379)	0.294 (0.389)	0.360 (0.379)
Electionyear			0.014 (0.051)	-0.114* (0.069)
Overthrow				0.026*** (0.008)
Constant	-0.039 (1.350)	0.046 (1.194)	0.036 (1.209)	0.386 (1.156)
Observations	244	242	242	241
R-Squared	0.4636	0.4848	0.4852	0.5011

Table C.4 shows the regression results for the PCSE model using the democratic sub-sample. The *effnops* is the dependent variable, standing for the effective number of parties. The first column is from only the five macroeconomic independent variables, the second column adds *pr*, the third column adds *electionyear*, and the fourth column adds *overthrow*. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

becomes significant. However, it is not advised to use the FGLS model in cases where $N > t$, or in cases where the number of panels is larger than the number of time series. The FGLS models should be therefore interpreted with caution.

From this set of regressions it is shown that in democracies *exports* is negative and significant. This result is similar to the findings from the models run with the full sample. This chapter considered that the sign of *exports* might be reversed to what is expected by the traditional theory due to the composition of exported goods from developing countries. The data do not indicate what type of goods are being exported, but the findings do suggest that, whatever they may be, the mechanism at work is different to that of advanced democracies. The idea put forth after this finding is that many developing countries tend to rely on commodity based exports. The extraction or production

of such goods does not require a high level of skills or an advanced organized economic structure.

From the models using the democratic sample it is shown that the primary completion rate and manufacturing strength of an economy positively influence the proportionality of the electoral rule system. This finding complements the predictions made in this chapter, as more coordinated economic systems should have a lower level of educational inequality, and thus actively promote basic education to all citizens, a need for a basic minimum level of education on which specific skills can be built, and economic activities that thrive from organization and cooperation, like the manufacturing sector.

Notably, *primary* was not significant in the full sample, which included non-democratic transitioning countries. This finding may emerge because democracies typically have stronger and more inclusive institutions, which are able to translate equipped citizens into productive sectors. *Manufacture* still remained relevant in the full sample, indicated that it is indeed an important component for improving the proportionality of the electoral system across economies in general.

From the democratic sample, the next key indicators that successfully explain proportionality in the electoral system are the unemployment rate and the capitalization of the market. The finding that unemployment is negative comes from the theory that coordinated economies tend to have lower levels of unemployment. This tendency found in CMEs positively influences electoral rule proportionality. The variable capital also has a negative relation to the effective number of parties, or proportionality of the electoral rule system. The negative relation comes from the idea that economies that do not rely on the market to coordinate activities tend to have a weaker reliance on market capitalization, and instead they use a more bank-based approach when attempting to gain access to finance.

Comparing the results from the full sample, where *unemployment* and *capital* are not significant, to the results from the democratic sample, noted above, these variables corresponding to coordinated economies are evidently stronger in democracies. This finding makes sense, since democracies

tend to be more capitalistic than non-democracies (for example, autocracies or dictatorships where an elite controls the market), and also because democracies tend to have more powerful institutions, which, in and of itself means economic and political institutions will be stronger, and also that a linkage is enabled between the economy and political sphere.

2.6 Conclusion

This chapter attempts to disaggregate coordination in the economy into simple macroeconomic indicators. In turn, these variables representing the economic coordination in a country are used to test if more coordinated economies lead to PR electoral rules. This chapter does not suggest that the exact same mechanism found historically in the CMEs and LMEs of advanced democracies is at work in developing countries, only that patterns in countries emerge and certain underlying characteristics of an economy tend to encourage different electoral rule systems.

This chapter shows how economic structure can determine whether a country is of the more coordinated or of the more liberal type of economic system. The findings show that CMEs, characterized by skilled production, widespread primary education, lower levels of unemployment, and lower levels of capitalization tend to produce more proportional electoral systems. Using the effective number of parties as a proxy for electoral systems, this chapter claims that during a political transition, more coordinated economies tend to produce proportional representation electoral systems.

On the other hand, liberal economies with weak coordinating structures tend to support majoritarian electoral rule systems. These liberal economies have higher levels of education inequality, leading to a smaller population that can be equipped with specific skills, little cooperation between the firm and the worker, and moreover do not require that the employee gain a high level of specified skill in order to work for the commodity firm.

The results noted above were stronger in the democratic sample, although there was some weak support for the theories presented by this chapter for the full sample. Democracies tend to support

more functional and more inclusive institutions, both economic and political. It then makes sense that coordinated countries with stronger institutions will see effects of their economic institutions in other sectors of the government, like the political institution electoral rules. Also, democratic countries are more likely to be capitalist economies. As the original theory of varieties of capitalism is based off capitalist economies, it follows that in these types of countries, the mechanism linking coordinated economies and proportional representation will be stronger.

Although the concept of institutional complementarities was mentioned only briefly in this chapter, it remains a key concept for the VoC literature. The results from the democratic sample show that a variety of institutional factors are at play in influencing the proportionality of the electoral rule system. These different variables work as a specific institutional configuration in order to create a more proportional electoral rule system in the case of a coordinated economy, and a two-party electoral rule system model in the case of a liberal economy. Despite being outside the scope of this chapter, it would be interesting to discover if interactions between different institutions are occurring in this sample of countries.

Chapter 3

The Co-Evolution of Economic and Political Institutions in Developing Countries

3.1 Introduction

In the political economic literature, the origins of the welfare state, distribution, and redistribution in the developing world are often attributed to the level of democracy of the country (Rudra and Haggard, 2005) or the colonial heritage of a nation (Gough, 2001), minimizing the importance of the economic structure. However, economic organization in advanced democracies is recognized as a source of welfare state strength, the level of distribution and redistribution, and the resulting levels of inequality and poverty (Esping-Andersen, 1990; Iversen and Soskice, 2009).

Findings from studies on advanced democracies conclude that coordinated economies, or economies with a heavy emphasis on non-market coordination in the labour market, have a tendency to develop proportional representation electoral rules (Cusack, Iversen, and Soskice, 2007, 2010). After the adoption of a certain electoral system, there is a co-evolution of economic and political institutions. The link between economic and political institutions becomes entangled due to the complementarities within each set of institutions, and the gap between the coordinated economies and liberal economies widens. The countries that started off with coordinated economies and then subsequently adopted PR follow along a path to develop strong welfare states with higher levels of distribution and redistribution, resulting in lower levels of inequality and poverty. In a similar fashion, the liberal economies, which typically adopt majoritarian electoral rule systems, tend to produce states with weaker welfare systems that generate lower levels of distribution and redistribution, leading to higher levels of inequality and potentially poverty.

Certain aspects of this theory are supported in a broader range of countries, as Persson and Tabellini (2003) found that countries with majoritarian electoral rules have lower levels of welfare spending compared to those countries with PR electoral rules.

Further, chapter two found that the connection between economic coordination and PR systems in developed countries extends to developing countries and transitioning countries. Macroeconomic indicators that represent the level of economic coordination showed that in these transitioning countries, higher levels of coordination tended to produce more proportionally representative electoral systems. Due to these findings and because of the previously mentioned robust results for advanced democracies, it is predicted that the institutional development of developing countries will follow the general path and patterns of advanced democracies.

This chapter examines whether, like in the advanced democracies, there exists a co-evolution of economic and political institutions in the developing world such that coordinated market economies produce more generous welfare states with higher levels of government spending, and therefore more equal states with lower poverty levels. Conversely, the developing economies deemed to be more of the liberal market economies type should produce less generous welfare states with lower levels of spending, resulting in higher inequalities and poverty levels. To accomplish this, labour market variables are used to measure labour market coordination in developing countries. The labour market variables used in this chapter are social dialogue, vocational training, contract protection for employees, and union freedoms and plurality.

After using these variables to help classify coordination, three hypotheses are considered. First, it is expected that countries considered as coordinated economies due to their labour market institutions produce strong welfare states with high levels of government spending on health. Second, this chapter predicts that coordinated economies produce societies with lower levels of inequality. Third, it is expected that CMEs have lower levels of poverty.

The findings from this analysis indicate that there is strong evidence for the first two hypotheses

with respect to one labour market variable, social dialogue. The effectiveness of social dialogue is associated with more generous welfare states and lower levels of income inequalities. There is some support that vocational training and employer contract protection also share similar effects. This chapter also shows that the fact of being a democracy improves the welfare state and welfare state outcomes.

The varieties of capitalism approach used in this chapter considers that the variation of strategic coordination is the primary factor causing the difference in welfare state generosity seen across developed countries. However, other explanations have been put forth to explain variation in the welfare state in developed countries. In order to broaden the focus in this chapter, elements of power resource theory (PRT) are included in the analysis.

PRT states that welfare variation can be seen due to different combinations of power and strength held by the capitalist class versus the working class. In PRT, conflicts between economic classes stemming from the power base in society can impact the institutions of a country. Thus, this chapter includes a strike variable to capture industrial conflict between the capitalist and working class, as a strike movement is a cohesive effort by the working class to improve their power position in society. As strikes occur, the workers should be tapping into a greater source of power, therefore PRT predicts that societal conflict should improve the welfare state. The working class, who are more susceptible to risk than the capitalist class¹, promotes the welfare state as it provides protection against life risk.

The findings from this chapter show that the chosen proxy for social conflict, strikes, is positively related to income inequalities, and in some cases has a negative relation to the welfare state. These findings do not support the idea of welfare state variation put forth by PRT.

It is important to note that while unions are a key factor in the coordination story, noted briefly above and in more detail below, unions also play a role in the PRT analysis of the welfare state.

1. The capitalist class has access to private insurance, while the working class cannot afford this insurance. Therefore, the working class promotes publicly provided insurance.

Unions provide a collective action solution that enables workers to act as a cohesive unit, which is a necessary step prior to strike action. Thus, unions have a dual role in accessing the variation in the welfare state, a role that will be further examined in this chapter.

The empirical analysis in this chapter potentially suffers from an endogeneity issue. This chapter argues that the economic system is affecting the welfare state and welfare state outcomes, but it is also possible that this relationship goes in the opposite direction. A generous welfare state (and low levels of inequalities and poverty) may affect the levels of economic coordination. For example, a more equal society may provide the space for fruitful social dialogue. A society with high levels of poverty might drive workers to express their grievances by striking. The potential for an endogenous relationship means that the results, although encouraging, should be interpreted with caution, as they may not indicate a direct causal link.

The structure of the chapter is as follows. First, the existing literature on welfare states, welfare outcomes, and the varieties of capitalism in developing countries is examined. Then, the three hypotheses mentioned above are fully covered with supplementary theoretical details. Next, the data used in the analysis are explained and following this, the cross-section regressions are completed. Finally, the results and interpretations from the empirical work are given and the conclusion provides the final remarks.

3.2 Literature Review

Although the bulk of the work concerning the fields of the welfare state, government spending, and the outcomes of these government policies, namely equality and poverty, is written on advanced democracies, there exists an extension of the literature to developing nations.

One of the first significant movements toward the investigation of welfare states in developed countries began with the work by Esping-Andersen (1990) and the *Three Worlds of Welfare Capitalism*. To extend this theory to developing countries, Gough (2001) evaluates the paradigm by Esping-

Andersen (1990), and points out fourteen key differences between developed and developing countries. These differences fall into the broader categories of international factors, the socio-economic environment, political mobilization, state institutions, social policies, and welfare outcomes. The work by Gough (2001) recognizes that in order to advance on the welfare literature, the differences between advanced democracies and developing countries must be considered.

Rudra and Haggard (2005) continue with this literature by separating the developing states in democratic and authoritarian countries. They show that democracies in developing countries spend more than autocracies. Even in the face of globalization, a phenomenon facing all open economies at this time, democratic nations are still more generous than authoritarian regimes when it comes to social spending. In fact, as the economy of a nation becomes more open, the protection provided to citizens by governments of the developing nations becomes more secure. These results motivate the idea in this chapter that an increase in spending should coincide with the more democratic nations.

Huber, Mustillo, and Stephens (2008) also evaluate government spending and the welfare state in Latin America, a region home to many of the countries in the sample used in this chapter. As early as the 1970s, Latin America was composed of countries with social policy regimes comparable to those of the advanced democracies. The majority of Latin American countries have faced economic, social, and political volatility since this time, and the range of social security coverage in the region is large. Regardless of these obstacles, this work shows that the cumulative experience of democratic rule impacts the levels of social expenditures. Huber, et al. (2008) find that democracy matters for the level of government spending and the strength of the welfare state, thus recognizing the importance of democracy for the welfare state. The work by Rudra and Haggard (2005) and then Huber et al. (2008) remark on the level of democracy and its impact on the welfare state and government spending, but they make no mention about the differences between CMEs and LMEs, or any other categorical phenomenon, in developing countries.

After recognizing the divide between welfare states in democratic developing countries and those

in authoritarian developing countries, Rudra (2007) continues the work of welfare states in developing countries by stating that in the majority of the literature today, developing nations are grouped into one cluster of ‘least developed states’, while advanced nations are clustered into separate theoretical categories, like CMEs and LMEs. Rudra builds off of the ideas presented by Esping-Andersen (1990) by attempting to cluster developing countries into clear-cut welfare regime typologies.

In a similar study, Gough (2013) finds eight welfare clusters within 65 non-OECD countries defined by the levels of welfare generosity, revealing the complexity and variety of government support in developing countries. The paper by Gough (2013) also highlights how advanced democracies and emerging democracies or developing countries differ in their social policy environment. When analyzing developing countries, one must consider international and supra-national actors like the International Monetary Fund, the World Bank, hegemonic countries like the United States, and Non-Governmental Organizations, and how these different organizations can affect the welfare state in developing countries.

The point has been reached where it is recognized that the welfare state, distribution, and redistribution exists in developing countries, and that the government policies directing these political features differ between democracies and non-democracies. Moreover, it has been shown that developing countries fall into certain welfare state clusters due to their levels of economic coordination. However, it remains undiscovered if the economic coordination of a developing country can impact the generosity of the welfare state, the level of government spending, and the outcomes of these governmental policies, such as inequalities and poverty.

3.3 Hypotheses and Theory

The hypotheses tested in this chapter attempt to discover the effect of a coordinated economy on the welfare state and government spending, and in extension how these policies affect the level

of inequalities and poverty within a sample of developing countries. These three hypotheses are taken from the literature on advanced democracies, and extended to the countries in this chapter. In this way it is assumed, until proven otherwise, that the theories created and tested in advanced democracies can be applied to developing countries, whether they are democratic or not.

Hall and Gingerich (2009) use a varieties of capitalism approach to show how the state of economic coordination depends on the available institutions that can support it. The nature of coordination, which is a key factor in political economics, ranges along a spectrum starting with coordinated market economies and extending to the other end point, liberal market economies. Hall and Gingerich (2009) find that countries that tend toward CMEs have complementary institutional capacities in labour relations that support strategic non-market coordination and that LMEs make use of the market to coordinate their economic activities. Throughout the rest of this chapter, economies coordinated mainly through strategic means will be called coordinated economies, and economies that primarily use the market to coordinate will be called liberal economies.

Institutional complementarities, when jointly present, reinforce one another and improve the function and stability of specific institutional configurations (Amable, 2016). An initial proposition in Hall and Soskice (2001) states these complementary institutions are woven into the fabric of the political economic sphere. This translates into the idea that reform into one sphere of the political economy can positively affect, in the case of a complementarity, other political economic spheres within a nation.

Iversen and Soskice (2009) also emphasize complementarities between economic, political, and social institutions. They state there is a tendency for economic coordination to couple with proportional representation, and further that this institutional coupling tends toward higher redistribution in the country. Iversen and Soskice (2009) show that redistribution is negatively related to labour market inequality. Institutions that encouraged higher levels of wage distribution equality co-evolve with institutions that encouraged redistribution. The reason provided is centered on specific assets in the economy and labour market. In CMEs, employees need protection, including wage, employ-

ment, and unemployment protection, in order to have incentives to invest in specific skills, which in turn are required by the firms in order to produce their products. Voters, recognizing the need for specific skills in the labour market, then vote for higher replacement rates which leads to actual higher levels of spending and redistribution.

The coordinated economy structure comprises collective and coordinated wage bargaining, and this ability to bargain amongst economic agents leads to more egalitarian outcomes. The support of unions is embedded in this mechanism because unions provide a credible threat to firms and give weight to the side of the employee in the bargaining process.

Iversen and Soskice (2009) continue by linking the electoral system in with the economic and political institutions complementarities. They state the electoral system is correlated with the educational attainment of low income groups, and that left government spending focuses more on education, therefore disproportionately benefiting the poor. Iversen and Soskice (2009) provide reasoning as to why PR electoral systems tend to develop left-center coalitions, while majoritarian electoral systems tend to develop center-right coalitions.

These remarks are a follow up from previous studies (Iversen and Soskice, 2006) centered on how the electoral formula impacts coalition behaviour, which leads to a divergence of partisan composition in governments. These systematic composition differences lead to different distributive outcomes. The two-party, majoritarian system has the tendency to form a center-right coalition, which is more likely to win total government power and redistribute less. This is because the median voter in the economy faces low taxes if the center-right coalition deviates further right, but high taxes and redistribution away from the median to the lower income groups in the population if a center-left coalition was elected, but then deviates to the left.

This differs from the multiparty, PR system, where there is a tendency for the center party to join with the left side because together they can gain from the exploitation of the rich, right party. In the case of majoritarian governments, there is no assurance that the parties will commit to the platform

they set out during the elections, but in PR systems, commitment is not an issue since parties represent specific groups. Since these groups constitute a party during the elections, voters can infer which coalition will be in power and, by extension what policies will be adopted after the elections. Overall the idea set forth by Iversen and Soskice (2006) is that electoral systems explain partisan composition of the government, and this composition in turn explains the level of redistribution. Empirical findings suggesting that PR has a positive impact on redistribution confirm their hypotheses that electoral systems affect partisanship, and partisanship affects redistribution outcomes. Therefore, one can expect to see a tendency of CMEs to co-evolve with PR electoral rules and, overtime, decrease (or maintain low levels of) inequality.

Thus, it is shown how economic coordination within a country is reliant on complementary institutions, namely labour relations. After recognizing that institutional complementarities exist, the analysis is then deepened by considering the linkages between the economic institutions of CMEs, with a coordinated economy and coinciding coordinated labour institutions, and the political institutions of electoral rules, those largely being PR rules in the case of CME countries. These complementary institutions, which co-evolve and strengthen over time, lead to different economic and political outcomes, namely the strength of the welfare state, the distributive mechanism, and the levels of inequality and poverty.

The seminal work of Esping-Andersen (1990) defined separate welfare state tendencies in advanced democracies based on the economic and political institutions that were based in the respective country. These categories include the liberal welfare state, the corporatist welfare state, and the social democratic welfare state. The liberal welfare capitalist states include nations with little to modest universal transfers or social insurance plans. The liberal welfare state encourages the market to provide welfare coverage to its clients. An example of the liberal welfare state is the United States. The corporatist welfare state, the category where Germany was placed, consists of mandatory social insurance that includes important entitlements, but depends largely on contributions into the system, making the welfare one receives dependent on their employment. The final wel-

fare state category is the social democratic welfare state, of which Sweden is a typical example. This type of system offers basic protection to all citizens, regardless of their employment. These three systems correspond to three different clusters of advanced democracies, although the latter two systems both correspond to middle-class interests, while the liberal system often favours the political elite. Moreover, both the corporatist and social democratic welfare state evolved in more coordinated economies. The liberal welfare state can typically be found in the liberal market economies (Swank, 2005).

By combining the theories presented above, three hypotheses emerge for this study. First, it is predicted that coordinated economies should have a more effective welfare state, which includes higher levels of government spending (Esping-Andersen, 1990; Iversen and Soskice, 2009, 2011). Government spending works as a distribution and redistribution mechanism in the economy. Higher levels of government spending indicate that taxes are being collected and then used to provide services and safety nets for a broad section of society. More generous spending coincides with a strong welfare state because this typically translates into a larger portion of the citizens of a nation being supported and protected.

Pending the truth behind hypothesis one, that coordinated economies have a more effective welfare state and higher levels of government spending, it then follows that welfare outcomes in coordinated nations will be more favourable to the general population.

Hypothesis two states that in coordinated states, there should be lower levels of inequality (Iversen and Soskice, 2009, 2011). Due to government spending that entails the distribution and redistribution mechanism, the spread of wealth across citizens should shrink. This leads to a more equal society.

In addition to having less inequality, hypothesis three states that coordinated nations should also have lower poverty levels than liberal economies. Increased government spending and a more effective welfare state should translate into fewer households and individuals suffering from poverty.

It is important to note that the institutional explanations put forth by scholars of the varieties of capitalism literature does not go un-criticized. Power resource theory also addresses the fact that across advanced democracies there is a wide variation the welfare state, specifically in its coverage and generosity. While VoC scholars use a firm-centric approach to consider institutions in these economies and their effect on the welfare state, as this chapter has previously discussed, PRT scholars criticize this approach by stating the VoC correlation found in CMEs between investment in specific skills and the welfare state is misleading because this implies that employers have first order preferences for the expansion of the welfare state. Instead of a first order preference for the welfare state, meaning that the employers have a proactive role in creating a welfare state or generating a stronger welfare state, PRT suggests that employers are merely consenting actors regarding the welfare state. Thus, employers will consent to the welfare state as a second (or lower) order preference in order to meet their various agendas (Korpi, 2006).

Proponents of PRT suggest that institutions do not hold an independent explanation as to why welfare states vary (Rothstein, Samanni, and Teorell, 2012; Korpi, 2001). Instead, PRT states that the variation is caused by class-related distributional conflict and partisan politics. In the end, a welfare state will be stronger if the labour or working class has more political or economical resources. Notably, PRT focuses on the idea of power resources, or who has power, not the use of power (Korpi, 1985). The power perspective of institutionalism theory develops the idea that institutional outcomes arise from conflict of interest among actors with different endowments of power (Korpi, 2001).

Unions enter as an important factor in the theory of power resources. Unions act as a collective action solution bringing together employees in the working class. The role of unions as an organizing unit enables strikes to be effective, which can shift the distribution of power between capitalists and workers. While strikes represent the industrial conflict aspect of PRT, and in doing so predict that strikes should lead to more power resources for the working class, and thus a more generous welfare state, the unions are the *a priori* condition for these strikes. Because of this, it is hard to

disentangle the union variable used in this analysis, as it features in both VoC and PRT explanations as to why welfare states vary across countries. This point will be further considered during the analysis of this chapter.

However, as the debate remains in the comparative capitalism literature as to why welfare states vary, this chapter empirically addresses the power and conflict factor presented by PRT, in addition to the institutional focus used by the VOC proponents, by considering strikes as a proxy of social conflict, explained below in the data section.

3.4 Data and Empirical Approach

3.4.1 Dependent Variables

Different dependent variables are required to define each hypothesis. Table 3.1 shows the summary statistics for the variables.

Table 3.1: Summary Statistics for the Dependent Variables

Variable	Observations	Mean	Standard Deviation	Min	Max
Welfare	87	5.172	1.901	1.000	9.500
Health	87	3.203	1.547	0.984	7.080
Gini	87	40.497	8.589	23.700	60.800
D9D1	86	7.583	3.473	3.134	22.181
Poverty	83	15.127	17.886	0.000	67.580

Welfare. The welfare state variable, *welfare*, is a composite variable measuring the welfare regime. It comes from the 2012 round of the Bertelsmann Stiftung Transformation Index (BTI). The BTI uses country and regional experts for each entity studied to provide reliable information that is used to construct the indices for each country. The welfare regime is comprised of an index measuring social safety nets and an index measuring the level of equal opportunity in a country.

Health. The amount of public health expenditure as a percentage of GDP is used as another mea-

sure to evaluate the generosity of the welfare system². The health expenditure data come from the 2012 round of the World Development Indicators by the World Bank.

Welfare and *health* are used to evaluate the first hypothesis.

Gini. The Gini coefficient, taken from the World Income Inequality Database (WIID), is used to measure inequality in a country. A score of zero represents perfect equality, whereas a score of one represents perfect inequality.³

The Gini coefficient faces some criticism in measuring inequalities because the indicator acts differently to income transfers between people in the polar ends of the income distribution and to the income transfers occurring in the middle section of the income distribution. This inconsistency can lead different income distributions to have the same Gini coefficient (Inequality Measurement, 2015). For this reason, an additional measurement is used to evaluate income inequalities.

A second variable used to measure the level of income inequalities within a country is a decile dispersion ratio, or an inter-decile ratio, called *D9D1* in this chapter. This ratio reflects the income, or income share, of the rich in a country as a multiple of that of the poor within a country (Inequality Measurement, 2015). The *D9D1* is a ratio of the top ten per cent of people with the highest income to the bottom ten per cent of people with the lowest income, or a ratio of those in the 90th income decile to those in the 10th decile. The data for the *D9D1* variable also come from the WIID⁴.

Poverty. This is the poverty gap at two dollars a day (PPP, expressed as a per cent)⁵. The poverty gap is the mean shortfall from the poverty line (counting the non-poor as having zero shortfall),

2. Originally this chapter included an overall government spending variable including health and education spending, but the education component was removed as it may overlap with the concept of the vocational training indicator, as governments often support vocational training programs.

3. The data from the WIID come from multiple sources in order to give the most complete information on the Gini coefficient. This means, however, that it is not feasible to state if the Gini is being derived from before or after tax income.

4. Like for the Gini coefficient it is not stated as to whether the income is pre or post taxes and transfers as this data also come from WIID.

5. The poverty gap is also used in chapter four. Due to a change in the definition by the World Bank, the poverty gap in chapter four is measured at 1.90\$ (US) per day, not 2.00\$ (US) per day as it is in chapter three. The data for chapter three were collected 03/12/2015.

expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence. This variable comes from the World Development Indicators by the World Bank for the year 2012.

Poverty is used to evaluate the third hypothesis in this study.

3.4.2 Independent Variables

The independent variables in this study are labour market indices used to measure various labour market characteristics. The five variables come from the 2012 round of the Institutional Profiles Database. Table 3.2 shows the summary statistics for the variables.

Table 3.2: Summary Statistics for the Independent Variables

Variable	Observations	Mean	Standard Deviation	Min	Max
Train	87	1.477	0.669	0.500	4.000
Contract	87	2.452	0.756	1.000	4.000
Social	87	1.981	0.707	0.330	4.000
Union	87	2.754	0.735	1.000	4.000
Strike	87	1.759	0.859	0.000	4.000

The IPD provides a thorough and original calculation of the institutional characteristics of a country using perception data collected by the country or regional Economic Services of the French Ministry for the Economy and Finance and the French Development Agency. In this chapter, five different labour market indicators, used as the independent variables, are taken from the IPD. The first four of these variables evaluate coordination on the labour market. The fifth variable, *strike*, is used as a measure of societal conflict in order to incorporate a broader view of comparative capitalism in to this analysis.

It should be noted that in a large number of the countries included in the sample for this chapter have significant informal employment positions. Because of the nature of the informal employment levels in many developing and transitioning countries, the independent variables may not work as mechanically as expected from the theory and following predictions.

Train. The *train* variable is a composite variable that measures the adaptation of the training supply to business needs, the share of the workforce benefiting from continuous vocational training, and how well the vocational training provision meets business needs in the labour market. Overall, *train* measures how strong and effective vocational training is in the economy, with a score of 0 meaning that an insignificant proportion of the population has vocational training and a score of 4 means that almost all of the population has training.

One of the main premises in the VoC literature is that firms interact with other economic actors to achieve a labour force with a suitable level of education and skills. Hall and Gingerich (2009) explain how the flexible labour market in liberal economies encourages workers to adopt general skills, as opposed to specific skills. The flexibility of the labour market and the additional feature of weak industry associations in LMEs translate into a limited capacity of the firms to promote training programs.

On the other hand, CMEs encourage vocational training in order to promote the adoption and investment of specific skills. Hall and Gingerich (2009) explain that firms, in association with trade unions and employers associations, provide training programs to ensure that the workers obtain the firm or industry-specific skills that are required by the firms.

Vocational training is a key component of the coordinated economic structure, and thus it is predicted that *train* will be positive for welfare and government spending and negative for inequality and poverty.

Contract. The *contract* variable measures the level of employment contract protection. More specifically, it is a composite variable that includes the share of permanent contracts across all types of employment contracts, employment contract protection with respect to individual dismissal, and employment contract protection with respect to redundancies, such as collective dismissal. The purpose of contract protection, a form of employment protection, is to reduce the risk of unemployment.

Contract protection increases employee protection on the labour market. High levels of protection tend to coincide with CMEs, while weak levels of employment protection tend to coincide with LMEs. Moreover, Estevez-Abe, Iversen, and Soskice (2001) present the argument that employment protection and production methods using skilled labour will be complementary features of a labour market because high levels of protection encourage workers to adopt and maintain the specific skills required by firms.

Employment contract protection is another feature of coordinated labour markets, and therefore it is predicted that *contract* will be positive for welfare and government spending and negative for inequality and poverty. A score of 0 means that there is no employment contract protection and a score of 4 means that there is complete employment contract protection in the labour market.

Social. The variable *social* measures the effectiveness of social dialogue on the labour market by considering the level of social dialogue effectiveness within companies, at the national level, and at the branch level. A score of 0 means that there is no effective dialogue and a score of 4 means very effective dialogue at all levels.

Hall and Soskice (2001) say CMEs are comprised of institutions that encourage cooperation and deliberation between actors. By deliberation they mean collective discussion and a channel for actors to reach agreements with one another. The effectiveness of social dialogue in this chapter is likened to the concept of deliberation.

This deliberation is cumulative, such that over time the conception of distributive justice between actors is built up and then eases agreements in following exchanges between actors. This process is found in CMEs.

In CME states, cooperation and deliberation are key features of the labour market, and thus it follows that there should be a high level of effective social dialogue within a coordinated labour market. Therefore, *social* is expected to have a positive sign with the welfare variable and government spending, and a negative sign with inequality and poverty.

Union. *Union* is constructed from two separate indicators. One measures the freedom to strike in the private and public sectors, the freedom of collective bargaining in companies, and the freedom of trade union operation in companies. This component of *union* can be interpreted as the level of freedoms that trade unions experience in a country. The second indicator used to compile the overall union variable is made up of the level of independence that unions enjoy in their country, as well as pluralistic nature of trade unions in practice. Together these two components are averaged to provide the overall level of union freedoms, independence, and pluralism in each country. A score of 0 represents a country with no freedoms or extremely weak freedoms, while a score of 4 represents fully free, autonomous, and pluralistic trade unions.

Hall and Soskice (2001) explain how CMEs require industrial relations institutions that provide solutions to problems that may arise between firms and their employees. The most notable institution of this kind is the labour union. CMEs generally host stronger labour unions, while in LMEs unions are less powerful. Cusack, et al. (2007) also identify unions as a major characteristic of coordinated economies by using the strength of unions as one of the key indicators of economic structure and organization. Therefore, free and independent unions should coincide with more coordinated economies.

Following this, Iversen and Soskice (2009) present the argument that coordinated economies with more coordinated labour markets tend to support higher levels of the welfare state and redistribution, thus union is predicted to be positive for the level of welfare state and government spending.

Beramendi and Cusack (2009) state that unions have an aversion to wage inequality, and that as the union movement strengthens this aversion also becomes stronger. If the union members are low-wage earners, the aversion to wage inequality is yet even more powerful. Berg (2015) states that this result was also found to occur in developing countries. For these reasons, union is predicted to be negative for the level of inequality and poverty.

These four aforementioned indicators suggest that higher scores coincide with a more coordinated

economy. However, it is important to note that a low score may indicate a liberal economy, but it may also indicate that the country in question has underdeveloped and weak institutions, notably since the sample deals with a large number of developing or transitional countries at varying stages of development. Because a liberal economic system does not necessarily indicate that an economy has underdeveloped institutions, only that their labour market institutions are coordinated by the market, this chapter will try to examine how strong labour market variable scores, which are characteristics of a coordinated economy, affect the dependent variables, instead of relying solely on the coordinated-liberal divide.

Strike. This variable measures the scale of strikes movements in a country over the past three years, with a score of 0 reflecting no strikes and 4 indicating widespread strikes. *Strike* is a composite variable that considers strikes by employees in both public and private companies.

In order to broaden the analysis outside of the VoC box, this empirical study features a variable typically considered by power resource theorists. The variable *strike* is used as a proxy for conflict over power distributions. In PRT, there is a straightforward connection between institutions and power in the emergence and change of institutions (Korpi, 1985). More simply put, conflicts between economic classes impact national institutions. The classes typically studied in this framework include the capitalist class, who has economic power, and the labour class, who has labour or human capital power. As the former type of power is more easily concentrated, it can be difficult for a mass labour movement to coordinate themselves to maintain or expand their benefits from social institutions, like the welfare state (Korpi, 2001). However, a strike is an example of a concentrated effort by the labour class used to better their position with respect to benefits of the welfare state. Therefore, strikes seen in the labour market should, according to PRT, lead to the emergence of a welfare state or a stronger welfare state.

As the *strike* variable measures strikes over the past three years, it is an adequate variable when attempting to study how recent social conflict affects the welfare state and welfare state outcomes. This is important because if strikes in the year of 2012, the year of this cross-sectional analysis,

were only taken in to account, there would not be an immediate effect on the welfare state and its outcomes, and it would not be a suitable variable for attempting to account for PRT analysis.

It must be noted that unions are a key feature in the PRT explanation, as well as in the VoC explanation, as to why there is welfare state variation amongst countries. Unions, in the view of power resource theorists, are the institutions that provide a solution to the collective action problem faced by workers. Unions enable workers to organize themselves to undertake industrial action, such as strikes. Thus, from the viewpoint of PRT, unions are integral to the power resources distribution, and therefore should have a positive relation to welfare state generosity, government spending levels, and thus inequality and poverty.

There is a risk of multicollinearity among these variables as all the independent variables are measuring aspects of the labour market. Table 3.3 shows the correlation matrix of the main independent variables used in this chapter. The results shown in table 3.3 indicate that there is a high correlation between *social* and *union*. In order to account for these potential worrisome results, a multicollinearity test was run after each regression used in this chapter. For all three hypotheses, the variance inflation factor, or VIF, ranged between 1.39 to 1.46 for the primary model, and was below 1.70 for all other regressions. These values are not indicative of a multicollinearity problem, and thus correlation between the independent variables is not worrisome for this chapter.

Table 3.3: Correlation matrix of independent variables

	Train	Contract	Social	Union	Strike
Train	1				
Contract	0.3043	1			
Social	0.2283	0.4098	1		
Union	0.1747	0.3233	0.6114	1	
Strike	-0.106	0.0896	0.3179	0.3186	1

The database is in cross-section format for the year 2012, and includes 87 countries⁶.

6. The sample used in this chapter was selected by cross-referencing the countries in the IPD with the countries found in the Bertelsmann Stiftung's Transformation Index (BTI), an index that includes only countries in either a democratic transition or consolidation process. All countries were included from the BTI if they had observations for the corresponding data from the IPD.

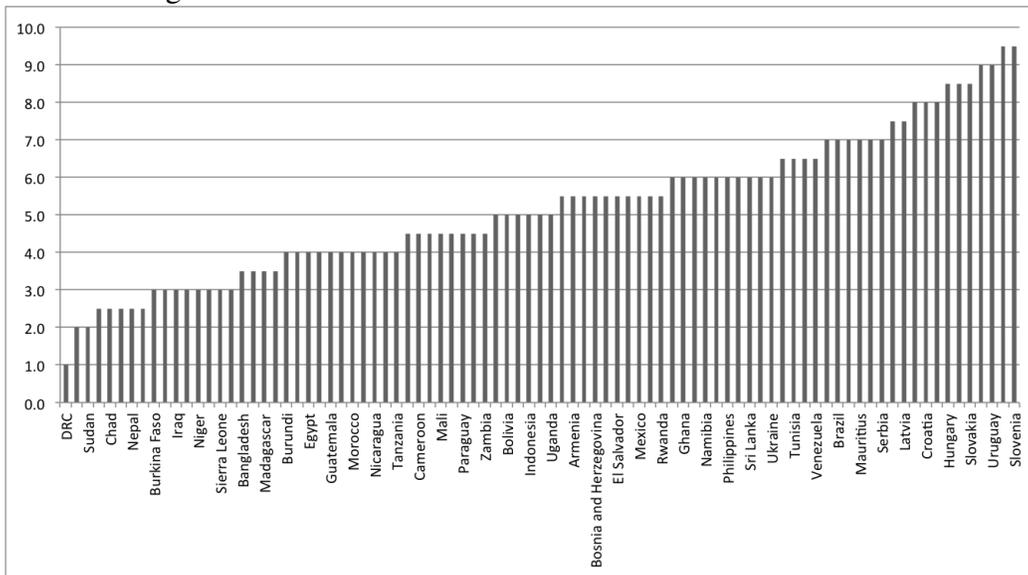
3.4.3 Descriptive Statistics

Chapter three performs a cross section analysis using five different dependent variables and five independent variables. Before beginning this analysis, the variables used in this study will first be analyzed using descriptive statistics.

The dependent variables used in this study are the welfare state variable, *welfare*, government spending on health as a percentage of GDP, *health*, the Gini coefficient and the D9D1 income ratio variables, *Gini* and *D9D1*, which measure inequalities within a country, and the poverty gap, *poverty*, used to measure poverty.

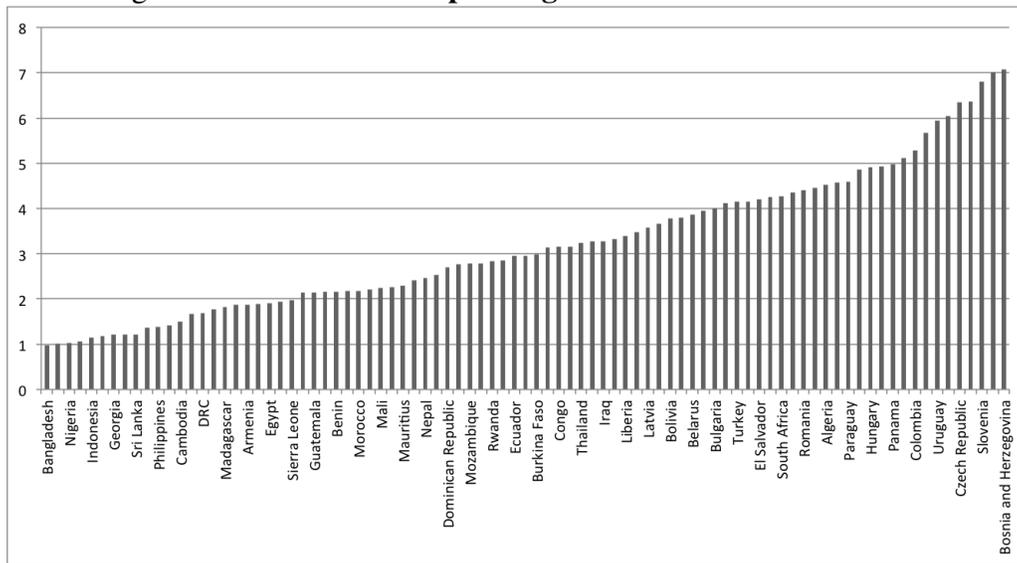
The welfare state indicator, shown in figure 3.1 is scored on a scale between one and ten, with the Democratic Republic of Congo having the lowest score of 1.0, and both the Czech Republic and Slovenia sharing the highest score of 9.5. The average score for the sample used in this chapter was 5.2.

Figure 3.1: The Welfare State Indicator Across Countries



Government spending on health, shown in figure 3.2, ranges from a low of 0.98 per cent in Bangladesh to a high of 7.08 in Bosnia and Herzegovina. The average level of government spending on health is 3.20 per cent of GDP for this sample.

Figure 3.2: Government Spending of Health Across Countries



The Gini coefficient, displayed in figure 3.3, is the first variable used to measure inequality in chapter three. A score of zero represents perfect equality, while a score of one represents perfect inequality. Slovakia has the lowest levels of inequality, according to the Gini coefficient, with a Gini coefficient of 23.7. The first five countries with the lowest levels of inequality all come from Central and Eastern Europe⁷. The country with the highest level of inequality, according to the Gini coefficient, is South Africa, with a Gini coefficient of 60.8. Following South Africa is Botswana, then Namibia, with a Gini coefficient of 60.6 and 59.7, respectively. All three of which are nations in Southern Africa. The average Gini coefficient across the sample used in chapter three is 40.5.

Figure 3.4 shows the D9D1 ratio is another means to measure inequality. The country with the lowest D9D1 score is Ukraine, with a score of 3.1. The highest score is 22.2, which belongs to South Africa. The average D9D1 is 7.6.

The last dependent variable, shown in figure 3.5, used in chapter three is the poverty gap, which measures poverty across the different countries in this chapter. Six countries have a poverty gap equal to zero⁸. These countries include Belarus, Croatia, Slovenia, Ukraine, Poland, and Bosnia

7. They are Slovakia, Ukraine, Slovenia, Czech Republic, and Kazakhstan.

8. This is not a missing value, but a poverty gap equal to 0.0.

Figure 3.3: The Gini Coefficient Across Countries

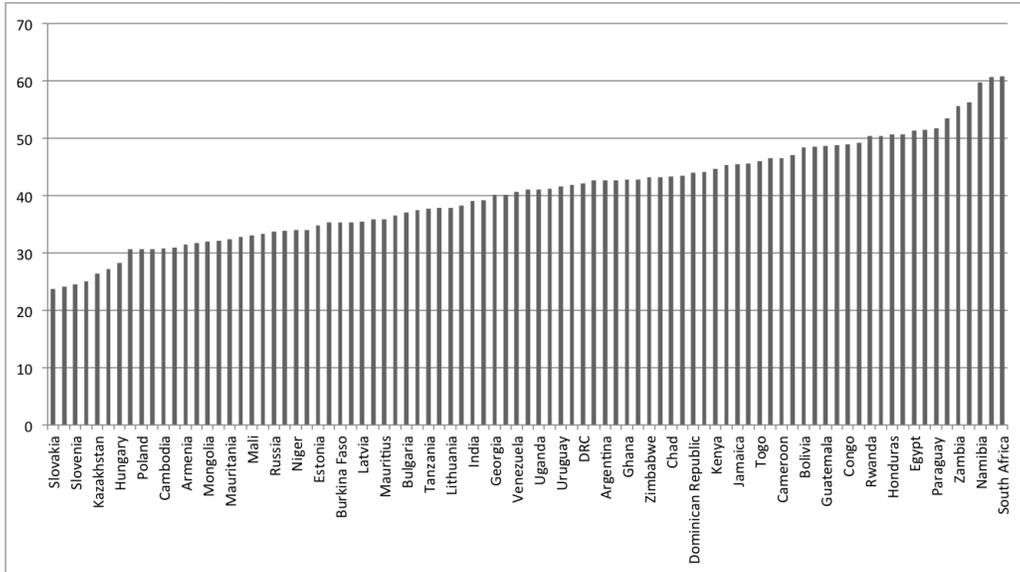
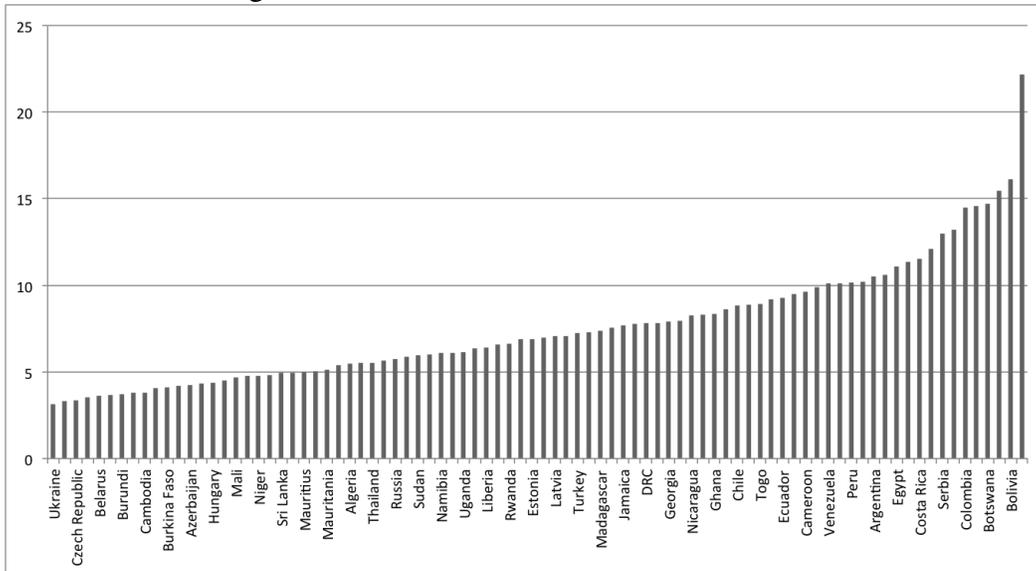
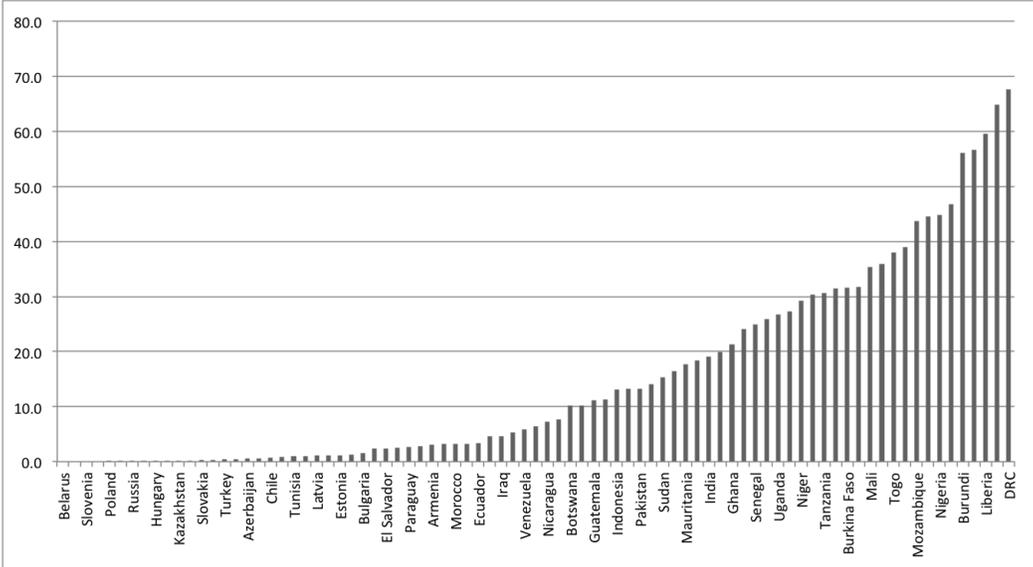


Figure 3.4: The D9D1 Ratio Across Countries



and Herzegovina. The highest poverty gap can be found in the Democratic Republic of Congo, with a poverty gap of 67.6. The poorest 15 countries, as measured by the poverty gap, can all be found in Sub-Saharan Africa. The average poverty gap for this sample is 15.1.

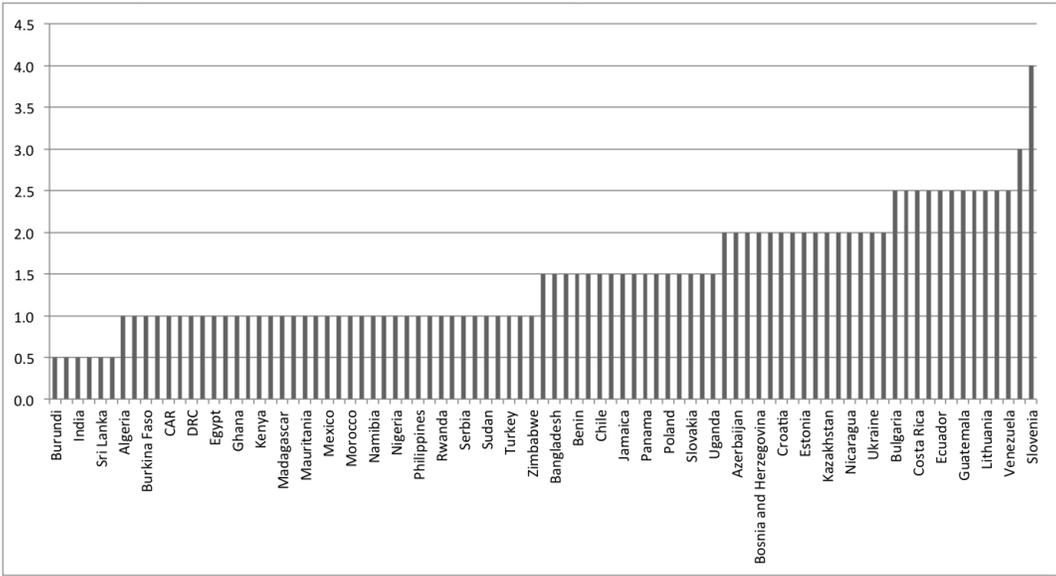
Figure 3.5: The Poverty Gap Across Countries



The next group of variables to analyze before commencing the regression analysis is the independent variables. The independent variables used include vocational training, or *train*, employee contract protection, or *contract*, the effectiveness of social dialogue, or *social*, a measurement of union freedoms, or *union*, and an indicator measuring the importance of strikes, or *strike*.

Vocational training, displayed in figure 3.6, ranges from a low of 0.5, found in Burundi, Côte d’Ivoire, India, South Africa, Sri Lanka, and Tanzania, to a high of 4.0, found in Slovenia. The average for vocational training across this sample is 1.5.

Figure 3.6: The Vocational Training Indicator Across Countries



Next, employee contract protection, shown in figure 3.7, ranges from a low of 1.0, found in Bangladesh, Liberia, Peru, Rwanda, Sierra Leone, and Zimbabwe, to a high of 4.0, found in Argentina, Ecuador, and Slovenia. The average for contract protection is 2.5.

Social dialogue, which is shown in figure 3.8, is the next variable considered. The Congo has the lowest score of social dialogue, with a score of 0.3, while Ghana and Slovenia share the highest score of social dialogue, with a score of 4.0. The average score for the effectiveness of social dialogue across the sample is 2.0.

The union variable, displayed in figure 3.9, is at its lowest for Belarus, which has a score of 1.0 and

Figure 3.7: The Employee Contract Protection Indicator Across Countries

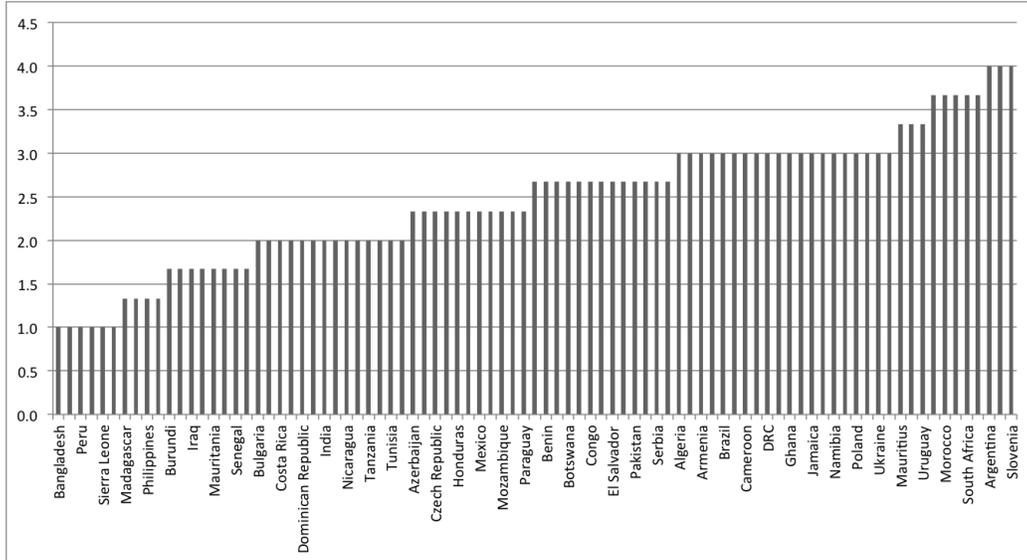
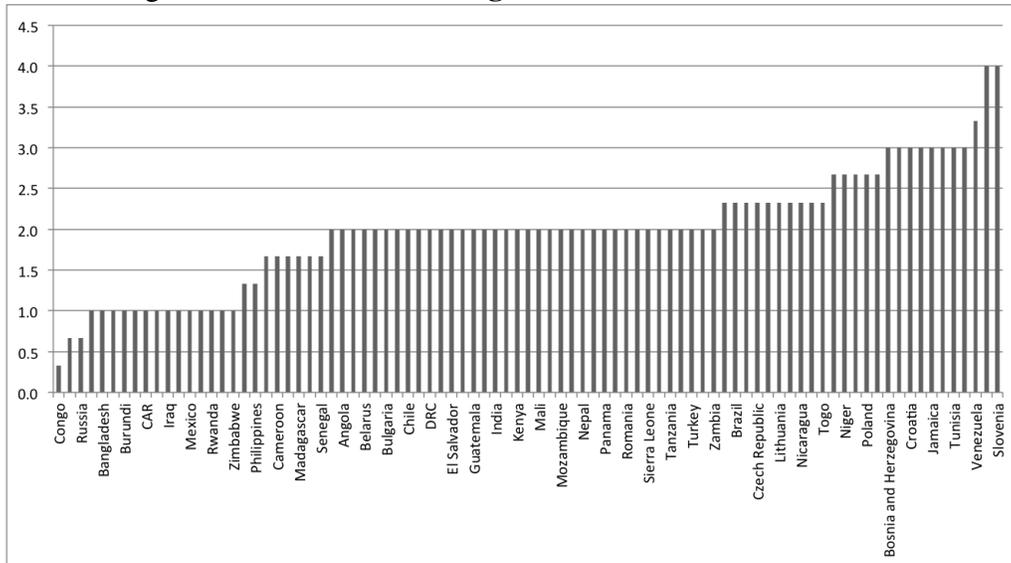


Figure 3.8: The Social Dialogue Indicator Across Countries



the countries with the highest union score are Benin, Bosnia and Herzegovina, Croatia, Lithuania, Niger, and Slovenia, with a score of 4.0. The average of the union variable for this sample is 2.8.

Figure 3.9: The Union Indicator Across Countries

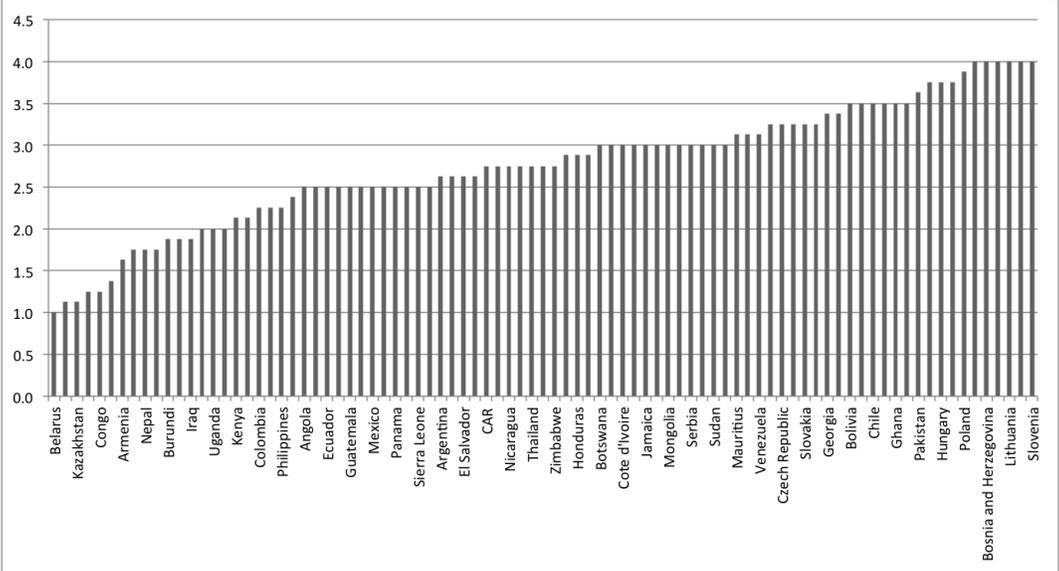
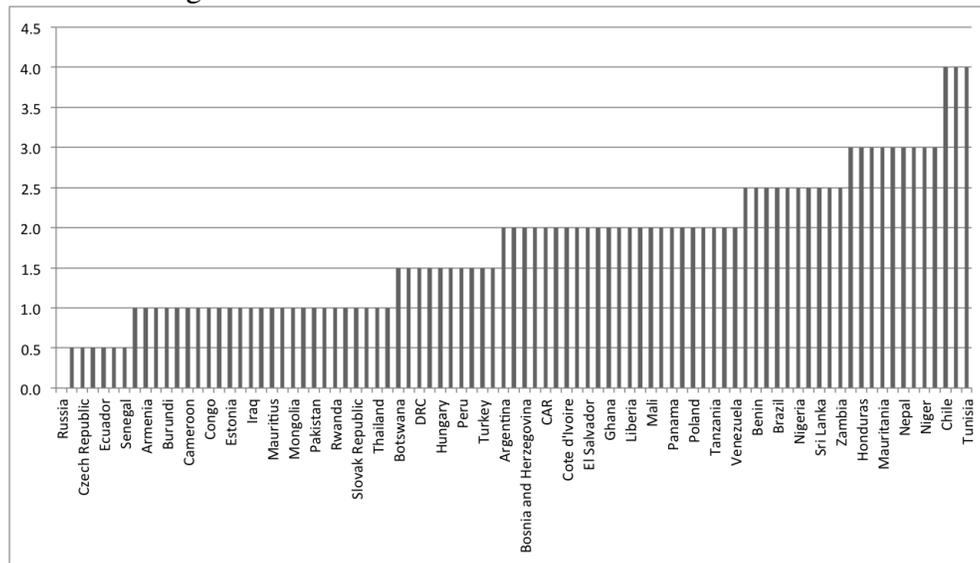


Figure 3.10 shows the strike variable, which measures the importance of strikes in the past three years leading up to 2012. The lowest score is 0.0 is found in Russia, which indicates there were no strikes. Following this, Azerbaijan, Czech Republic, Dominican Republic, Ecuador, Lithuania, and Senegal all have scores of 0.5. Chile, South Africa, and Tunisia are at the other end of the spectrum, and have the highest score for this indicator of 4.0. The overall average of the strike variable in 2012 is 1.8.

Figure 3.10: The Strike Indicator Across Countries



3.4.4 Empirical Strategy

For the primary model, each hypothesis is tested⁹ using the five independent variables. Hypothesis one states that CME nations should have a more effective welfare state and higher levels of government spending. Hypothesis two states that CME nations should have lower levels of inequality. Hypothesis three states that CME nations should have lower poverty levels.

It is recognized that this empirical strategy may face an endogeneity problem. The direction hypothesized in this chapter is that the economic system will affect the welfare state and welfare outcomes. However, it may be that the levels of welfare state generosity, inequality, and poverty affect the level of economic coordination. As such, the following results should be read with the consideration of a potential endogeneity issue.

9. All of the tests were completed with data that were first cleansed for outliers. Then each test was run using robust regression specifications. Previous to the robust regression, each test was checked for multicollinearity, omitted variable bias, and heteroskedasticity. There were some indications of a heteroskedasticity problem with the poverty variable, however the robust option is used to correct for these problems.

3.5 Results

3.5.1 Principal Component Analysis for Coordination

Before the empirical tests, the four independent variables that measure labour market coordination were compiled together using principal component analysis (PCA) to make an estimate of coordination. Below are scatter plots of the dependent variables and the principal component indicator, which reflects coordination. These scatter plots give a preliminary insight in to the potential relationships between a coordinated labour market and the dependent variables being tested in the three hypotheses. The bubbles used to indicate the various countries in the scatter plot vary by size according to the population of a country.

Figure 3.11: **Correlation of the coordination indicator and the welfare state for the full sample of countries**

Correlation Between the Coordination Indicator and the Welfare State

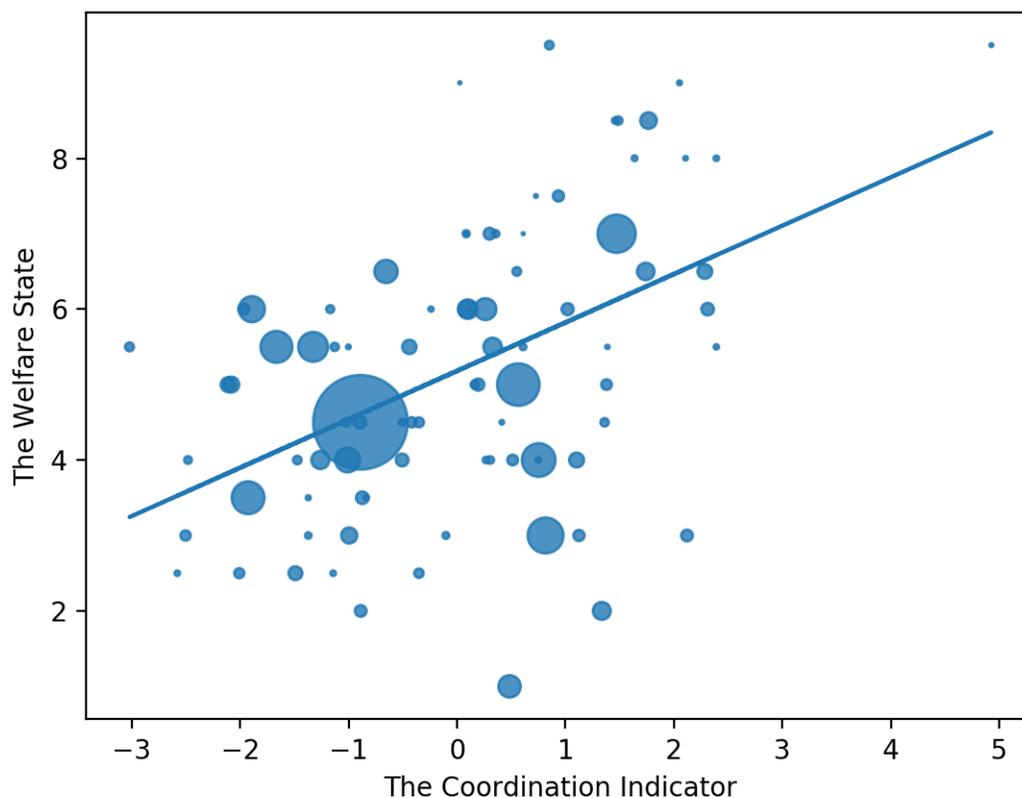


Figure 3.12: **Correlation of the coordination indicator and government spending on health for the full sample of countries**

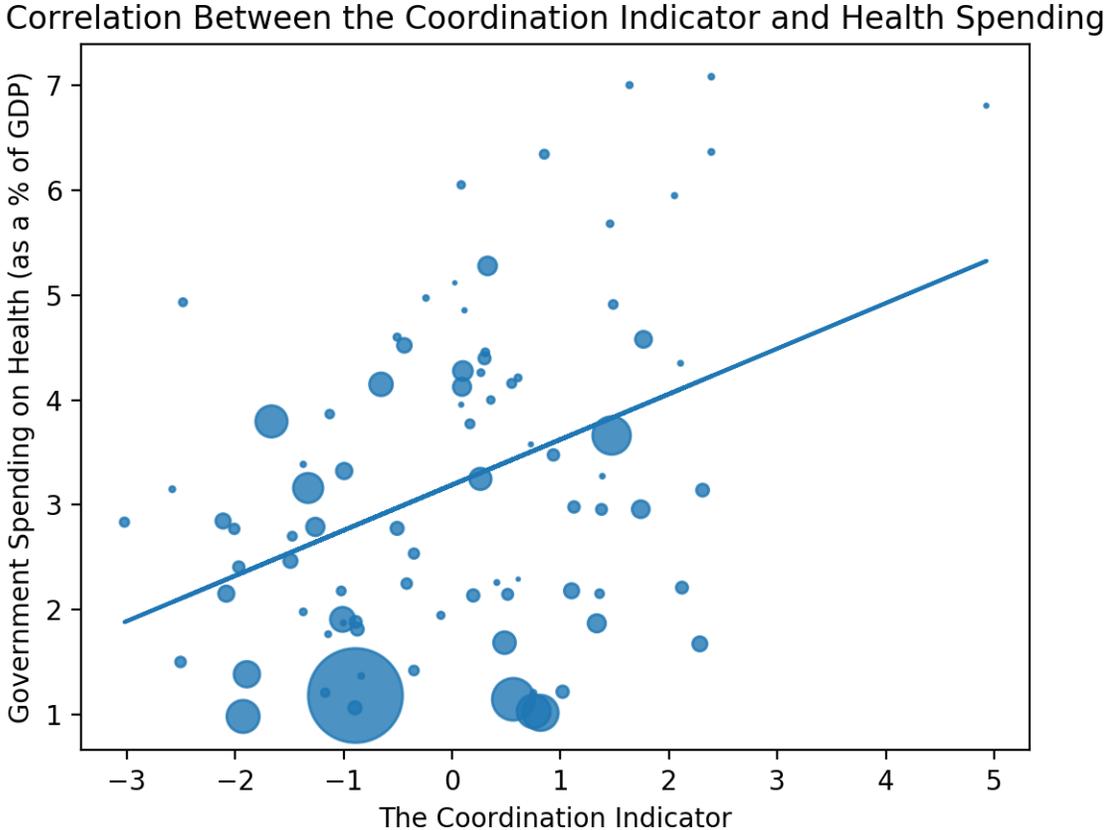


Figure 3.11 shows that there is a positive correlation between welfare and labour market coordination. Figure 3.12 shows there is a positive correlation between health spending and labour market coordination. From these two graphs, support for hypothesis one begins to emerge. Coordinated labour markets tend to encourage a strong welfare state and higher government spending.

Figure 3.13: **Correlation of the coordination indicator and the Gini coefficient for the full sample of countries**

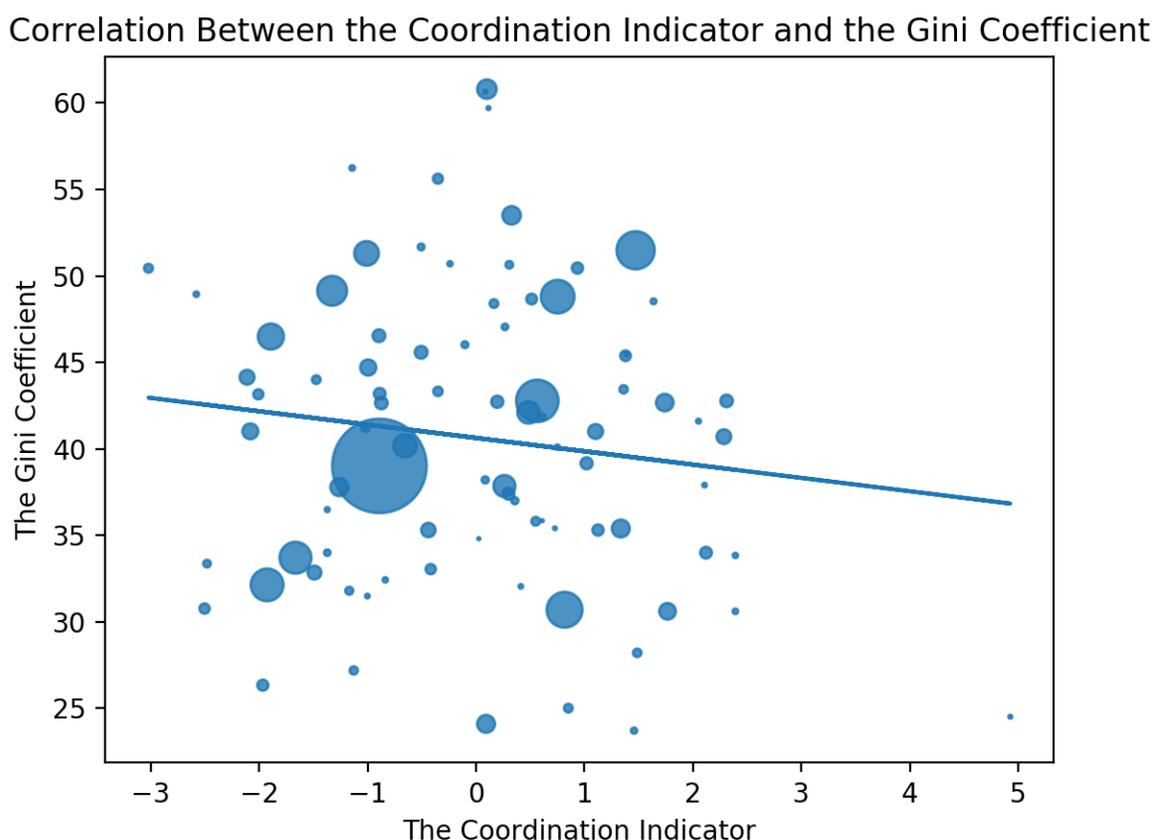
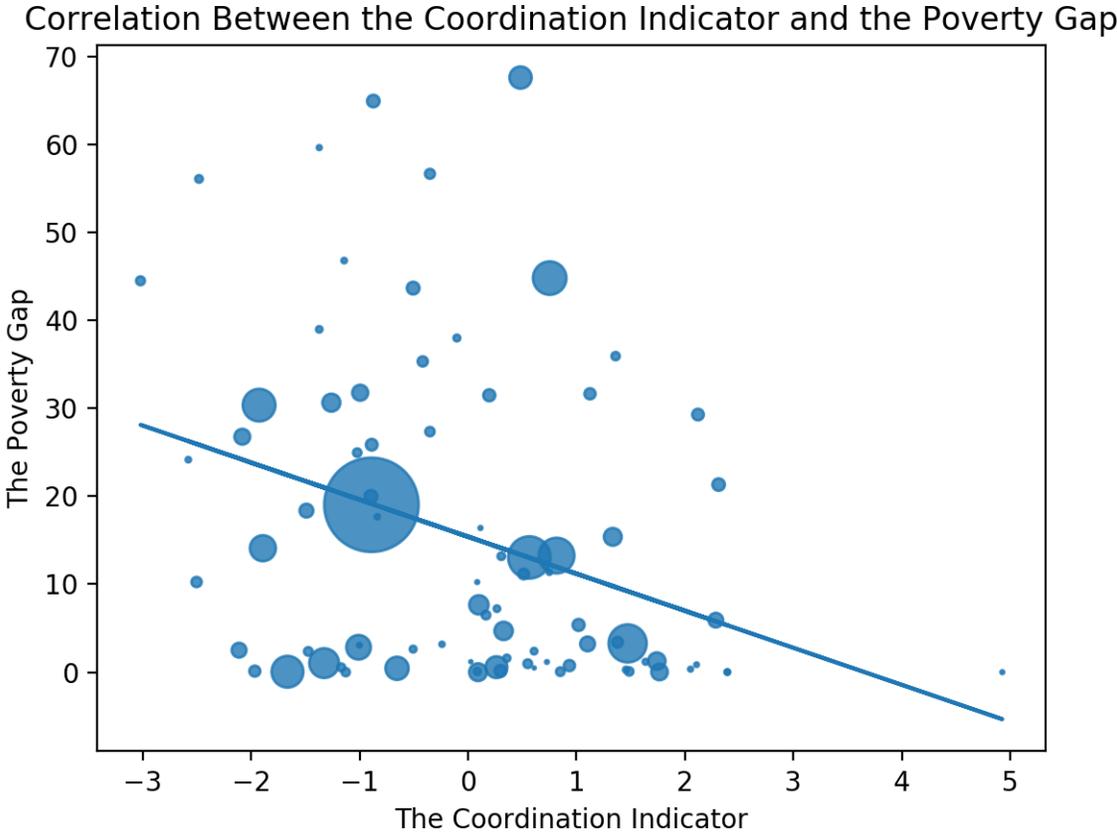


Figure 3.13 shows a negative relation between the Gini coefficient and coordination, indicating that lower income inequalities coincide with a more coordinated economy. When this exercise was repeated with the D9D1 indicator, the relationship was not visible, and the graph showed a flat line.

Figure 3.14 shows a negative relation between poverty and labour market coordination. This suggests that there is some support for hypothesis three, that coordination on the labour market decreases the level of poverty in a country.

Figure 3.14: **Correlation of the coordination indicator and the poverty gap for the full sample of countries**



This exercise is repeated with the democratic sub-sample of countries. The results for hypothesis one are very similar to those of the full sample. Figure C.5 shows that there is a positive correlation between welfare and labour market coordination. Figure C.6 shows there is a positive correlation between spending and labour market coordination.

Figure 3.15: Correlation of the coordination indicator and the welfare state for the democratic sample of countries

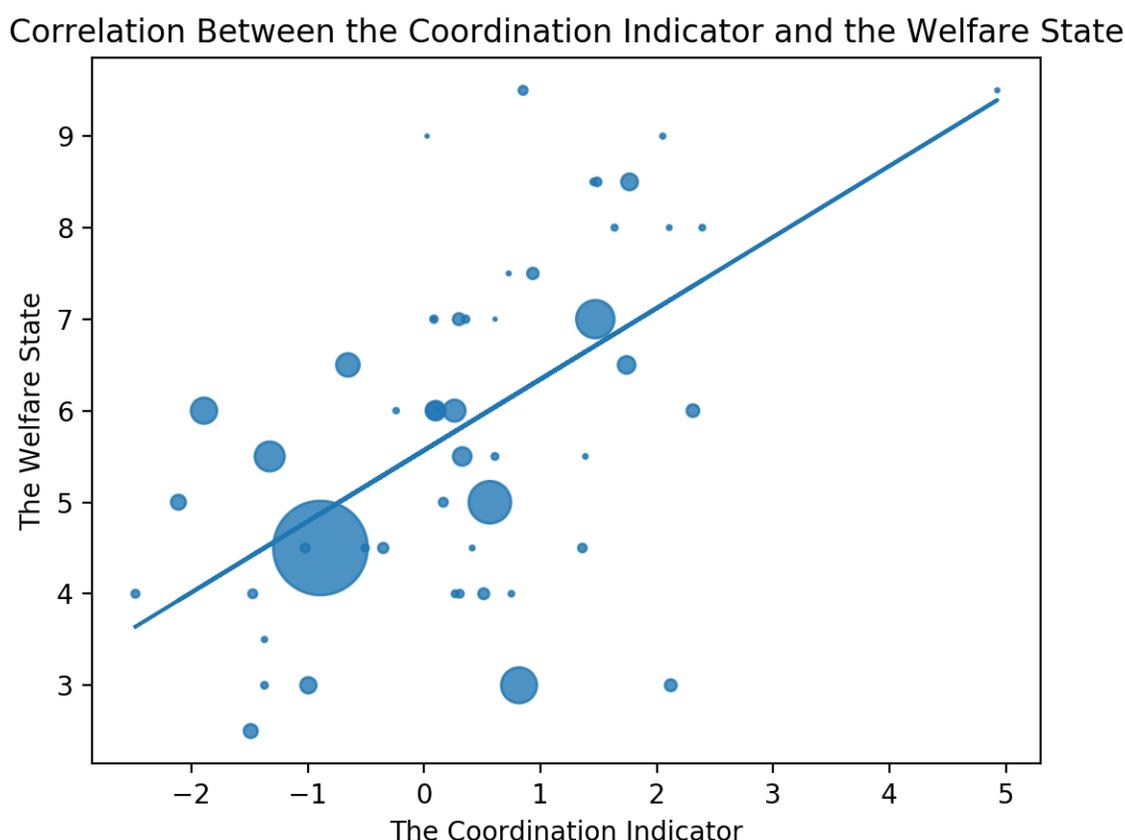


Figure C.7 shows a negative relation between the Gini coefficient and coordination for democratic countries. This time, when this exercise was repeated in the democratic sample of countries for the D9D1 variable, the relationship became negative.

Figure C.8 shows a negative relation between poverty and labour market coordination, similar to the finding using the full sample of countries.

Figure 3.16: **Correlation of the coordination indicator and government spending on health for the democratic sample of countries**

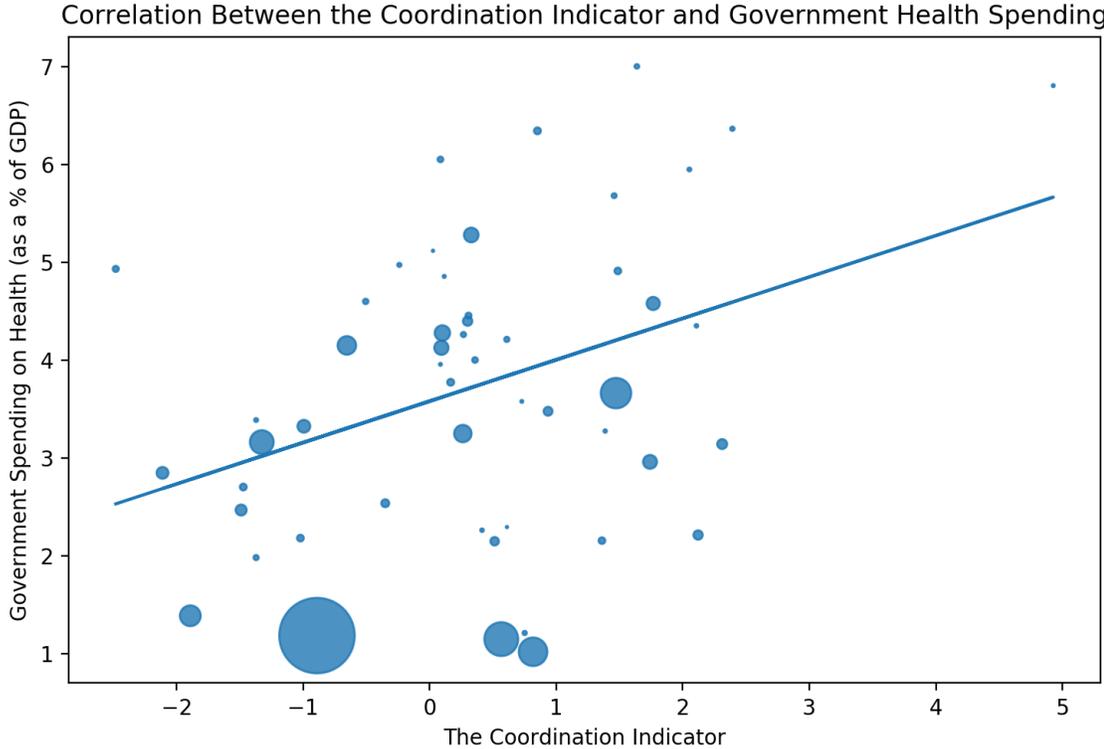


Figure 3.17: **Correlation of the coordination indicator and the Gini coefficient for the democratic sample of countries**

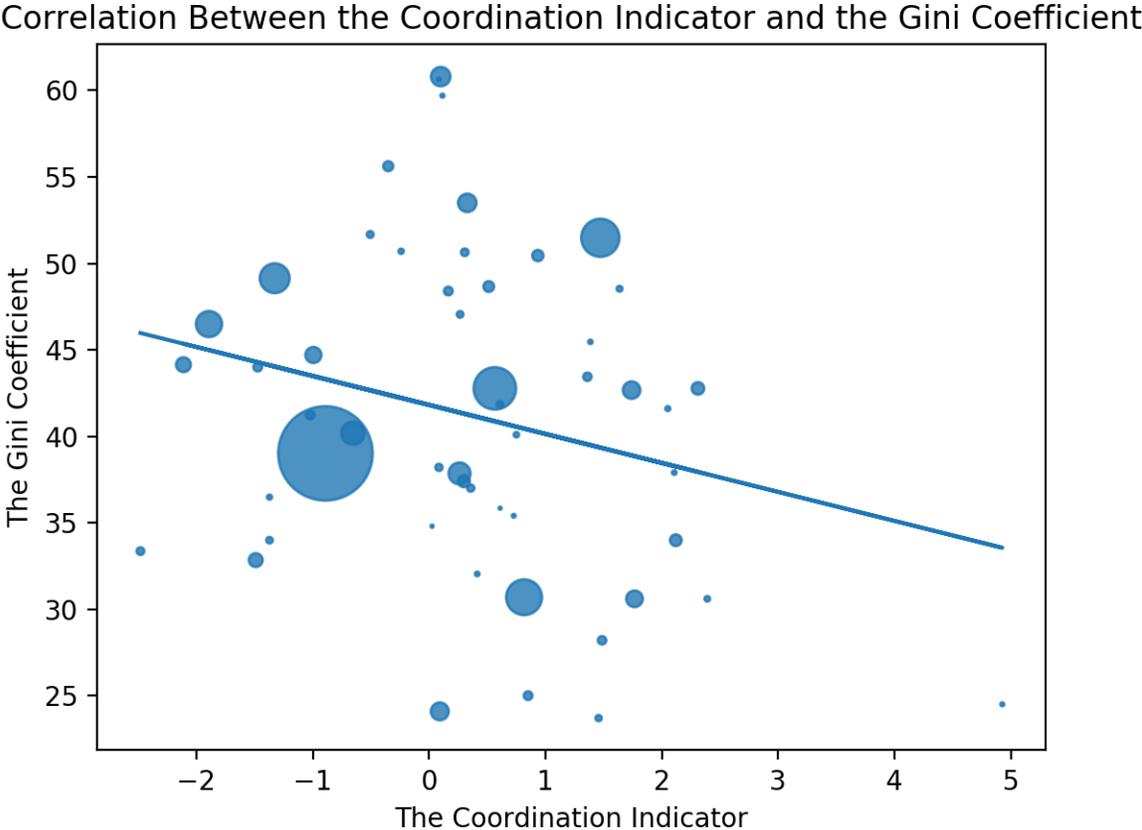
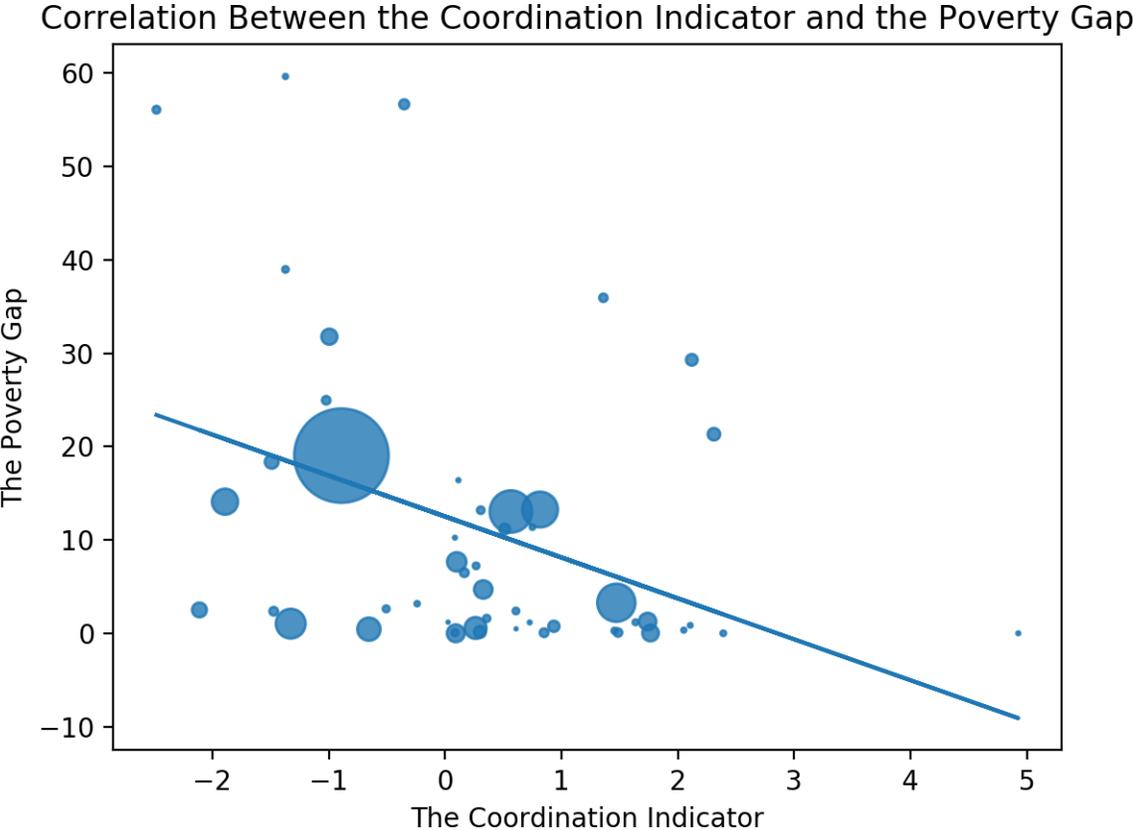


Figure 3.18: **Correlation of the coordination indicator and the poverty gap for the democratic sample of countries**



3.5.2 An Empirical Test of the Hypotheses

To advance the understanding of the relationship between the welfare and welfare outcome variables, and the labour market, a cross-section regression analysis is used¹⁰.

Table 3.4 shows the results of the three hypotheses using the primary model of this study, which includes the four labour market institutional variables as well as the strike variable.

Columns one and two, that regress the welfare state variable, *welfare*, and government spending on health variable, *health*, respectively, on the independent labour market variables show results pertaining to the first hypothesis. In column one, vocational training, *train*, is positive and significant at a one per cent level, contract protection, *contract*, is positive and significant at a one per cent level, and social dialogue, *social* is positive and significant at a five per cent level. The union variable, *union* is positive, but not significant, and the strike variable, *strike* is negative, but not significant.

In column two, *train* is positive and significant at a one per cent level and *social* is positive and significant at a five per cent level. *Contract* is positive, but not significant, *union* is negative, but not significant, and *strike* is negative, but not significant.

Column three shows the results from the regression of the Gini coefficient on the labour market variables. In column three, *train* is negative and significant at a five per cent level, and *social* is negative and significant at a one per cent level. *Contract* and *union* are positively related to the Gini coefficient, but not significantly so. The strike variable, *strike*, is positive and significant at a one per cent level.

The results for the second income inequality variable, *D9D1*, are shown in the fourth column. *Contract* has a positive relationship to *D9D1* at a ten per cent level, and *strike* also has a positive

10. To account for outliers in the data, this analysis begins by examining the studentized residuals from the regressions predicting the respective dependent variables from the independent variables. These results were sorted to show the observations with the smallest and largest residuals. Observations with studentized residuals exceeding +2 or -2 were removed from the data due to worryingly large or small values.

relation at a five per cent level. In a similar manner to the results with the Gini coefficient, *social* has a negative relation to *D9DI*, and is significant at a five per cent level. Both *train* and *union* are positive, but not significantly related to *D9DI*.

The results concerning hypothesis three, displayed in the fourth column of table 3.4, show some support for the idea that coordinated economies have lower levels of poverty. Vocational training and contract protection are negatively related to poverty, and both variables are significant at a one per cent level. *Social*, *union*, and *strike* are all positive, but not significant.

The findings using the primary model in this chapter show widespread support that vocational training is a component of a more generous welfare state, with higher levels of government health spending, and lower levels of inequality and poverty. *Social* also provides evidence to support the hypotheses of this chapter. *Contract* provides ambiguous support for the overall research question, as it has opposite signs for *welfare* and *health*, the two components of hypothesis one, as well as a positive sign for *D9DI* and a negative sign for *poverty*. *Strike* is positive and significant for both measures of inequality.

Table 3.5 builds on the primary model by including a dummy variable for democracy, *democracy*. The democracy variable comes from the Polity IV index. This index ranges from -10 to +10, and a country is considered a democracy, and thus takes the value of one, if it scores a six or higher¹¹. Including democracy in this analysis is important for two reasons. First, the literature on this subject has been created for and evolved around advanced democratic countries. Second, the democracy dummy variable reveals whether or not the fact that a country is a democracy has an effect on the welfare state and welfare state outcomes. This chapter predicts that democracy will have a positive relation to the welfare state and government spending, and a negative relation to the level of income inequalities and poverty.

11. A country with a score of 10 is considered a full democracy, a country with a score ranging from 6 to 9 is considered a democracy, a country with a score from 1 to 5 is considered an open anocracy, a country with a score from -5 to 0 is considered a closed anocracy, and a country with a score from -10 to -6 is considered as an autocracy (PolityProject).

Table 3.4: **The determinants of hypotheses one through three**

	Welfare	Health	Gini	D9D1	Poverty
Train	0.836*** (0.216)	0.923*** (0.212)	-2.393** (1.191)	0.035 (0.487)	-9.106*** (2.061)
Contract	0.623*** (0.217)	0.111 (0.215)	1.608 (1.176)	0.726* (0.403)	-6.114*** (1.978)
Social	0.507** (0.223)	0.507** (0.221)	-4.361*** (1.356)	-1.678** (0.652)	0.194 (2.401)
Union	0.301 (0.258)	-0.002 (0.229)	0.814 (1.441)	0.745 (0.510)	1.803 (2.157)
Strike	-0.255 (0.207)	-0.015 (0.182)	3.795*** (0.960)	0.915** (0.382)	0.413 (1.523)
Constant	1.090 (0.684)	0.522 (0.585)	38.940*** (3.760)	4.907*** (1.268)	35.748*** (7.630)
Observations	82	83	83	81	79
R-Squared	0.435	0.291	0.251	0.154	0.324

Column one shows results using *welfare* as the dependent variable, column two shows results using *health* as the dependent variable, column three shows results using *Gini* as the dependent variable, column four shows results using *D9D1* as the dependent variable, and column five shows results using *poverty* as the dependent variable. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Table 3.5 shows support for the first hypothesis, which states that more coordinated economies tend to have more generous welfare states. In column one, *train* is positive and significant at a one per cent level, *contract* is positive and significant at a one per cent level, and *social* is positive and significant at a five per cent level. *Strike* is negatively related to the welfare state, and significant at a ten per cent level. The dummy variable for democracy, *democracy*, is positive and significant at a one per cent level.

The regression using the second variable to test the generosity of the welfare state, *health*, finds less support for hypothesis one. *Train* and *Social* are positive, but not significant. *Contract* is positive and significant at a ten per cent level. *Union* and *strike* are negative, but these variables are not significant. Finally, *democracy* is positive and significant at a one per cent level.

Table 3.5 shows that there is moderate support for hypothesis two, which states that income inequalities, as measured by the Gini coefficient, tend to be lower in coordinated economies. *Train* and *social* are negatively related to the Gini coefficient, and are significant at a five and one per

cent level, respectively. As with the primary model, *contract* is positive and now is significant at a five per cent level. Finally, *strike* is positive and significant at a one per cent level. The democracy variable is positive, but not significant.

A similar relation is found for *D9DI*, as *social* is negative and significant at a five per cent level, and both *contract* and *strike* are both positive and significant at a ten and five per cent level, respectively.

Finally, table 3.5 shows that the labour market variables *train*, *contract*, and *union* all have a significant relation to the poverty gap. Vocational training and employment contract protection are significant at a one per cent level, and negatively related to poverty. However, counter to the predictions made in this chapter the union variable, *union*, is positively related to the poverty gap at a one per cent level. The democracy dummy variable is negatively related to poverty and significant at a one per cent level.

Table 3.5: **The determinants of hypotheses one through three with control variable *Democracy***

	Welfare	Health	Gini	D9D1	Poverty
Train	0.704*** (0.218)	0.396 (0.240)	-3.302** (1.251)	-0.093 (0.521)	-5.987*** (1.769)
Contract	0.681*** (0.194)	0.347* (0.181)	2.564** (1.199)	0.810* (0.414)	-8.019*** (2.026)
Social	0.446** (0.223)	0.177 (0.223)	-4.506*** (1.367)	-1.702** (0.659)	-0.194 (2.161)
Union	0.141 (0.256)	-0.175 (0.208)	0.424 (1.558)	0.575 (0.524)	6.745*** (2.441)
Strike	-0.376* (0.198)	-0.138 (0.176)	3.464*** (0.914)	0.917** (0.383)	1.284 (1.358)
Democracy	1.093*** (0.300)	1.343*** (0.276)	2.293 (1.971)	0.678 (0.712)	-14.355*** (3.268)
Constant	1.276* (0.694)	1.239* (0.667)	38.818*** (3.787)	4.979*** (1.267)	30.688*** (6.667)
Observations	82	84	83	81	79
R-Squared	0.520	0.346	0.271	0.164	0.489

Column one shows results using *welfare* as the dependent variable, column two shows results using *health* as the dependent variable, column three shows results using *Gini* as the dependent variable, column four shows results using *D9DI* as the dependent variable, and column five shows results using *poverty* as the dependent variable. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Table 3.6 shows the results of the three hypotheses using the primary model, with the addition of the logged gross domestic product (GDP) per capita, *logGDP*, to control for the level of the development of a country.

After controlling for the level of the development of a country, there is slightly less support for the first hypothesis of this chapter that states coordinated economies have more generous welfare states. In column one, *train* and *contract* are no longer significant. *Social* remains positively related to *welfare*, and is significant at a one per cent level. Additionally, *union* is positive and significant at a one per cent level in column one. While *union* is positively related the generosity of the welfare state, *strike* is negatively related to the welfare state and significant at a ten per cent level. The economic development control variable, *logGDP*, is positively related to *welfare* and is significant at a one per cent level.

In column two, *train* is positive and significant at a ten per cent level. *Social* is also positively related to health and significant at a one per cent level. *Contract* is negatively related to *health* and is significant at a ten per cent level. This result is the opposite of what was predicted originally in this chapter. *Union* and *strike* are positive, but not significant, and *logGDP* is positive and significant at a one per cent level.

The results for the second hypothesis, shown in columns three and four in table 3.6, which states that CMEs have lower levels of inequalities, are similar to those found in table 3.5. *Train* is negative and significant at a ten per cent level, and *social* is negative and significant at a one per cent level in column three. *Contract* is positive and significant at a ten per cent level, and *strike* is positive and significant at a one per cent level for *Gini*. *LogGDP* is negative but not significant.

Column four shows that *social* is negatively related to *D9D1* and significant at a five per cent level and *strike* is positively related to *D9D1* and significant at a five per cent level. *Train* is negative, and *contract*, *union*, and *logGDP* are positive, but none of these variables are significant.

Support for hypothesis three is greatly weakened when *logGDP* is included in the regression, as vo-

cational training and contract protection are no longer significant. However, *logGDP* is negatively related to the poverty gap and it is significant at a one per cent level.

Table 3.6: **The determinants of hypotheses one through three with the control for economic development, *logGDP***

	Welfare	Health	Gini	D9D1	Poverty
Train	-0.018 (0.1530)	0.384* (0.200)	-2.483* (1.382)	-0.321 (0.547)	-1.473 (1.382)
Contract	-0.215 (0.151)	-0.339* (0.189)	2.094* (1.243)	0.498 (0.438)	-1.453 (1.342)
Social	0.642*** (0.175)	0.581*** (0.201)	-4.365*** (1.352)	-1.240** (0.547)	0.239 (1.560)
Union	0.378*** (0.140)	0.060 (0.207)	0.965 (1.447)	0.473 (0.473)	1.667 (1.398)
Strike	-0.186* (0.107)	0.092 (0.146)	3.504*** (0.946)	0.831** (0.375)	-1.265 (1.022)
LogGDP	1.386*** (0.105)	0.740*** (0.106)	-0.151 (0.857)	0.295 (0.305)	-10.730*** (0.919)
Constant	-7.473*** (0.800)	-4.034*** (0.859)	39.381*** (6.438)	3.574* (2.089)	103.019*** (8.591)
Observations	81	82	82	80	78
R-Squared	0.818	0.516	0.253	0.111	0.782

Column one shows results using *welfare* as the dependent variable, column two shows results using *health* as the dependent variable, column three shows results using *Gini* as the dependent variable, column four shows results using *D9D1* as the dependent variable, and column five shows results using *poverty* as the dependent variable. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

A final control variable measuring the ethnic fractionalization of a country, *fractionalization*, is used in this empirical study. This variable comes from Alesina, et al. (2003). *Fractionalization* is often included as a control in regressions in developing countries, as extreme fractionalization may impact the quality of institutions. The data composing *fractionalization* come from the early to mid-1990s (Alesina, et al., 2003). Table 3.7 shows the results from the primary model with the last control variable measuring fractionalization, *fractionalization*.

Table 3.7: The determinants of hypotheses one through three with *fractionalization*

	Welfare	Health	Gini	D9D1	Poverty
Train	0.586*** (0.216)	0.629*** (0.236)	-1.358 (1.269)	0.182 (0.505)	-3.846** (1.732)
Contract	0.475** (0.199)	0.088 (0.222)	1.716 (1.101)	0.815** (0.374)	-6.952*** (1.847)
Social	0.473** (0.215)	0.418* (0.241)	-4.206*** (1.296)	-1.558** (0.625)	1.015 (2.009)
Union	0.483** (0.228)	0.071 (0.227)	0.324 (1.458)	0.615 (0.488)	1.519 (1.782)
Strike	-0.356* (0.187)	-0.050 (0.178)	3.835*** (0.938)	0.752** (0.353)	1.245 (1.151)
Fractionalization	-2.828*** (0.615)	-1.729*** (0.628)	8.245** (3.268)	2.502** (1.160)	33.233*** (5.345)
Constant	2.962*** (0.718)	1.963** (0.869)	33.903*** (4.535)	3.506** (1.561)	10.581 (7.111)
Observations	81	84	83	80	77
R-Squared	0.578	0.319	0.305	0.19	0.597

Column one shows results using *welfare* as the dependent variable, column two shows results using *health* as the dependent variable, column three shows results using *Gini* as the dependent variable, column four shows results using *D9D1* as the dependent variable, and column five shows results using *poverty* as the dependent variable. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

In column one of table 3.7, *train*, *contract*, *social*, and *union* are all positively related to *welfare*. *Train* is significant at a one per cent level, while the other previously mentioned variables are significant at a five per cent level. *Strike* is negative and significant at a ten per cent level, and *fractionalization* is significant and negative at a one per cent level.

Column two shows that *train* and *social* are positive and significant at a one per cent level and a ten per cent level, respectively. *Contract* and *union* are positive but not significant, and *strike* is

negative, but not significant. *Fractionalization* is negative and significant at a one per cent level.

Columns three and four show the results pertaining to inequalities. In column three, *social* is negative and significantly related to the Gini coefficient at a one per cent level. *Strike* and *fractionalization* are positive, and significant at a one and five per cent level, respectively.

There are similar findings for the D9D1 variable, with the exception that *contract* is positive and now significant at a five per cent level in column four. Apart from this difference, *social* is negative and significant at a five per cent level, *strike* is positive and significant at a five per cent level, and *fractionalization* is positive and significant at a five per cent level.

Finally, column five shows the relation to poverty. With the inclusion of the fractionalization index of a country, *train* and *contract* are negative and significant at a five and one per cent level, respectively. *Fractionalization* is positive and significant at a one per cent level. *Social*, *union*, and *strike* are positive, but not significant.

Table C.5 displays the results of a model run including the three control variables, which shows the effects of the three control variables together.

In column one, *social* is positive and significant at a one per cent level, *union* is positive and significant at a ten per cent level, *democracy* is positive and significant at a five per cent level, and *logGDP* is positive and significant at one per cent level. *Strike* remains negative, and is significant at a five per cent level, and *fractionalization* is also negative and it is significant at a one per cent level.

For the dependent variable *health*, shown in column two, *social* is positive and significant at a ten per cent level. *Train* is positive but not significant. *Contract*, *union*, *strike* are negative but not significant. *Democracy* is positive and significant at a five per cent level, *logGDP* is positive and significant at a one per cent level, and *fractionalization* is negative but not significant.

The results concerning inequalities are shown in columns three and four. For *gini*, *social* is negative and significant at a one per cent level. *Contract* is positive and significant at a ten per cent level and *strike* is positive and significant at a one per cent level. *Democracy* is positive and significant at a ten per cent level and *fractionalization* is positive and significant at a one per cent level. Both employee contract protection and democracy have the opposite signs as originally predicted.

In column four, *social* is negative and significant at a five per cent level, both *strike* and *logGDP* are positive and significant at a five per cent level, and *fractionalization* is positive and significant at a one per cent level.

Column five in table C.5 shows the results pertaining to the poverty gap. *Contract* is negative and significant at a five per cent level, and *union* is positive and significant at a five per cent level. The control variables *democracy* and *logGDP* are negatively related to *poverty*, and significant at a five and one per cent level, respectively. *Fractionalization* is positive and significant at a one per cent level.

Table 3.8: The determinants of hypotheses one through three with control variables *democracy*, *logGDP*, and *fractionalization*

	Welfare	Health	Gini	D9D1	Poverty
Train	-0.145 (0.165)	0.171 (0.239)	-1.172 (1.295)	-0.340 (0.512)	-0.661 (1.418)
Contract	-0.036 (0.145)	-0.158 (0.207)	2.100* (1.213)	0.533 (0.467)	-4.098** (1.639)
Social	0.597*** (0.181)	0.412* (0.235)	-3.843*** (1.395)	-1.580** (0.632)	0.739 (1.492)
Union	0.290* (0.151)	-0.024 (0.200)	-1.883 (1.624)	0.231 (0.531)	3.771** (1.675)
Strike	-0.290** (0.121)	-0.018 (0.166)	3.928*** (0.912)	0.981** (0.377)	-0.469 (1.046)
Democracy	0.534** (0.229)	0.762** (0.354)	3.527* (1.951)	0.815 (0.705)	-5.823** (2.621)
LogGDP	1.102*** (0.129)	0.583*** (0.153)	1.116 (0.877)	0.819** (0.374)	-7.896*** (1.096)
Fractionalization	-1.340*** (0.466)	-0.280 (0.603)	14.758*** (3.473)	4.493*** (1.324)	15.600*** (4.597)
Constant	-4.539*** (1.138)	-2.485* (1.490)	23.869*** (7.496)	-2.347 (2.819)	73.629*** (10.580)
Observations	82	84	82	81	80
R-Squared	0.826	0.485	0.376	0.256	0.780

Column one shows results using *welfare* as the dependent variable, column two shows results using *health* as the dependent variable, column three shows results using *Gini* as the dependent variable, column four shows results using *D9D1* as the dependent variable, and column five shows results using *poverty* as the dependent variable. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

The main finding from these results is that the effectiveness of social dialogue is a key component of welfare state generosity. Further, this aspect of the labour market found in coordinated economies is positively related to the level of equality within a country. Vocational training is also often relevant to welfare state generosity, low levels of equality, and low levels of poverty. Another clear finding is that the fractionalization of a country negatively impacts the welfare state, equality, and poverty. In all cases except for with the Gini coefficient in C.5, *democracy* is positively related to the welfare state, and negatively related to poverty.

There are some ambiguous results from the empirical analysis. First, employee contract protection is positively related to the welfare state variable, but it is negatively related to government health expenditures. This may be because permanent contract jobs, which are considered more high quality jobs, provide health benefits to the workers, thus many are not relying on the government to provide health care. Similarly, contract protection has a negative relation to poverty, but in some cases there is a positive relation to inequalities. This ambiguous finding may be due to a wedge created between protected workers and precarious workers. It is a possibility that in countries with high contract protection, those who are unable to secure high quality, protected positions are left exposed in the labour market to harsh conditions, lower wages, and lower non-wage benefits.

The union variable is also, at times, ambiguous. For example in table C.5, *union* is positively related to *welfare*, but also positively related to *poverty*. A similar situation to the one mentioned above may be occurring with the union variable, as unionization should positively increase the welfare state levels of generosity, but those not protected by a union may be left exposed. It also may be that the union variable in this chapter is simply not measuring the correct idea, as *union* represents union freedoms, not union density or strength.

A secondary finding is that strikes (within the last three years) are negatively related to both the welfare state and income equality within a country, when significant. However, as previously mentioned in this chapter, these findings may be affected by the potential endogeneity problem, as a weak welfare state may be encouraging strikes. Also, striking may take time to impact national

institutions, like the welfare state, and welfare outcomes, like inequalities.

Finally, it has been hard to disentangle the role of unions from the perspective of VoC theory versus that of PRT. As previously mentioned, unions play an important role in coordinated economies, but also unions act as the solution to the collective action problem that workers face, thus enabling workers to strike in a cohesive and efficient manner. It has been made clear, however, that in some cases *union* was found to be positively related to the welfare state, but *strike* was exclusively negatively related to the welfare state, and positively related to income inequalities and poverty.

3.6 Conclusion

This chapter analyzes the effects of a coordinated market economy on the welfare state and welfare state outcomes, namely inequality and poverty, for a sample of developing countries. Four labour market indicators, which include union freedoms, vocational training, contract protection, and social dialogue, are used to represent different institutional aspects of a coordinated economy. To avoid a too narrow focus on the varieties of capitalism literature, a variable measuring the intensity of strikes accounts for a different aspect of comparative capitalism theory.

The empirical analysis in this study finds that economic institutions affect developing countries. When considering hypothesis one, that states countries with a coordinated economy should produce a stronger welfare state and high levels of government spending on health, it is shown that social dialogue is the most influential factor. Vocational training and contract protection also have a positive impact on the welfare state, but this effect largely disappears once economic development is controlled for.

The second hypothesis in this study is that coordinated labour market institutions, which are an integral part of a coordinated economy, should improve inequality within a country. Hypothesis two did not receive overwhelming support in this analysis, but similarly to hypothesis one, effective social dialogue was an influential factor.

The overwhelming finding relating to hypothesis two in fact had little to do with the VoC argument. In power resource theory, societal conflict should increase the welfare state, and therefore improve its outcomes. In this chapter, strikes are used as a proxy for societal conflict. Instead, this chapter finds that strikes have a negative relation to the welfare state and a positive relation to inequalities. This finding holds for all different specifications tested in this chapter¹². These results go against the predictions of power resource theory which states that civil conflict should lead to stronger welfare states, and thus lower levels of inequalities.

The third hypothesis states that a coordinated economy should see lower levels of poverty. Two labour market variables were particularly significant in the primary model, vocational training and employee contract protection. These labour market variables were negative, indicating that a more training and stronger contract protection coincided with lower levels of poverty. Interesting, the union variable had a positive relation to poverty when democracy is added to the model, as well as when all three control variables are added to the model, indicating that more independent and pluralistic unions positively impacted the poverty gap of the countries in the sample. This finding could mean that there is an insider-outsider effect created by unions. This finding may also be that the variable chosen, a composition variable incorporating union freedom, independence, and plurality, does not perfectly capture the variable typically used in studies on this topic. A more appropriate variable would be union density or union strengths. Once more data become available on unions in developing countries, it will be necessary to re-run these analyses to see if the results change.

The primary model initially showed strong support for hypothesis three, as noted above, but these relations weakened greatly after including the control variable for economic development, the log of GDP per capita, into the regression analysis. With the inclusion of the log of GDP per capita, the labour market variables ceased to be significant, thus indicating that the development of a country explains the level of poverty of a country, and not the labour market. When all three

12. Although in the primary model, shown in 3.4, the strike variable was not significantly related to *welfare*

control variables were added back to the primary model, contract protection once again became significantly related to lower poverty levels.

Including democracy in the analysis showed that democratic countries tended to have stronger welfare states, and when all three control variables were added to the analysis, democracy was positively related to the welfare state, negatively related to the Gini coefficient, and negatively related to poverty.

Including fractionalization in the analysis revealed that deep divisions within countries hinder welfare state generosity, equality, and poverty reduction.

Thus, while in some instances the other labour market variables were relevant in explaining the welfare state and welfare state outcomes, the main explanatory factor is social dialogue. This finding is interesting because out of the four variables explaining coordination in the labour market, social dialogue is the only one not necessarily linked to the legal institutions of the nation. This indicates that organic economic conditions may be essential to forming the economic structure and the resulting policies of a country, rather than formal legal institutions.

Finally, another aspect of comparative capitalism, power resource theory, was mentioned. Support for PRT was found not in this chapter. This, however, does not necessarily indicate that PRT does not play a role in the welfare state and welfare state outcomes in developing countries as only one indicator, strikes, was used in this study. In order to find a more definitive result, similar studies should be completed with a deeper and wider consideration of PRT to understand the role of this theory in developing or transitional nations.

As noted above, these findings should be interpreted with a potential problem of endogeneity in mind. This chapter shows that the economic system affects the welfare state and welfare outcomes, however due to insufficient data, it is extremely difficult to exclude the possibility that the direction of causality does not run the other way. Indeed, it may be that the welfare state, inequality within a country, and national poverty affect the level of economic coordination. As more complete data

become available, and especially as longer panels become available, it will be necessary to re-analyze this relationship to confirm the causality between economic coordination and the welfare state in developing countries.

Chapter 4

Social Protection Clusters in Sub-Saharan Africa

4.1 Introduction

Sub-Saharan Africa, a region comprised of 48 countries, is undergoing significant demographic change. By 2060, the global population is expected to rise to 10 billion people, with 2.8 billion of these people living in Africa. While this number is predicted to be 5.2 billion people for Asia, Africa will be the region facing the highest increase in the global population due to presently high fertility rates and falling death rates (Canning et al., 2015).

Many economists are focused on how the region will take advantage of the forthcoming potential demographic dividend, where a demographic shift across the region will provide African countries with a large working population with a low number of dependants¹ (Drummond et al., 2014; Canning et al., 2015). While the quest to tackle this upcoming problem is being undertaken by development economists, little emphasis has been placed on the current social protection systems in this region, and their potential evolution.

Social protection and the welfare state have been central themes in the political economic literature for decades, notably after the seminal work by Esping-Andersen (1990) on the three typologies of welfare capitalism found in advanced democracies. This work has been extended to developing countries (Gough and Wood, 2004; Gough, 2013), but the focus, while it has briefly been extended to SSA, is largely placed at the global level, thus considers developing countries as a whole instead

1. A demographic dividend occurs when a demographic shift in a country or region increases the working population ratio to the dependent population ratio. This shift happens after a period of high fertility, but falling mortality rates. After the effects of the falling mortality rates, especially in children, are witnessed, falling fertility rates lead to a bulge in the productive, working age population and a deficit in the dependent population (seen both in children and in the elderly).

of at a regional level.

The predicted influx of people means that governments in SSA, many of which are fragile, will need to prepare for an increased capacity of protection systems and the inevitable strain on resources. In the past decade, poverty in the region has declined, HIV/AIDS is starting to come under control, and stemming from this, among other things, life expectancies are starting to increase. Moreover, literacy rates and access to education are going up, and other development indicators, such as access to electricity or mobile phones, are also improving. Economic development and social protection, perhaps as a function of development, contributed greatly to these improvements. In order to continue this upward trend of well being in the face of a demographic boom, it is necessary to understand the big picture of social protection in SSA : the diversity across the region, where is social protection high, and if this protection is leading to optimal welfare outcomes. Understanding these features of Sub-Saharan African nations will shed light on how to handle the future demographic boom, and more simply, what directions SSA countries are heading toward.

Recently there were ideas that social protection may only be a ‘donor trend’ in SSA (Niño-Zarazúa et al, 2010), but the consistent and growing welfare practices of many countries in the region debunk the idea that governments in the region will abort their current practices and plans for the extension of assistance. On the contrary, the uptake in government spending on social programs and new permanent and pilot programs suggests that the practice of social protection is being embedded into the framework of SSA institutions.

In addition to the increase in social protection seen in SSA, encouraging advancements in technology show how these programs can continue to grow. The region is a prime example of how new technologies are increasing access to services and driving down costs of this access. For example, mobile technologies allow poor, rural people to hold bank accounts, a traditionally infeasible practice. Financial inclusion is expanding with the uptake of these mobile bank accounts, and already African governments are taking advantage of this when providing social assistance. For example, the Social Assistance Grants for Empowerment (SAGE) program, which began in 2011 in Uganda,

is a pilot program that provides direct cash payments, either electronically or manually, to the poor and vulnerable using the Mobile Money Unit of MTN, a popular mobile network operator in SSA (Zimmerman and Bohling, 2013).

Similarly, South Africa, a leader in social protection systems in the region, listed the migration of social grant beneficiaries from cash payments to electronic payments as a priority for their national social protection system. Accessing these grants electronically decreases the costs of the social protection programs and increases the coverage to beneficiaries. Already, over one half of the recipients access these benefits electronically, and the majority of these recipients are using a mobile phone to do so. This is a notable achievement because the social grant program in South Africa is permanent, not a trial, and covers 15 million beneficiaries (Pulver and Ratichek, 2011). Further, it shows how social protection can be extended and managed in a sustainable manner.

In order to understand the advancement of social protection at a regional level, this chapter uses a latent profile analysis (LPA), or mixture modelling analysis, to divide 41 SSA countries into different categories based off of their particular welfare mix and their welfare outcomes. The welfare mix is the combination of the sources of social protection received by an individual. This analysis finds four different clusters.

The first cluster found is characterized by democratic countries with above average domestic public expenditures and a strong civil society that yields positive welfare outcomes without a reliance on international expenditures or private health expenditure. The second cluster consists of a group of undemocratic countries with low domestic and international spending, but with moderate welfare outcomes. Cluster three characterizes a group of states with above average levels of democracy and moderate levels of domestic and international spending for the Sub-Saharan African region. Finally, the countries in cluster four have high levels of spending, notably international spending, and poor outcomes. The level of democracy is slightly above average for cluster four.

This chapter first starts off with a review of the current literature on social protection in Sub-

Saharan Africa. Next, some descriptive statistics of social protection and welfare outcomes in the region help set up the following analysis, which includes an extension to the current literature and the latent profile analysis. The well performing countries from profile one are considered in detail. After, a brief section connects the findings of this chapter back to the main ideas of this thesis concerning the role of economic coordination and political institutions. Finally, the conclusion recapitulates the findings of this study. The goals of this chapter are to streamline the literature on social protection in SSA, evaluate the current state of social protection in SSA, and examine the differences, if any, between the social protection systems in democratic countries and non-democratic (or less stable democratic) countries in SSA.

4.2 Literature Review

Two strands of literature on the welfare state in Sub-Saharan Africa have been developed in the past decade. First, a political economic approach placed developing countries within the overall framework of the literature on the welfare state. Within this framework, research specific to SSA is present, but not yet completely formalized. Second, a more historical and social approach documented the progression of social protection in SSA into two different models. These two paths covering social protection in SSA are summarized below. Understanding how the literature has progressed will allow a complete view of the accepted current state of social protection in the region. After this, the literature can be streamlined and then updated to reflect the modern situation of social protection in Sub-Saharan Africa.

4.2.1 The Welfare State In Developing Countries

The welfare state has played a central role in political economic analysis during the past few decades. Esping-Andersen (1990) constructively defined different welfare typologies, which sorted

advanced democratic states into three ideal-types : liberal, corporatist, and social democratic ².

While the nations within each category continue to evolve, perhaps even crossing over towards a different typology, the study of these welfare state groups has lead researchers to a greater understanding of social insurance and social protection institutional systems. When considering the welfare state of advanced democracies, it is essential to look at how the state interacts with the market and the household. However, when attempting to apply welfare state theories to developing countries, which may or may not be democratic, more elements must be considered.

The fundamental differences between advanced democracies and developing countries means a new typology (or typologies) must be defined for developing countries. Gough and Wood (2004) present the concept of an informal security regime (ISR). ISRs are compiled of informal labour that directly produce food and goods. This shows how livelihoods can replace the traditional formal labour market found in advanced democracies.

To complement the idea of ISRs, the authors highlight the ‘welfare mix’ concept, which includes all resources that may improve the welfare state in developing countries. In addition to the state, the market, and the resources of the household, when studying developing nations one also must consider international organizations, non-governmental organizations, foreign aid, and remittances. All of these factors taken together encompass the outside resources an individual potentially benefits from.

Thus, Gough and Wood (2004) devise a new way to view the welfare state in developing countries by introducing a typology that considers how developing countries differ from advanced democracies, notably by having a large informal market and other means of producing livelihoods than the formal market, and by considering other elements that come together to provide an extension of welfare services from the traditional role of the state. Additionally, if the presence of ISRs and the welfare mix are true, it is hard to conceive of a state program to de-commodify labour, as labour

2. These three idea-types have been covered in more detail in the third chapter of this thesis.

is not yet formally commodified³. The conceptualization of the welfare state changes slightly, but social protection in developing countries exists and must be further understood.

Using the concept of the welfare mix and the welfare outcomes resulting from this system, Gough (2004) conducts a cluster analysis on a sample of developing countries using determinants of the welfare mix and determinants of welfare outcomes. The welfare mix is composed of domestic public expenditure, comprised of public expenditure on education and health, domestic private health expenditure, and international spending, which includes aid and remittances. The welfare outcomes included are the human development index (HDI)⁴, poverty, literacy, and a form of life expectancy⁵. Using these variables provides a more direct measure of security in developing countries, as, among other things, decommodification is not effective and political mobilization takes different forms, such as ethnicity and caste over the traditional western forms of class.

This analysis yielded four clusters, with three country outliers. The first cluster, actual or potential welfare state regimes, is composed of countries with strongly committed states and relatively high welfare outcomes. Kenya is the only country from SSA in cluster one. The second cluster, more effective informal security regimes, is defined by below-average state spending and low international flows, but with relatively good welfare outcomes. No countries from SSA are found in this cluster. The third cluster, less effective informal security regimes, is made up of countries that have low levels of public spending and moderate international flows that lead to poor levels of welfare. Cameroon, Central African Republic, Madagascar, Tanzania, and Togo are found in this cluster. Finally, the fourth cluster, externally dependent insecurity regimes, is defined by countries dependent on international transfers, either aid or remittances, with very weak welfare outcomes. The majority of SSA countries are found here, including Benin, Burkina Faso, Burundi, Chad, Ethiopia, Ghana, Malawi, Mali, Mozambique, Senegal, and Uganda.

3. Labour becomes commodified when it enters into a labour contract that is dependent on the market. To de-commodify labour means to enable a person to earn a livelihood without dependence on the market. (Esping-Andersen, 1990)

4. The data used in analysis are from “around 1997”.

5. Gough uses the Disability-Adjusted Life Expectancy (DALE).

Gough (2013) repeated a different variation of this study using the variables public spending on education and health, social security contributions, immunization against measles, secondary school enrollment of females, official aid, and remittances from overseas migrants for the welfare mix, and the variables life expectancy at birth and the illiteracy rate of the youth for welfare outcomes on 65 developing countries. The SSA countries included in this analysis were spread over five different clusters, showing an increased variety of social protection regimes in the region. Importantly, this study stresses that there should be a no 'one size model' applied for social protection systems in the developing world.

With a specific overview of Africa as a region, Bevan (2004) summarizes and begins to analyze the concept of insecurity regimes (IRs) in Africa. IRs are characterized by states with no formal or informal security net, chronic conflict, and widespread suffering. Notably, Bevan includes countries from North Africa in addition to countries from Sub-Saharan Africa, however, the bulk of the work focuses on SSA countries. Bevan uses some descriptive statistics to aid in the argument, but does not complete a data analysis. One of the main conclusions from this work is that a 'quadri-furcated' welfare mix can be found in African countries and the current state of social protection and the welfare state in Africa is limited. A quadri-furcated system means that within one country, citizens face four different types of the welfare mix according to their socio-economic standing. Thus, according to this logic, African countries typically have an international elite relying on international markets to obtain good outcomes, a middle class relying on a mixture of government and formal markets to obtain relatively good outcomes, a section of the population depending on a variety of societal organizations and networks who obtain uncertain outcomes, and a fourth group of people who are excluded from the state that are faced with dreadful outcomes. Although the idea of a quadri-furcated welfare mix is observant, Bevan neither provides an overall assessment of social protection in SSA, nor insight into potential SSA welfare typologies.

Fafchamps (2004) considers a different perspective. Rather than accepting the idea that Sub-Saharan African countries have informal labour markets, Fafchamps states it is the academics and

researchers that are unable to understand how African markets act in practice. Due to this lack of comprehension, these scholars tend to call everything not following the rules of western societies ‘informal’. More strikingly, Fafchamps states that many SSA countries may be even more market oriented than advanced countries. The logic behind this statement comes from the idea that in advanced western economies, the bulk of transactions are done under the umbrella of a large firm or government. Contrary to this, SSA is comprised of many individual entrepreneurs conducting transactions that are determined by the present economic environment.

Due to this un-institutionalized concept of exchange in SSA, an entire ecosystem has emerged to reinforce the way of the African market place and trade. Without the watchful eye of government regulators, or the option taking a business partner to court⁶, SSA traders adopted a flexible exchange system based off of social networks to build trust between buyer and seller. Instead of having a formalized market with formalized institutions, entrepreneurs in SSA have created ‘informal’ solutions.

Rodrik (2008) takes this idea of informal solutions to elaborate on the formation of ‘second-best’ institutions. As developing countries face more institutional limitations, the development and resulting types of national institutions will be different than the ones in advanced nations. There is a strong bias toward ‘best-practice’ institutions in the developed world, notably by those running international organizations that provide advice and aid to developing countries. However, these best-practice institutions often result in sub-optimal outcomes and unintended circumstances in developing countries, as the realities of these countries differ significantly from advanced democracies. Creating and sustaining second-best institutions combat sub-optimal outcomes and help create a productive system in developing countries. Thus, rather than trying to define developing economies within the existing welfare state literature, the second-best institution solution creates a new space entirely for explaining the emergence of different types of social protection systems in Sub-Saharan Africa.

6. The option to take a business partner or client to court is typically not feasible in SSA due to the high cost of courts and the inefficient nature of the judicial system. (Fafchamps, 2004)

At this point, the institutionalist literature has advanced greatly on the subject of social protection in developing countries. The idea of non-state sources of welfare found in the concept of the welfare mix overlap with the ideas presented by Fafchamps (2004) and Rodrik (2008) about how citizens of developing countries find other institutions, notably second-best institutions, to suit their needs. These concepts together show that a different way of thinking about social protection in developing states, especially in SSA, has emerged. However, apart from the aforementioned work by Bevan (2004) and Fafchamps (2004), little research has expanded to Sub-Saharan Africa.

Moreover, the work done by Bevan relies on statistics from the period 1975 to 1998, and does not complete any level of data analysis on the region. The findings about social protection in SSA are out-dated and incomplete. This chapter intends to further investigate social protection in SSA to first evaluate the claims of the welfare state clusters previously noted, and second evaluate social protection in SSA.

4.2.2 Social Protection in Sub-Saharan Africa

An overview of the relative literature helps preface the analysis this chapter attempts concerning social protection in SSA. To start at the most basic level, government spending in developing countries is considered. Governments in poor countries tend to spend more on targeted programs than on encompassing social benefits. Special interest groups are poised to benefit more from targeted programs because they can organize themselves and reduce information constraints (Keefer and Khemani, 2005).

Despite a prevalence of targeted programs, the main goal of social protection in SSA is to reduce overall poverty (Barrientos, et al., 2010). An anti-poverty shift in the region is leading to new social protection policies and an expansion of existing supplemental income transfers. The movement to increase social protection and to improve welfare programs is largely funded by foreign aid, but an increase in tax collection ability is leading to tax driven spending in a few countries.

Barrientos, et al. (2010) divide social protection in SSA into three categories : social insurance, labour market regulation, and social assistance. The social insurance category involves contributory schemes, protection for life-course risk, and unemployment insurance. The labour market regulation category sets the legal code and employment guidelines. The social assistance category largely addresses poverty. Social protection, comprised of these three components, evolved in the late 1990s in SSA, which makes sense as many countries only stabilized during the early and mid 1990s.

According to Barrientos, et al. (2010), these features of social protection have evolved into two different models, the Southern African Model (SAM) and the Middle Africa Model (MAM). The SAM expanded from first focusing on grants for the elderly to the vulnerable population in general, which importantly includes children. Social pensions have been established so far in Botswana, Lesotho, Mauritius, Namibia, and South Africa. These are non-contributory pension schemes funded by public taxes, and they cover the majority of eligible citizens.

The MAM is a mixed model, with transfers at the core of the social protection system, but with some programs implementing conditionalities in order to receive the benefits. Notably the MAM relies more on funds from international donors than from domestic public taxes.

Barrientos, et al. (2010) recapitulate and sort the various types of social protection programs in SSA, however their analysis is simplified, as it focuses on two models, Southern Africa and everything else, it does not account for the entire set of countries in SSA, and it does not consider the potential effects of democracy.

4.2.3 Streamlining the Social Protection Literature on Sub-Saharan Africa

The literature on the subject of the Sub-Saharan African welfare state and social protection is divided into two separate paths. One path focuses heavily on the welfare state as an institution. The other path is more centered on a development economics approach, with a focus on the his-

torical evolution of social spending, the effect of social spending on poverty, and different types of social protection programs in SSA. This chapter will attempt to bring these two parallel ideas that lie in different theoretical frameworks together to streamline, reconceptualize, and expand the knowledge on the welfare state and social protection in Sub-Saharan Africa.

4.3 Descriptive Statistics

Sub-Saharan Africa is typically portrayed as the poorest, most underdeveloped region when speaking of global economic trends. Because of this, there is little drive to uncover idiosyncrasies across the region, notably with respect to social protection. While this chapter does not contradict the data showing high poverty rates and low life expectancies emerging from SSA, this does not translate into the fact that SSA can be grouped together and set aside as one regional bloc. Instead, uncovering the differences between countries in SSA is essential in the analysis of both development and institutional economics.

To illustrate this point, below are three figures that show the diversity of selected welfare outcomes across SSA.

Figure C.9 shows the large variation in literacy rates across the region. Niger has a 19.1 per cent literacy rate, while South Africa has a literacy rate of 94.6 per cent. The average rate for this sample of SSA countries is 65.1 per cent, and in total, eight of these countries have an adult literacy rate above the global average of 85.3 per cent⁷. In comparison, the literacy rate for Latin American and the Caribbean is 92.4 per cent and 78.4 per cent for the Middle East and North Africa.

Figure C.10 displays the poverty gap for the Sub-Saharan African region. Once again, the difference in statistics across the region is evident. The poverty gap is 0.11 in Mauritius, and additionally Mauritania, Cabo Verde, and Gabon fall below the global poverty gap level of 3.2. At the other end

7. The individual country data for literacy, the poverty gap, and life expectancies, and the global averages come from the World Development Indicators by the World Bank. (Accessed 22/07/2016.)

Figure 4.1: Literacy rates across Sub-Saharan Africa

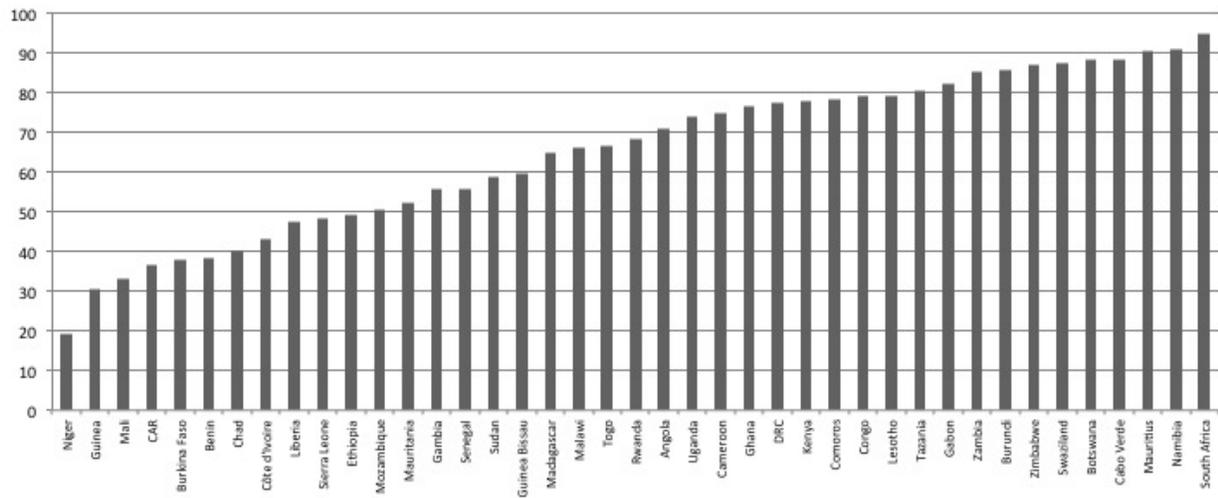
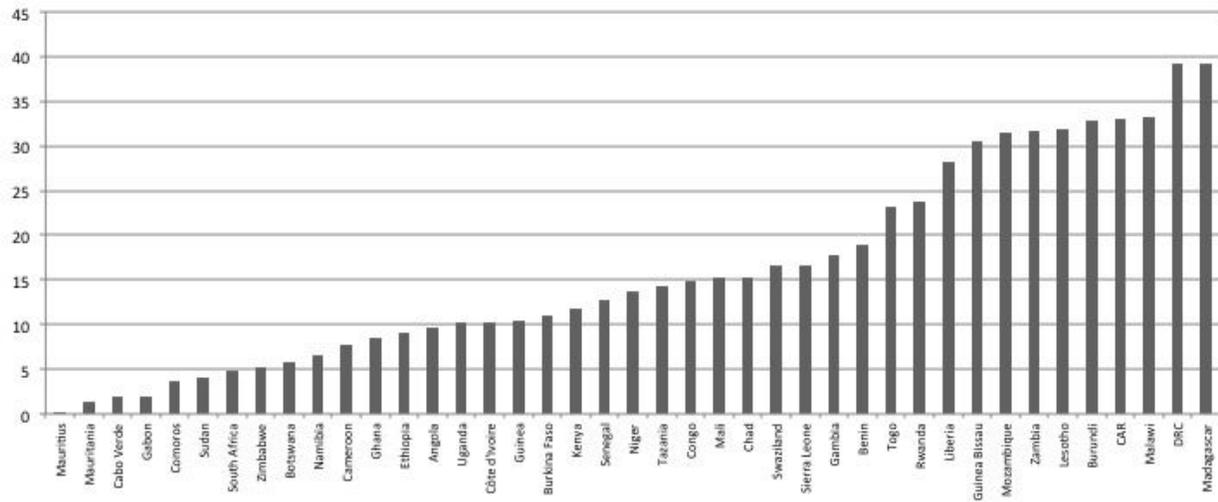


Figure 4.2: The poverty gap across Sub-Saharan Africa

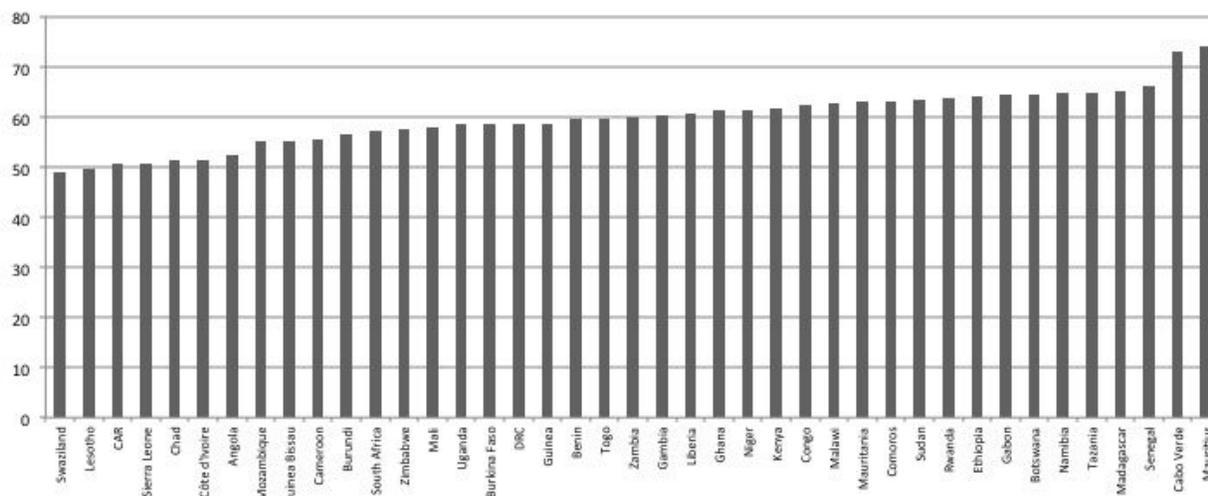


of the spectrum, Madagascar has a poverty gap of 39.23 per cent, and the Democratic Republic of Congo is right behind this level, with a poverty gap of 39.17 per cent⁸. The average for SSA is 16.05 per cent.

Figure C.11 shows the life expectancy across the SSA region. There is over a 25 year difference between the longest living Africans, found in Mauritius, and those living in Swaziland with the lowest life expectancy. The average life expectancy for the region is 59.75, compared to a global average of 71.7. The only two countries in this study that have higher life expectancies than the

8. The poverty gap differs between chapter three and chapter four. This is due to two things. First, the World Bank changed their definition of the poverty gap during the course of this thesis. When the research for chapter three was conducted, the poverty gap was set at \$2 (US), and was changed to \$1.90 (US) while the research for chapter four was being conducted. Secondly, the data provided by the World Bank is subject to change. The data for chapter three was collected on 03/12/2015 and the data for chapter four was collected 22/07/2016. While this clearly is not ideal for research, the World Bank is a trusted source for data, and one of the only sources for data on SSA.

Figure 4.3: The life expectancy across Sub-Saharan Africa

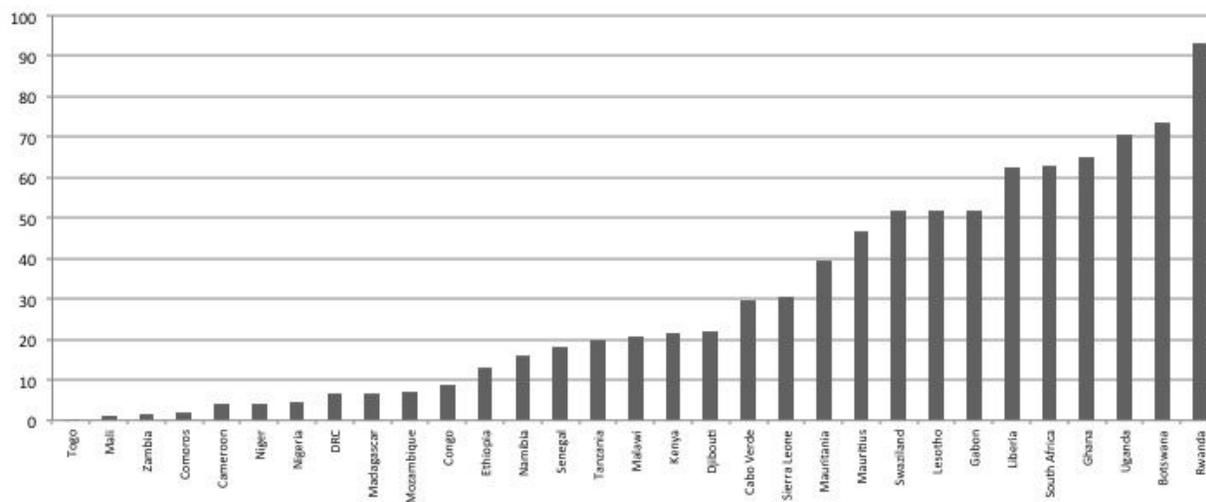


global average are Mauritius and Cabo Verde, with life expectancies of 74.19 and 73.15, respectively. To compare, Latin America and the Caribbean have an average life expectancy of 74.7, and the Middle East and North African region has a life expectancy of 72.3.

While only three welfare outcomes were considered in the descriptive statistics analysis, a picture begins to emerge of the Sub-Saharan African region. Across all three indicators, the average of the SSA countries used in this analysis are below the global averages. However, these figures also show the wide variation across the region with respect to the selected welfare outcomes.

In addition to a variation of welfare outcomes, the SSA region displays a wide range of social protection schemes. Figure 4.4 shows the percent coverage of all social protection and labour protection for a select group of SSA countries. Coverage indicates the percent of a population, inclu-

Figure 4.4: Coverage (per cent) All social and labour protection in Sub-Saharan Africa



ding direct and indirect beneficiaries⁹, that participates in social protection and labour programs. This indicator is aggregated, such that it includes social assistance, social insurance, and labour protection. Coverage for these programs range from 0.21 percent in Togo to 93.20 in Rwanda.

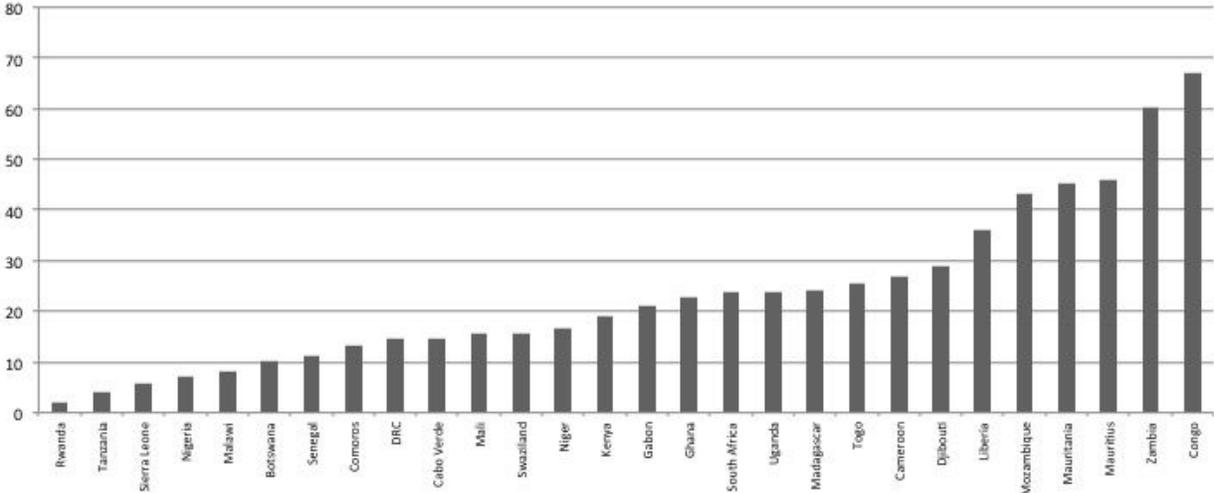
Figure 4.5 shows the adequacy of social protection and labour programs, as a percentage of the total welfare of beneficiary households, for the same group of SSA countries¹⁰. Adequacy is measured by the total transfer amount received by all beneficiaries in a quintile as a share of the total welfare of beneficiaries in the same quintile¹¹. When the countries are organized from the lowest adequacy

9. The ASPIRE database from World Bank, found within the World Development Indicators, states that coverage is the number of individuals in the quintile who live in a household where at least one member receives the transfer divided by the number of individuals in that quintile.

10. There were no recent data for Ethiopia, Lesotho, and Namibia, so these three countries have been excluded from the graph shown in figure 4.5.

11. The ASPIRE database states that adequacy of benefits is defined as the amount of transfers received by a quintile

Figure 4.5: Adequacy of social protection and labour programs (Per cent of total welfare of beneficiary households) in Sub-Saharan Africa



rating to the highest, Rwanda, which was the country with the highest coverage rates, has the lowest adequacy rates, meaning that while social protection may be widespread in Rwanda, it is not effective in bringing sufficient transfer payments to beneficiaries.

The descriptive statistics serve the purpose of showing the diversity of social protection in SSA. Additionally, these statistics relay how difficult it is to measure social protection in this region because of patchy data and a discrepancy, as seen in figures 4.5 and 4.4, between social protection in policy versus social protection in practice. In order to get past these shortcomings, a deeper analysis is conducted that updates the social protection literature and provides a new framework for classifying social protection in Sub-Saharan Africa.

4.4 Analysis

4.4.1 Updating the Picture on Social Protection in Sub-Saharan Africa

As it stands currently, the work done on African social protection and welfare regimes is based on data and anecdotes coming from the 1975 to 1998 time period. While it is undeniable that the economic, political, and social histories of these countries have influenced the current political economic environment and welfare regime space today, relying on data coming from a vastly different political era, namely a post-colonial dictatorship era or an era of civil war, is not appropriate for making a modern analysis of social protection in SSA. While the date of the effective constitution is not the perfect proxy for measuring stability, only seven countries out of 41 used in the LPA have effective constitution dates before 1990¹². These recent constitution dates can be likened to a pattern of countries gaining independence and then going through a post-colonial instability phase before reaching national stability. A large portion of the literature is based off of these periods of instability, while the conclusions about social protection in SSA should rather come from a more

divided by the total income or consumption of benefits in the same quintile.

12. This excludes 'revised' constitutions ('Constitute', Accessed : 26 August 2016).

recent era of government consolidation.

As it stands today, the various pieces of literature on the topic of social protection in developing countries, specifically in SSA, has emerged as many fractured pictures. While there are some similarities between the different findings, notably the clustering of Southern African countries¹³, which may be found simply due to regional transitivity, discrepancies stand. Even more importantly, as social protection in SSA is still evolving, there is no confirmation that these stated categories are indeed set in a group or within a specific trajectory. Thus, to confirm the standing results, as well as the path development trajectories in the previous work on social protection, it is necessary to employ a wider range of data, as well as updated data and case studies.

4.4.2 Latent Profile Analysis

A latent profile analysis, also known as mixture modeling, is performed in order to evaluate social protection in Sub-Saharan Africa. LPA is a statistical technique that classifies individuals, or in the case of this chapter, countries, into latent classes or types. Oberski (2016) explains the mixture modeling technique as “the art of unscrambling eggs : it recovers hidden groups from observed data” (Oberski, 2016, page 1). LPA is often used in sociology, but has started to become more widespread in economics. For example, Jang and Hitchcock (2011) employed LPA to test the validity of the majority-consensus democracy classification by Lijphart (1999), using the original data from 36 countries, and Amable et al. (2012) analyzed social blocs and the neo-liberal strategies of France and Italy using electoral surveys.

The data, described below, used in this LPA are inspired by the work by Gough (2004), where cluster analysis was used to map the welfare regimes in developing countries. The goal of the LPA in this chapter is to find clusters within SSA using social protection variables, a civil society measure, welfare outcome variables, and the level of democracy.

13. Gough (2013) finds that Botswana, Namibia, South Africa, and Zimbabwe all fall into one cluster, cluster D, in 2000. Barrientos, et al. (2010) also find a clustering of Southern African countries in their Southern African Model.

The social protection variables include government spending on education (as a per cent of GDP), government spending on health (as a per cent of GDP), and private spending on health (as a per cent of GDP). These variables together constitute the overall level of domestic spending. Following the setup by Gough (2004), in order to account for the international component of the welfare mix, the LPA includes net transfers from abroad (as a per cent of GDP), which are likened to remittances, and international aid (as a per cent of GDP). These two variables compose the overall level of international spending for a country. The social protection variables all come from the World Bank database from the most recent year between 2005 and 2012.

While Gough (2004) considers aid and remittances as equals contributing to the international aspect of the welfare mix, this chapter stresses that they may have different implications for welfare outcomes. Remittances are the net transfers of income from non-residents of a country to a resident of the respective country¹⁴, which typically happens when a family member moves abroad to find a better job, and then sends money back home to his or her family. Aid, on the other hand, is from foreign governments or official donors, given to domestic governments. However, as summarized in Fukuyama (2014), aid from donors, such as the World Bank, may end up in the hands of the officials in the receiving governments, and not transferred on to the citizens of the country. While this situation does not represent the general practice of aid to developing countries, the receiving government may, in certain circumstances, use aid corruptly.

To expand from the previous clustering work completed on developing countries, this analysis also includes a core civil society index (CCSI)¹⁵ to measure the strength of civil society in a country. This is a new addition to the literature, coming from the Varieties of Democracy database. The civil society index measures the robustness of civil society, and the data are of the most recent

14. Net current transfers from abroad is equal to the unrequited transfers of income from nonresidents to residents minus the unrequited transfers from residents to nonresidents. Data are in current U.S. dollars (World Bank, 2016).

15. The CCSI measures the robustness of civil society within a country (Coppedge, 2016b). The scope of civil society organizations extends to interest groups, labour unions, religiously inspired organizations engaged in civil or political activities, social movements, professional associations, and classic nongovernmental organizations (NGOs). Civil society organizations does not include businesses, political parties, government agencies, or religious organizations primarily focused on spiritual practices (Nur and Andersson, 2016).

years between 2012 and 2014¹⁶.

In addition to the various types of social protection, which constitute the welfare mix, welfare outcomes are also included in the analysis. These variables include the Human Development Index, literacy rates among adults, poverty, as measured by the poverty gap at \$1.90 per day, and life expectancy. The HDI comes from the United Nations Development Program (UNDP), while the literacy rate, poverty gap, and life expectancy come from the World Bank. The HDI data come from 2015 and the World Bank data come the most recent year between 2005 and 2015¹⁷. To measure the level of democracy, Polity IV index is used. According to the Polity IV index, a country is considered as democratic if it has a score of a six or higher.

4.5 Results

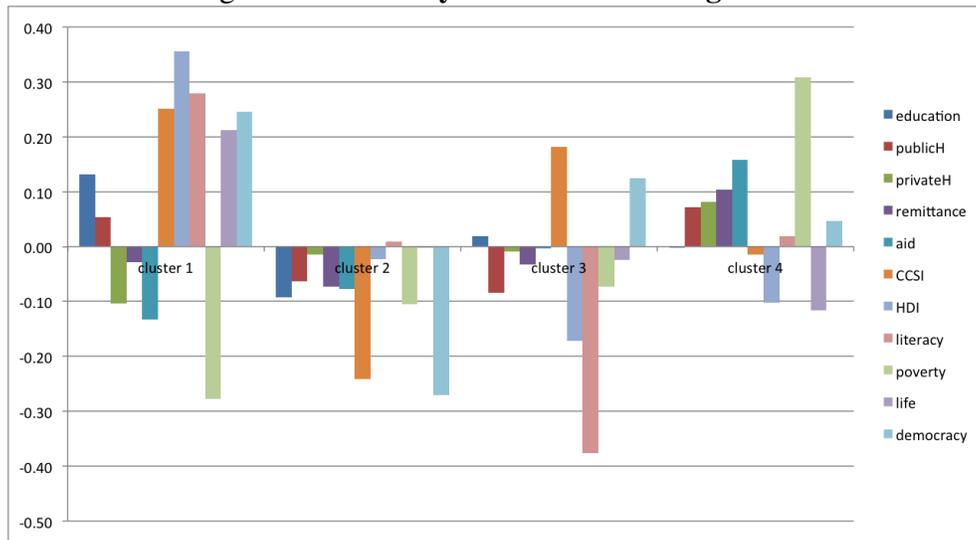
4.5.1 Social Protection Clusters in Sub-Saharan Africa

Four clusters were found from the LPA. The mean values for each respective variable categorize the clusters. The means for the variables can be compared against the means found in other clusters, thus giving an indication of the overall strength or weakness of a variable. To simplify the interpretation of these findings, the sample mean is subtracted from each cluster mean. This shows which variables are above average for a cluster and which variables are below average for a cluster. For example, in cluster one, the average amount of government expenditure on education is 6.18 per cent of GDP, and the overall average is 4.61 per cent. Thus, the number used for comparison is 1.56, allowing an easy interpretation that cluster one has an above average level of government expenditure on education. Once this is done for each variable, a general picture appears for the respective clusters. The modified means, shown in table C.6, are compiled using original data, however figure C.12 uses the standardized data for a clearer graphical comparison. The methodology

16. Coppedge, 2016a

17. The data for the poverty gap for the Gambia come from 2003. This is an exception to the time frame noted in the chapter.

Figure 4.6: Country clusters one through four



behind the LPA and choosing the number of clusters is described in appendix C. More details on the method of standardization used can also be found in appendix C.

Table 4.1: Modified means for clusters 1 through 4

Cluster	1	2	3	4
Educate	1.56	-1.09	0.23	0.00
PublicH	0.38	-0.45	-0.6	0.53
PrivateH	-0.86	-0.12	-0.08	0.69
Remittance	-1.64	-4.27	-1.86	6.28
Aid	-4.91	-2.83	-0.14	5.93
CCSI	0.19	-0.18	0.14	-0.01
HDI	0.15	-0.01	-0.07	-0.04
Literacy	21.07	0.76	-28.31	1.53
Poverty	-10.89	-4.03	-2.86	12.27
Life	5.36	0.01	-0.58	-3.01
Democracy	4.68	-5.12	2.38	0.96

Cluster one stands out in this analysis due to the above average levels of domestic government spending. Both public expenditures on education and health are above average, with public education spending a full point and a half over the average level for the SSA region. While the public expenditures are high, private health expenditures are below average, and moreover the first cluster displays the lowest averages for the region. Remittances and aid are both below average, and cluster one receives the lowest international aid out of the four clusters. Cluster one has high levels

of civil society, with an average score of 0.9 out of 1.0.

The above average domestic government spending, and low reliance on both private domestic spending and international spending, paired with a strong civil society, yields the strong welfare outcomes in the SSA region. The HDI is above average, with an average score of 0.65. This score places cluster one in the 'medium human development' range (HDR UNDP, 2015). Cluster one also has the highest literacy rates, the lowest levels of poverty, and the highest life expectancy in the region. The level of democracy is the final distinguishing feature for cluster one. This group of countries scores the highest level of democracy in the region, with Botswana, Cabo Verde, Ghana, Kenya, Mauritius, Namibia, and South Africa labelled as democracies according to the Polity IV index. Gabon is the only country not considered as a democracy in cluster one. Together, this cluster of eight countries is characterized as having above average domestic expenditures and a strong civil society¹⁸ that yields positive welfare outcomes without a reliance on international expenditures or private health expenditure.

Cluster two, which includes 13 countries, has below average domestic spending on public education, public health, and private health, and below average international spending. Cluster two has the lowest average levels of civil society out of the four found in this study. The HDI for cluster two is below average, but it is still the second highest in the region. Poverty is below average, and the life expectancy is average for the region. The literacy rate is slightly above average. This cluster has the worst democracy scores for the region.

Cluster two thus classifies a group of countries with low domestic and international spending, but with moderate welfare outcomes. This group of countries accomplishes this despite low levels of civil society and democracy.

18. In cluster one the correlation between Polity IV and the CCSI is quite high, at 0.7028, suggesting that these two variables may be measuring the same thing (political empowerment and freedoms). However, as each cluster has its own set of means and covariates, the correlation differs across the four clusters. The average correlation across the four clusters is 0.5784, and while it is still high, there is a differentiation between the democracy index and the civil society index, such that maintaining both variables in this study serves a useful purpose. Notably, while the two variables are indeed correlated, they are measuring different phenomena in developing countries.

Cluster three has above average levels of government education expenditure, but low levels of public health expenditure. Taken together, cluster three has slightly below average levels of government expenditure. Private health expenditure is also below average. Remittances are below average for cluster three, and the level of international aid is average for the region. When aid and remittances are combined, cluster three has below average levels of international expenditure. Cluster two and cluster three have similar trends in their spending in that both clusters have below average levels of government spending, private health spending, and international spending. However, the expenditure levels, both domestic and international, are lower for cluster two. Thus, cluster three is characterized as having moderate levels of domestic and international spending for the Sub-Saharan African region.

However, the moderate levels of spending do not translate into optimal welfare outcomes, indicating that cluster three has moderate levels of spending leading to poor outcomes. Cluster three has the lowest average for human development, as determined by the HDI. Further, the literacy levels in cluster three are the lowest for the SSA region and the life expectancy is slightly below average. The poverty gap is slightly below the average, but the average poverty gap for cluster three rests at 13.19 per cent.

The level of democracy is above average, with four out of seven countries scoring a six or higher on the Polity IV index. Also, the civil society index is above average for the region. The combination of democratic rule and a strong civil society does not seem to promote optimal welfare outcomes for cluster three.

Interestingly, the countries in cluster three also resemble geographical and historical clusters, with all seven of the nations belonging to ex-French West African colonies. The underlying similarities for this group of countries may, therefore, extend beyond the welfare mix and welfare outcome variables used in this study.

Finally, cluster four, which includes 13 countries, has above average domestic government ex-

penditures and domestic private health expenditures. The levels of private health spending are the highest in the region. The international expenditure is also high, with leading levels of aid and remittances in the region. The CCSI is below average, but democracy is slightly above average, with eight out of the 13 countries in the cluster labelled as democracies according to the Polity IV index.

The resulting welfare outcomes from this particular welfare mix are poor. The literacy levels are above average, but cluster four faces the worst levels of poverty in the region, as well as the lowest life expectancy. Also, the HDI is below average.

The third cluster has moderate levels of spending and poor outcomes, while the fourth cluster has high levels of spending, notably international spending, and poor outcomes. Besides the level of spending, which is the defining factor between cluster three and four, these countries have similar levels of democracy, and similar levels of civil society strength, with cluster four having a lower CCSI, but not a drastically low level for the regional average.

The main findings from the LPA show that democracy has an ambiguous overall effect on social protection and welfare outcomes¹⁹. The best-performing cluster, cluster one, has the highest levels of democracy, and indeed is comprised of democratic countries barring one country. However, the clusters three and four have above average levels of democracy for the entire SSA region, but poor welfare outcomes and cluster two has moderate welfare outcomes but is not democratic. Thus, the best performing group of countries in terms of welfare state outcomes also happens to be the most democratic, but this relation does not follow in a linear path. However, it is shown that democracy does enter into the welfare mix equation for achieving optimal welfare outcomes.

Another key finding concerns civil society. The high levels of civil society aids in creating favourable welfare outcomes for cluster one. This finding directly contrasts the ideas presented on the

19. Gough (2013) also does not find a link between generous welfare states and optimal welfare outcomes to democracy, but the findings between this chapter and Gough differ, as the best performing clusters in that analysis had a wider spread of democracy.

role of community and civil society in SSA by Bevan (2004), who stated that civil society is not an important feature in African nations. Specifically, Bevan states that communities in SSA are “probably as much involved in the generation of insecurity and illfare as they are in rectifying it” (Bevan, 2004, page 99). Perhaps this type of community insecurity is found in weaker African regimes, but civil society in many SSA countries, notably in the best performing ones, serves to reinforce social protection and societal well-being.

The last main finding comes from the lack of evidence to support the quadri-furcated welfare system. The idea behind the quadri-furcated system is that four different socio-economic groups comprise the national welfare space. First, the best performing cluster has higher public spending on health than private spending. If a quadri-furcated system was in place, countries should have high levels of private health spending, as the international elite are said to rely on international markets²⁰ for their favourable outcomes and the middle class rely on a mix of government and private national markets for their favourable outcomes. This reliance on private spending would be reflected by high private health spending, which is not found from this analysis. The lack of private spending, conversely, could be due to the lack of available resources of individuals and households, but if this is the case, this still does not constitute a quadri-furcated system, and does not explain the relatively good welfare outcomes of cluster one.

Additionally, the countries with the highest private spending are Sierra Leone and Liberia, with private spending at 9.2 and 6.9 per cent, respectively, of GDP. In Sierra Leone, high levels of donor spending characterize the health system. When private citizens do pay for their health care without the help from donor organizations, it is largely in the form of community-pooled loans, meaning that groups of people contribute their money together in order to cover out of pocket expenses needed by one of the community members²¹. In Liberia, a country that recently had its entire

20. The data do not specify if the payments made internationally would be included in the private health variable, but this variable also includes payments on private health insurance, which may fall into this category. Regardless, if there were a strong enough middle class using private domestic health services (large enough to make up a socio-economic group within the quadri-furcated system), this would push private health spending up.

21. ‘Analytical summary : Health financing system’

health care system destroyed by civil war, the private health care system also does not cater to an elite population. Rather, the need to quickly and efficiently re-build the health care system led to the creation of the National Health Policy (NHP) in 2007. The goal of the NHP is to deliver basic health to all Liberians, free of charge. In order to do this, the NHP harnessed all means possible, and thus engaged the public sector, the private sector, NGOs, and international organizations. While the government and NGOs in Liberia attempt to provide free service to Liberians, the private sector still plays an important role due to the lack of infrastructure. In some instances, the poorest Liberians thus have no option other than the private sector to obtain health services (Lee, et al, 2011). Specifically, Lee, et al. (2011) found that the poorest 20 per cent of Liberians spend up to 17 per cent of their yearly income on private health services. After unpacking the private health care statistics, no evidence of an elite population using high quality private services emerges from the countries with the highest levels of private spending. Instead, it seems rather that two countries, recently recovering from civil wars, are using all means possible to spread access to health care across their countries. This idea is backed up by the relatively moderate Gini coefficients measuring inequality in Sierra Leone and Liberia, which are 34.0 and 36.5, respectively.

4.5.2 Inactive Variables

In a supplemental analysis, the final clusters were further defined by four inactive variables to better understand different indicators in the four clusters. These variables include ethnic fractionalization, GDP per capita, the Gini coefficient to measure inequality, and state fragility. Ethnic fractionalization comes from Alesina et. al (2003), the GDP per capita comes from the World Bank database World Development Indicators, the Gini coefficient comes from the WIID, and state fragility comes from Marshall and Cole (2014).

Ethnically similar societies have been found to produce more generous and optimal welfare regimes (Gough, 2013). This analysis finds mixed results. Cluster one and cluster four have almost the same ethnic fractionalization numbers, but cluster one has a generous social protection for the

region, and cluster four has weak social protection levels and very poor welfare outcomes. Cluster two and cluster three also have a similar ethnic fractionalization score, one that is approximately 0.1 higher than clusters one and four.

Another finding in the literature states that economic development is an import factor for social protection strength in developing countries (Gough, 2013). This analysis has comparable findings. The GDP per capita of the first cluster is 5012.85 current \$US, while that of the second cluster is 1168.64 \$US. The third and fourth clusters have a GDP per capital of 816.73 and 867.21 \$US, respectively. Thus, while there is not a perfect linear relation between welfare state performance and income levels, the best performing cluster has a much higher income level than the following clusters, and the second best performing cluster has the second highest income level, as measured by GDP per capita. Moreover, these differences are striking; cluster one has approximately five times the income level of clusters three and four.

The last variable Gough (2013) considered that is also mentioned in this chapter is inequality. This analysis uses the Gini coefficient to measure income inequalities. While Gough (2013) found that an inverse-U shape categorized inequalities within welfare state typologies in developing countries, this chapter instead finds the opposite. The best performing cluster and the worst performing cluster, clusters one and four respectively, have the highest levels of income inequality. Clusters two and three fall somewhere in the middle, however cluster three has the lowest levels of inequality in the region. Some countries in the first cluster, notably Namibia and South Africa, have a legacy of inequalities left over from the apartheid eras in their countries. These two countries, along with Botswana, have a Gini coefficient of or above 60.0, and are pulling up the average of cluster as a whole. Cluster four faces the highest poverty levels out of the four clusters and the lowest social protection levels. This is reflected in the high levels of income inequalities as insufficient government help and redistribution are unable to mitigate the widespread poverty found in this cluster.

State fragility is the final variable is considered in this analysis. The best-performing cluster, cluster

one, has the lowest levels of state fragility. While, cluster two, which has the second best outcomes, has the highest levels of fragility. Clusters three and four are much more fragile than cluster one, and slightly less fragile than cluster two. This pattern is similar to the one that is found in the LPA regarding democracy.

4.6 Exploring the Success of Cluster one

Cluster one contains the group of countries with the most optimal welfare outcomes. While the life expectancy is low across the SSA region, including for cluster one, other indicators show that this group of countries is performing well even in comparison to global averages. As previously mentioned, the HDI average for cluster one falls in the ‘medium human development’ range. The average literacy rate for cluster one is 86.2 per cent, compared to the global average of 85.3 per cent. The average poverty gap is 5.16 per cent for cluster one, and while this is slightly higher than the global average of 3.17, clusters two through four have an average poverty gap of 12.02, 13.19, and 28.32, respectively.

A deeper analysis of profile one is briefly made in this study since profile one comes out as the strongest cluster in this analysis. This is important because, due to lack of data and an attempt at simplifying a large topic, little data are used to come to these conclusions. Clearly a welfare mix composed of only government expenditures on health and education, private health spending, civil society, and international spending does not constitute the whole picture. For example, where does spending on government programs, like non-contributory pensions, fit in to this mix?

Botswana, a long time stable democracy, gained its independence in 1966. Social services for the public first began in the urban areas, but with diamond revenues, services were soon after extended to rural areas. Some of the first programs after independence included drought and food aid, and these policy items have remained embedded in the social protection framework to this day. In addition to relief programs, primary education is an important part of government expenditure on

the public. Primary education fees were reduced in 1973, before being abolished in 1980. Secondary education fees were abolished in 1986 (Ulriksen, 2016). While historically transfer programs were less prominent, a universal old age pension and an orphan care program were introduced in 1996²², and in 2002 the government revised the Destitute Policy, originally enacted in 1980, to protect the most vulnerable citizens of Botswana (Ulriksen, 2016). The government of Botswana also covers universal health benefits²³.

Due to the universal pension for both the elderly and for orphaned children, universal health benefits, and free primary and secondary education, Botswana has achieved high welfare outcomes. These characteristics show how Botswana fits into its assigned profile.

Cabo Verde has a three-pronged social protection scheme. Social insurance is available to private and public sector workers, self-employed individuals, and household workers. The social insurance scheme is covered by contributions from individual workers, including those who are self-employed and employers. A social assistance scheme provides protection for those who are not covered by social insurance. The social assistance program is non-contributory and paid for by the government. Finally a complementary system, which is voluntary, exists for those who would like extra protection in addition to the available social insurance.

The benefits from these programs include an old age pension, sick leave, and maternity leave. The old age pension covers over 90 per cent of the elderly and since 2006, when the National Centre for Social Pensions was created, the coverage has more than doubled. The increase in pension numbers can largely be contributed by specifically targeting women and those living in rural areas (Durán-Valverde, F. and J. Borges, 2015).

Ghana has a less encompassing social protection system in place when compared to some other members of cluster one. The National Health Insurance System (NHIS) is not a universal insurance scheme. Rather, the Ghanaian social protection system is labelled as an ‘employer-liability’ system,

22. ‘Social Security Programs’, 2015

23. ‘Social Security Programs’, 2015

that relies on employer contributions for the social protection of their employed workers. This tends to leave out the unemployed and those who are not working in a formal setting, however the state, using the NHIS platform, does cover some individuals.

Other permanent and pilot social protection programs work to shelter the unemployed, orphaned, vulnerable, or disabled. The Livelihood Empowerment Against Poverty (LEAP) program is a conditional cash transfer program that, as of 2015, is operating in approximately half of the national districts in Ghana. LEAP targets extremely poor households with orphaned or vulnerable children, as well as the elderly and the disabled. Membership of the LEAP program automatically ensures that the household is signed up for the NHIS. Another pilot program, the Ghana Social Trust program, provides cash transfers to women with children under the age of five. Again, after participating in this program, the household is automatically signed up for the NHIS²⁴. Thus, while a universal social insurance or protection program has not covered all Ghanaians, the government is working to provide a minimum level of protection for its most vulnerable citizens.

Kenya has above average government spending on education and health for the sample of countries used in this analysis, but it performs worse with respect to social protection overall compared to the other countries in cluster one. A minimum floor of social protection exists, but it is applied in a piecemeal manner, meaning that there are gaps in the coverage and many of the most vulnerable in Kenya are not protected. However, the Kenyan government has been working to improve social protection coverage, and new programs, such as the School Feeding Program, are extending protection access to the poor or vulnerable ('Kenya : Developing an integrated national social protection policy', 2010). Despite the weak level of social protection, Kenya has, for the SSA sub-sample used in this chapter, above average levels of human development, an above average literacy rate, below average poverty levels, and an above average life expectancy.

Mauritius, after further analysis, also fits its assigned cluster well²⁵. Mauritius first enacted pension

24. *World Social Protection Report*, 2014

25. Ulriksen (2016) showed how the social protection regimes in Botswana and Mauritius are in fact rather different, largely due to historical and political differences between the two countries. However, despite these historical

law in 1976, and has a universal social insurance system. The basic pension, which is universal, covers all people that reside in the country. An additional earnings related pension, or social insurance benefits, which is paid for by payroll fees, can be accessed by all private and public sector employees above the age of 18. Self-employed individuals can voluntarily opt in if they choose to pay the associated contributions. The system of social insurance covers the old age pension, disability, and survivors. In addition to the previously noted benefits, Mauritians are eligible for unemployment insurance.

Maternal benefits are under the umbrella of government health expenditures, which is captured in the data used for the LPA. Women receive 12 weeks of paid maternity leave, and men who have been in 12 months of consecutive employment receive five days of paternity leave. Free neonatal medical assistance can be found in public clinics²⁶.

The profile of the Mauritian welfare state once again fits in with its classification into the first cluster. The high government spending on health and the social insurance system in place are leading to high welfare outcomes.

Namibia has a comprehensive social protection system that is separated into three different parts. The first part concerns social assistance. In Namibia there is a universal benefit for the elderly, the disabled, and war veterans. In addition to this benefit, there are grants for parents in vulnerable situations. Moreover, coverage for these schemes is high. In 2011, an estimated 92 per cent of all eligible people were receiving the universal pension for the elderly. The second part of the social protection system is social insurance. The social insurance scheme is less developed than the social assistance scheme, largely due to the high levels of informality or unemployed in Namibia. Those who are enrolled, however, have access to maternity benefits, sick leave, and disability. The final section of social protection in Namibia is the occupational and private pension fund. This scheme is voluntary. While the Namibian system lacks certain protections, like unemployment insurance,

differences, and the fact that Mauritius offers much more generous social protection systems to its citizens, the two countries both have strong universal pension systems and support for public education.

26. Social Security Programs', 2015

the strong level of social protection in Namibia has led to a dramatic reduction in poverty²⁷ and positive welfare outcomes.

South Africa has a means-tested old age grant, a child support grant, which works as a direct transfer to children up to 18 years of age, a war veteran grant, a disability grant, a foster care grant, and a care dependency grant (Pulverand and Ratichek, 2011). These benefits are reserved for the poor or vulnerable, and are paid for by the government, not employers or employees. The goals of the old age grants, as well as a child grant, is to reduce poverty, rather than provide an overall insurance system. However, despite the main goals of poverty reduction, a contributory unemployment insurance provides 38 to 58 per cent of the average earnings in the previous six months of employment for up to eight weeks²⁸.

While the South African insurance system may not be as wide reaching as some of the other profile one members, South Africa has created a social protection system that effectively helps the poor and vulnerable, and extends a certain amount of protection to formal workers. These characteristics of South African social protection have yielded positive welfare outcomes.

The relatively high, for the region, government expenditure on health (4.24 per cent of GDP, in the top five countries studied in this chapter) has led to a reversal of some previous predictions (Gough, 2004; Bevan, 2004) about the demise of South Africa. The declining life span witnessed from the HIV/AIDS epidemic, although not yet at the 1990 levels, is on the rise. The fight waged by the government of South Africa against the HIV/AIDS epidemic has drastically improved the position of South Africa. For example, the number of AIDS related deaths decreased in SSA by 39 percent between 2005 and 2013, with a decrease of 48 per cent in South Africa (The Gap Report, 2014). This improvement is contributed to a few factors²⁹. First, South Africa has increased the number of people receiving antiretroviral therapy, with plans to continue increasing access to treatments.

27. The poverty gap in Namibia decreased from 37.7 per cent in 1993/94 to 8.8 percent in 2009/10. (Namibia Social Protection Floor Assessment Report, 2014)

28. 'Social Security Programs', 2015

29. Despite these gains, South Africa still has the highest percent of infected people in the world, and accounts for 71 percent of the global population living with HIV/AIDS (The GAP Report, 2014).

Second, vulnerability of young girls and women is a phenomenon seen in South Africa and in other countries with a high incidence of the disease. After recognizing this, programs to decrease the vulnerability amongst this group emerged. Studies show that the vulnerability of the youth, especially young girls, decreased when families received regular child support payments. These payments helped mitigate the number of girls participating in transactional sex and age-disparate sex, which decreased their overall risk. While South Africa does not have a universal social insurance system like its profile members, the high government spending on effective health programs (antiretroviral treatment) and other social assistance spending, like the vulnerable child grants, is improving the national welfare outcomes.

Gabon is the only country found in the first cluster that is not considered as a democracy. Indeed, the Polity IV index value, used by this chapter to measure democracy, for Gabon is a three. However, Gabon, as of 2013, succeeded in extending health care to all socio-economic classes within the country. The Caisse Nationale d'Assurance Maladie et de Garantie Sociale (CNAMGS) began covering the poorest and most vulnerable Gabonese with full health insurance in 2008. By 2011, this health insurance had been extended to cover public sector workers, and by 2013, private workers. While all citizens receive the same package of benefits, the funding for each group comes from a different source. Health insurance for the poor and vulnerable is paid for by a 10 per cent levy on the turnover of mobile phone companies, excluding taxes, and a 1.5 per cent levy on money transfers made to outside Gabon. This system, called ROAM (Redevance Obligatoire à L'Assurance Maladie), succeeds in paying for all the health costs to this socio-economic segment³⁰. The health insurance for public servants is paid by a public servant employer fund, and the private employees are covered by a payroll tax on employers and employees in the private sector. Although there is a 10 to 20 per cent co pay on all health treatments except maternal care, which is free, that can act as a barrier to the poor, this system remains largely accessible and health treatments have increased

30. This is interesting as Gabon is a resource based economy (oil), but is not using its oil revenues to pay for social protection. However, it must be noted that Gabon is likely to face a bail out in the future due to irresponsible fiscal spending. This spending, again, does not necessarily come from the social protection programs, but rather from high payrolls for government employees (The Economist, 2016).

among the poor since its initiation (WHO, Gabon gets everyone under one social insurance roof, 2013). With the strong health care system in place and robust civil society³¹, Gabon is achieving high welfare outcomes.

While it is clear that social protection continues to evolve in Sub-Saharan Africa, along with economic and political institutions as a whole, empirical findings and anecdotal case studies show that social protection institutions are, at the very least, remaining a stable feature in the region. Profile one has consolidated and stable social protection institutions, yielding a functioning welfare state regime. Moreover, in two out of four clusters found in this analysis, social protection systems, which in SSA are characterized as a dynamic multi-source system, are providing positive welfare outcomes. As these systems continue to grow and become more embedded over time, along with target programs to improve the HIV/AIDS epidemic and reduce extreme poverty, these outcomes are predicted to continually improve.

4.7 Social Protection in Sub-Saharan Africa and the Co-Evolution of Economic and Political Institutions

4.7.1 The Welfare Clusters and Economic Coordination

Thus far, the variation in social protection, as well as the variation among welfare outcomes, has been shown in Sub-Saharan Africa. Four groups of countries emerge from a cluster analysis based off of welfare mixes that can be found in the region. In particular, one cluster emerges to show that a group of SSA countries has succeeded in creating relatively positive welfare outcomes from using a mixture of government support, which is complemented by engaged citizens and democratic policies.

This finding, however, does not create a full circle back to the main themes of this thesis. Chapters

31. The average CCSI score between 2008 and 2012 was 0.83 for Gabon, with 1.0 being the highest possible score.

two and three of this thesis showed how the type of economic system, in particular if a country had a coordinated economy, influenced political institutions. Following from this, the political institutions and economic institutions interact and can create a certain pathway of development. For example, a coordinated economy typically has a more proportional electoral rule system, and this type of nation tends to produce stronger welfare states.

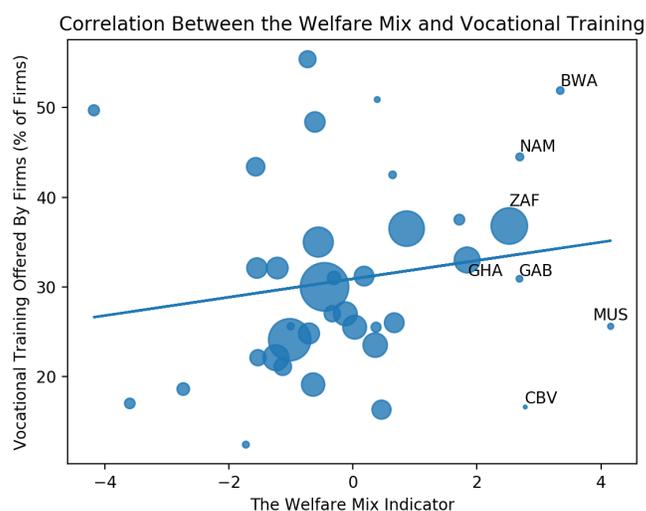
The remainder of this chapter first examines whether there is a relation between relatively generous social protection and certain key aspects of economic coordination in Sub-Saharan Africa. Then, as a final attempt to understand motivations for social protection generosity in Sub-Saharan African nations, this chapter questions why SSA governments may providing high levels of formal and informal social protection.

In order to uncover the relationship between social protection and the economy in Sub-Saharan Africa, a few important indicators are first explored. A typical indicator that helps measure economic coordination is vocational training. The variable used here is the per cent of firms offering formal training. The data on vocational training come from the Enterprise Surveys by the World Bank. Other important indicators include union density and collective bargaining. While collective bargaining statistics for SSA were not found for this study, the union density for a variety of SSA countries is considered. The data for union density come from the International Labour Organization. Moreover, a supplemental analysis on unions in 11 Sub-Saharan African countries is used to complement the previous findings of this chapter.

In order to see the relationship between economic coordination, here measured by vocational training and union density, and social protection, variables measuring the level of social protection are also included in this analysis. These variables include a welfare mix principal component, which comes from a principal component analysis computed using the welfare mix and welfare outcome variables previously explained in detail in this chapter, government expenditures on public health (as a per cent of GDP), health care expenditures not financed by household out of pocket

expenses³², and government expenditures on education (as a per cent of GDP). Government expenditures on public health and education were previously used to measure the generosity of the social protection systems in SSA, and health care expenditures not financed by household out of pocket expenses are added to this analysis because it shows how much (or little) citizens of a country can rely on the public health system to meet their medical requirements.

Figure 4.7: **Correlation Between Welfare Mix Principal Component and Vocational Training**



From figures C.13 to C.15, it is shown that there is indeed a positive relation between one indicator of a coordinated economy, vocational training, and several aspects of social protection. The countries from cluster one have been labelled³³ in the figures to show their location in each relationship shown. While a positive correlation exists between vocational training and the social protection variables, the countries from cluster one are not always toward the North-East section of the figures³⁴.

The strength of unions also is used to define a coordinated economy. In particular, union density³⁵

32. The health care expenditures not financed by household out of pocket expenses data come from the ILO database on Social Security Expenditure.

33. The countries have been labelled using country codes. BWA is Botswana, CBV is Cabo Verde, GAB is Gabon, GHA is Ghana, MUS is Mauritius, NAM is Namibia, and ZAF is South Africa. There is no data on vocational training for Kenya.

34. A country in the North-East section of the relative graphs would indicate a country with strong vocational training and a generous social protection system

35. Union density corresponds to the ratio of wage and salary earners that are in a union, divided by the total number

Figure 4.8: Correlation Between Government Spending on Public Health and Vocational Training

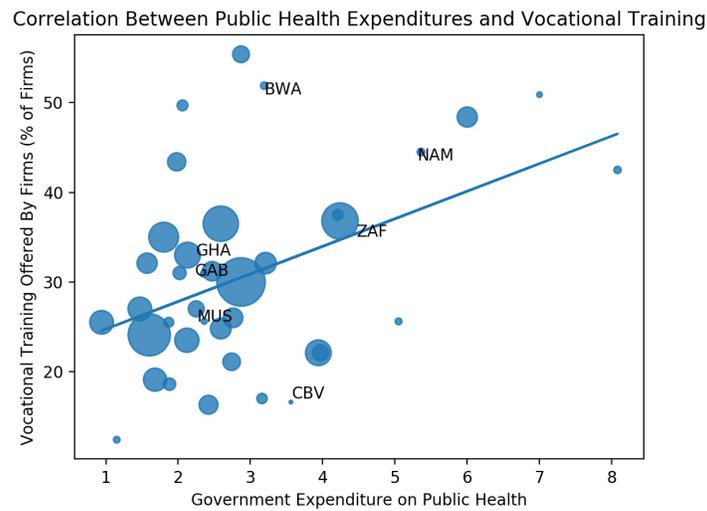


Figure 4.9: Correlation Between Health Care Expenditures not Financed by Household Out of Pocket Payments and Vocational Training

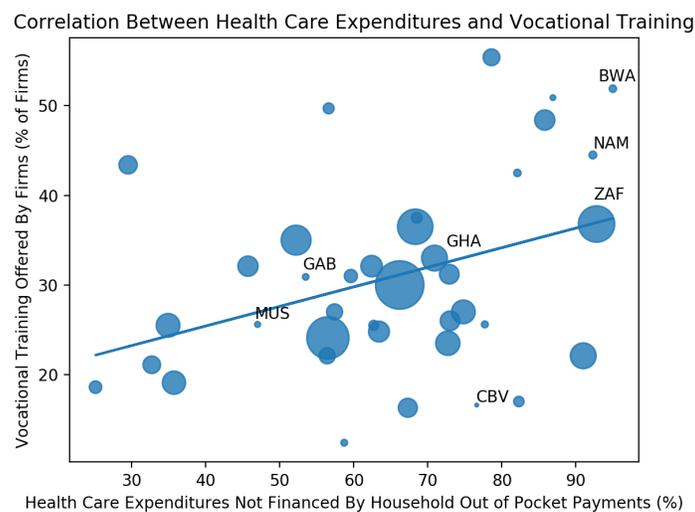
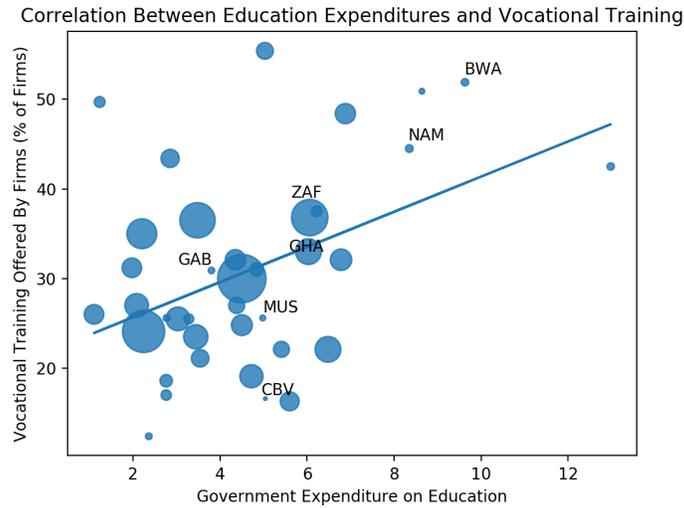
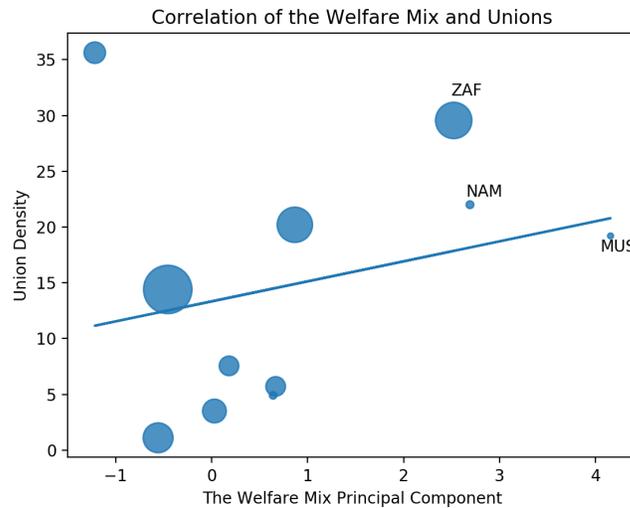


Figure 4.10: Correlation Between Government Spending on Education and Vocational Training



is a useful variable to measure the strengths of unions within a country. Despite union density measurements not being available for a very satisfactory cross section analysis of union density within SSA, figure 4.11 shows some support for the idea that union density and social protection are correlated by using the welfare mix principal component as a measure of social protection.

Figure 4.11: Correlation Between Welfare Mix Principal Component and Union Density



As the union density measurements are not available for the majority of SSA countries, a book by _____ of wage and salary earners.

Muneku (2013) covering trade unions in 11 countries³⁶ helps give insight into the role of unions in the region. For all countries covered in this book, trade unions were an important factor in pushing for independence during colonial rule. Another common theme is that with the introduction of Structural Adjustment Programs (SAPs) in the 1980s and 1990s from international organizations, such as the World Bank, in Sub-Saharan African countries, employment in the public sector, while it still is one of the main types of formal employment, has declined. This decline in public sector employment has firstly led to a decline in union density, as public sector employees in the affected countries tended to be unionized. Secondly, the decrease in public sector employment caused by the liberalization policies has not translated into increased employment in the private sector. The job growth that was envisioned with mass privatization has not occurred, and the privatization of previously owned state companies or the reduction of public employees has pushed those seeking work into the informal labour markets. That being said, despite the falling union density in the region, unions in SSA are still achieving modest gains for workers and play an important role in the labour market of a number of countries.

Five out of eight countries from cluster one were represented in this report. These five countries are Botswana, Ghana, Kenya, Namibia, and South Africa. With the exception of Kenya, these countries have numerous similarities concerning the role of unions within the domestic economic, social, and political spheres. First, in Botswana, Ghana, Namibia, and South Africa, the majority of the unionized come from the public sector. These public sector unions are crucial in securing wage increases via collective bargaining and providing non-wage benefits, like health care, maternity and paternity leave, education and training, and pensions. Interestingly, while union density has decreased across the region, including in South Africa, the public sector union in South Africa has actually increased their number of members. This seems to be a unique occurrence for the region.

From this study found in Muneku (2013), and the relationship between union density and the welfare mix shown in figure 4.11, there is evidence that unions were instrumental in bringing

36. These countries are Benin, Botswana, Ghana, Kenya, Malawi, Namibia, Nigeria, South Africa, Uganda, Zambia, and Zimbabwe.

political change, and still influence the quality of life for their workers³⁷. Economic coordination, represented in this section by union density and vocational training, influences political institutions, such as the social protection systems found within the respective countries.

4.7.2 Reasons For Social Protection Systems in Sub-Saharan Africa

The evidence provided above gives insight into why some countries in SSA provide adequate levels of social protection; unions apply pressure to both the firms and government to improve labour conditions for workers. However, since this finding is only based off of data and reports from a minority of the countries found within the region, it is worth exploring other potential reasons as to why some countries have more generous social protection systems than others in Sub-Saharan Africa.

Often the main employer of formal workers in the SSA region is the government. The level of government employment is of interest is because formal employment levels are relatively low compared to informal employment in SSA, and formal employment may be a channel by which governments appease certain cohorts of their population in order to create political stability.

Public sector wages³⁸ and certain indicators of social protection have a positive correlation, possibly suggesting that in SSA employment in the public sector is linked to the ability to obtain formal benefits. Figures 4.12 and 4.13 show evidence for this theory, as there is a positive correlation between public sector wages (as a per cent of GDP) and both the welfare mix principal component and the percentage of people above the statutory age for receiving a pension who are actually receiving a pension. This idea is further supported by the previous findings concerning the role of unions in the public sector, and how the unions have been able to improve public sector wages and access to

37. Webster, Wood, and Brookes (2006), which was cited in chapter two, states that unions in SSA may be limited in capacity. While this may be true when comparing SSA unions to those in advanced democracies, this chapter shows evidence of union effectiveness. Also, as this chapter has shown, the economic and political institutions vary greatly across SSA.

38. A more appropriate variable may rather be public sector employment, but these numbers were only available for a small number of countries in Sub-Saharan Africa. The data for the public sector wages come from a World Bank report on the Size of the Public Sector. See : Baddock, et al., 2015.

benefits.

Figure 4.12: **Correlation Between Welfare Mix Principal Component and Public Sector Wages (as a Per Cent of GDP)**

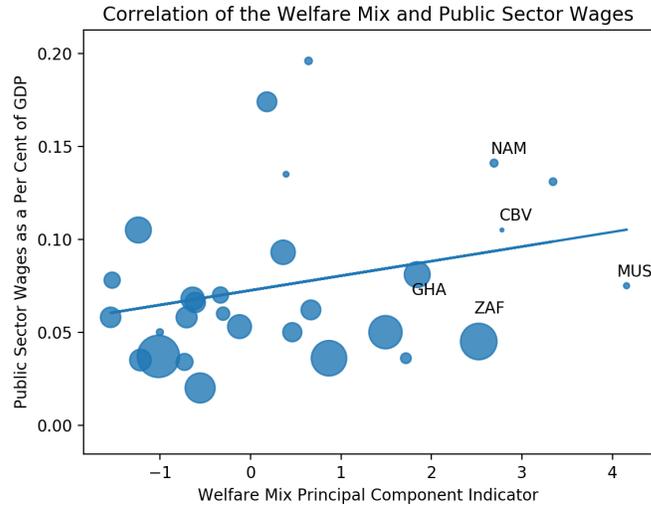
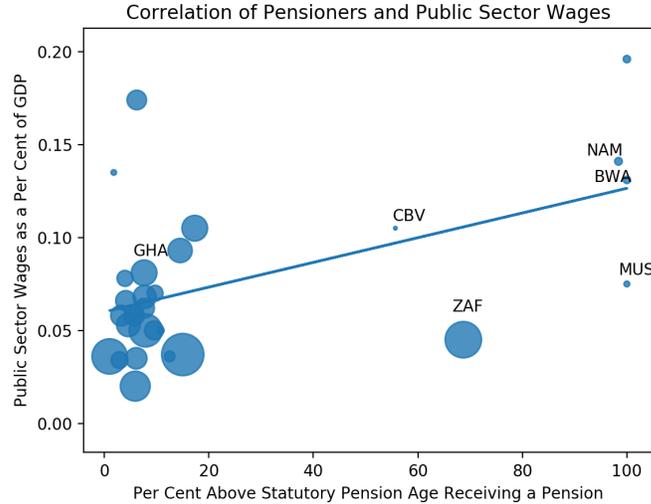


Figure 4.13: **Correlation Between Pensions and Public Sector Wages (as a Per Cent of GDP)**



However, with the push of SAPs in the 1980s and 1990s from international organizations, such as the World Bank, on Sub-Saharan African countries, employment in the public sector has declined. While precise employment statistics are difficult to find, the Varieties of Democracy (VoC) database provides an indicator that measures the ownership of the economy by the state.

A series of line graphs, seen in figures 4.14 to 4.17, show state ownership of the economy from 1960 to 2014 by cluster.

Figure 4.14: State Ownership of the Economy in Cluster One

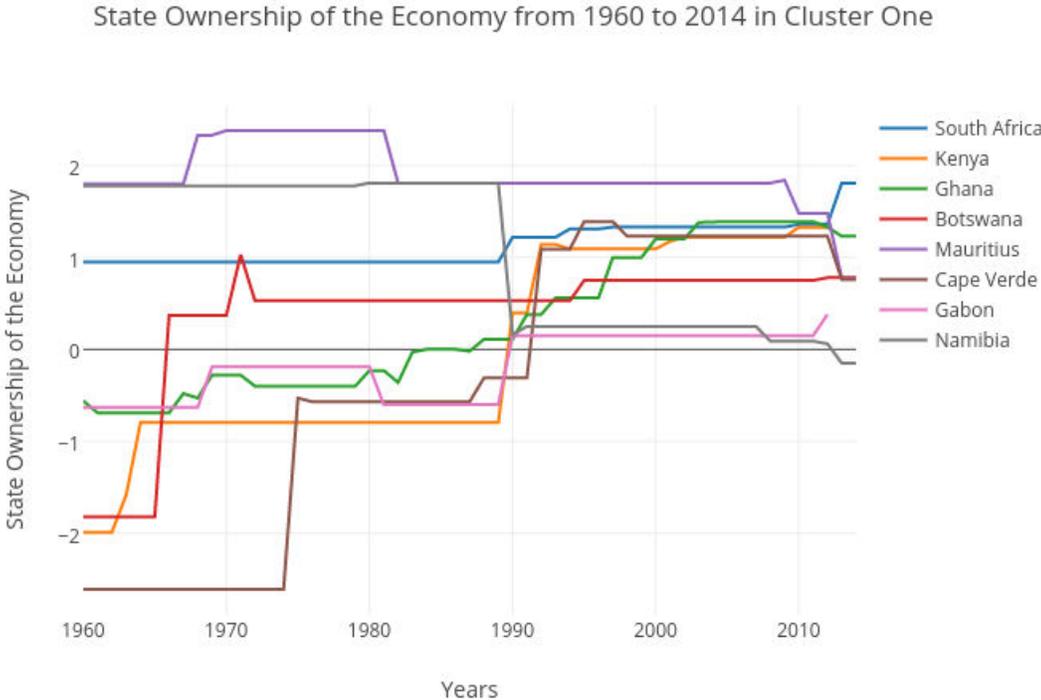
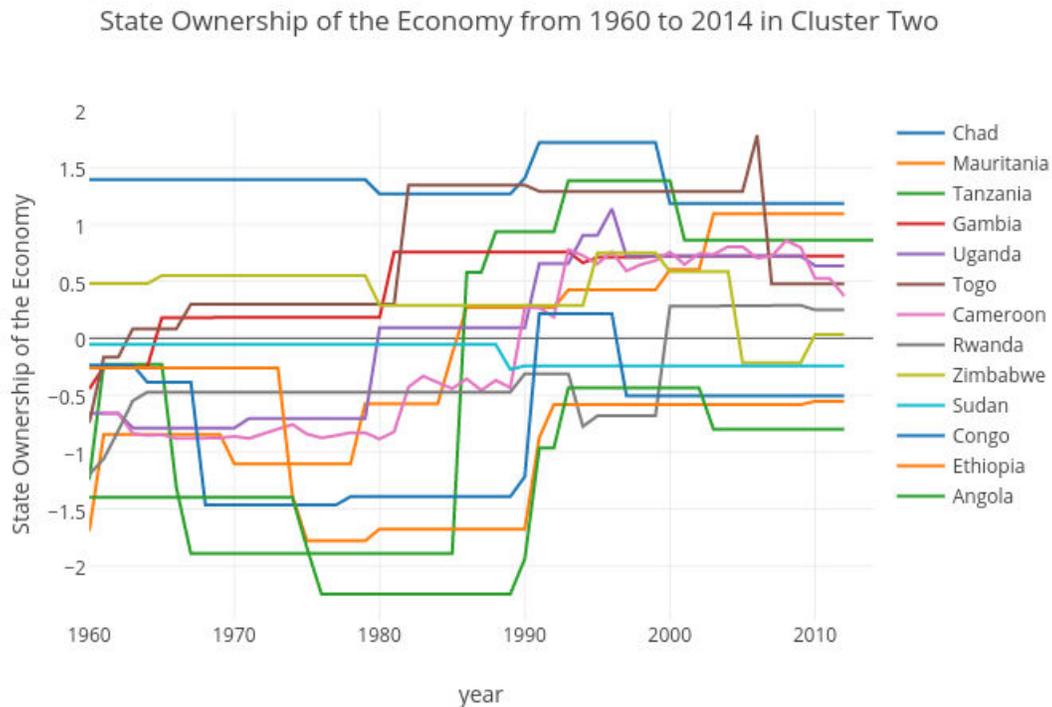


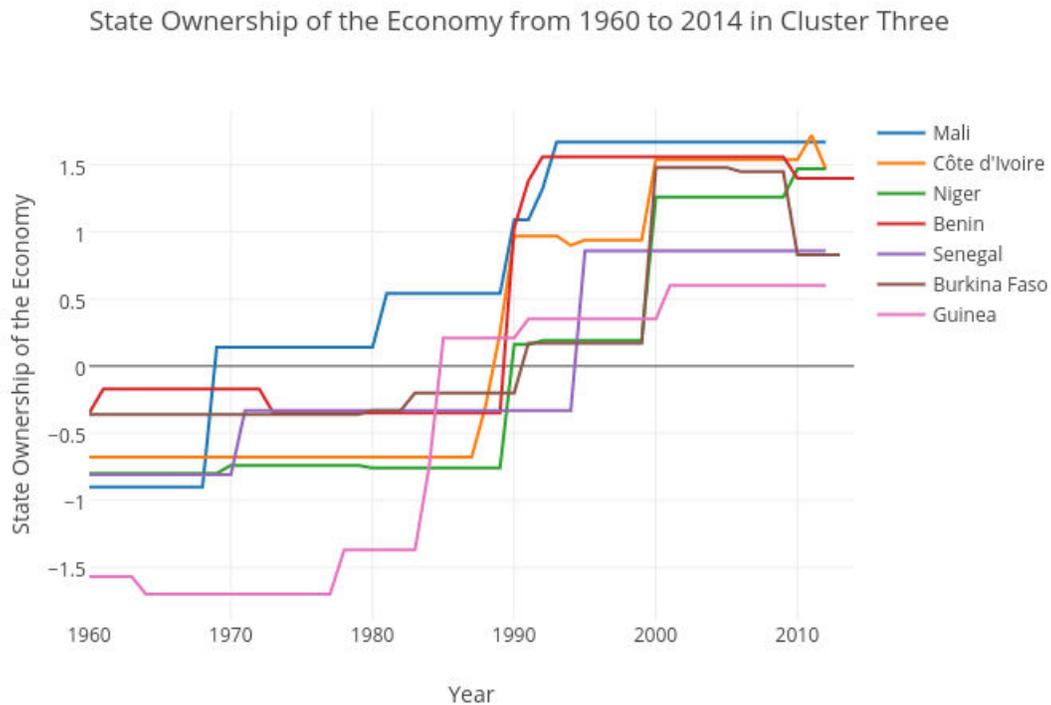
Figure 4.15: State Ownership of the Economy in Cluster Two



In the majority of cases, this ownership has decreased (a higher score indicates a more private economy) overtime. Notably, clusters three and four show clear movements towards a more privatized economy. In cluster one, the group of countries with the most successful welfare mix, the overall trend is also moving towards privatization. However, two countries, Namibia and Mauritius, have experienced an increase in state ownership. While the increase in Mauritius is slight, the increase in Namibia is more drastic, and is linked to the government nationalizing firms across the country after independence was granted. It should be noted that the nationalization still involved significant reforms, and while companies are still owned by the state, the number of government employees has decreased due to these reforms (Muneku, 2013).

There is no clear indication that government employment is a factor encouraging national stability. On the contrary, with the introduction of SAP programs, public sector employment has decreased overtime, even in countries that are political stable. For the moment, the evidence shown in this

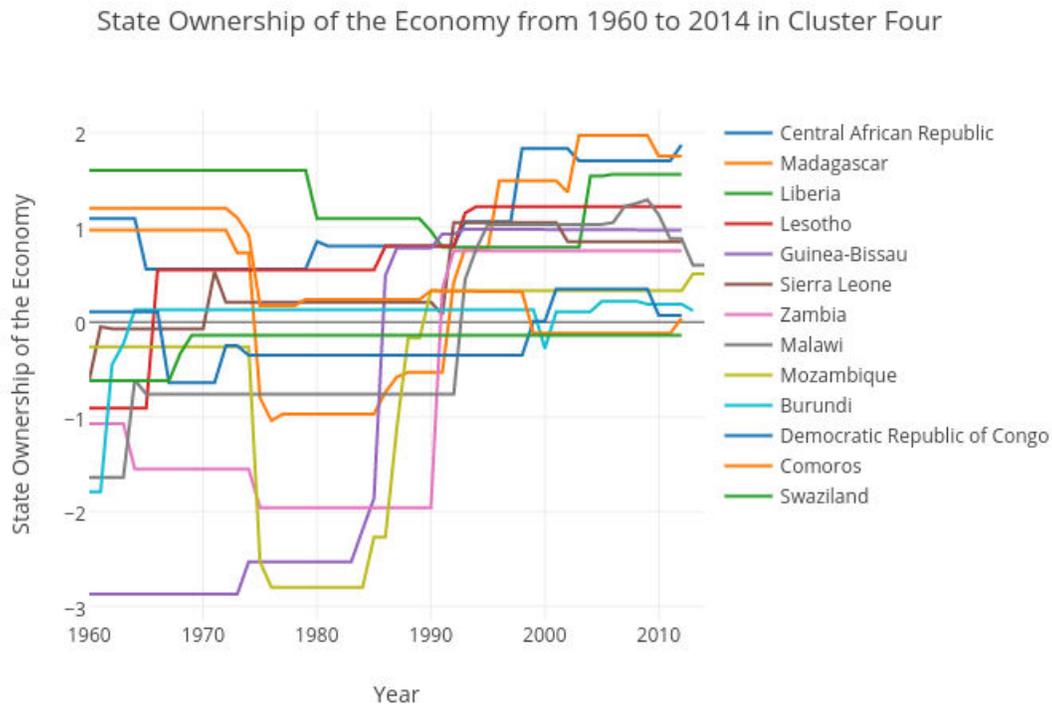
Figure 4.16: State Ownership of the Economy in Cluster Three



chapter supports the idea that in addition to a government led welfare mix³⁹, political pressure from organized unions, at least for the first cluster, is the key feature for social protection. This point should be readdressed as more data become available on both unions and public employment numbers within these countries.

39. A government led welfare mix is seen by the higher than average numbers of government expenditure for education and health for cluster one.

Figure 4.17: State Ownership of the Economy in Cluster Four



4.8 Conclusion

This chapter evaluates the current literature on social protection in Sub-Saharan Africa, and then extends it by using updated data, a latent profile analysis, and case studies. The results indicate that four different clusters can currently be found in SSA. These clusters are defined by the welfare mix of a nation and by its welfare outcomes. The welfare mix includes public expenditure on education and health, private expenditure on health, international aid receipts, international remittances, and civil society strength. The HDI, literacy levels, poverty levels, and life expectancy measure the welfare outcomes. The LPA also includes a democracy level that indicates the overall freedoms of a country in order to witness how the level of democracy fits into the picture on social protection systems in SSA.

Cluster one can be characterized as a group of democratic countries, with one exception, with above

average domestic expenditures and a strong civil society leading to positive welfare outcomes with minimal international expenditures or private health expenditure. Cluster two is comprised of a group of undemocratic countries with low domestic and international expenditure, but that still achieves moderate welfare outcomes. Cluster three is formed by a group of states with above average levels of democracy and moderate levels of domestic and international spending for the Sub-Saharan African region, yet poor welfare outcomes. Finally, cluster four is characterized by a moderately democratic group of countries with high levels of spending, especially international spending, and poor outcomes.

This chapter has neglected to assign certain labels to these clusters, and instead has relied solely on descriptions to explain each profile. This tactic was chosen because, while it is clear that some countries have adequate social protection systems that lead to positive welfare outcomes, these countries are still building their welfare regimes. Due to this, these clusters may change over time as trials become permanent programs, and permanent programs become institutionalized. Instead, what this chapter would like to emphasize is that diverse welfare mixes and resulting welfare outcomes can be found in SSA. Notably, the countries that have strong government expenditures, a strong civil society, and little reliance on international institutions have the highest welfare outcomes.

However, in order to streamline the findings of this chapter with the existing literature, some comparisons can be made. The first cluster may be likened to the category of *actual or potential welfare regimes*⁴⁰. The second cluster can be grouped as *more effective informal security regimes*. Cluster three is similar to the category of *less effective informal security regimes*. Finally, the fourth cluster resembles *externally dependent insecurity regimes*.

The LPA showed that democracy was a key component for cluster one, but provided ambiguous

40. The four typologies discussed come from the results of Gough (2004), which stem from an analysis on a wide group of developing countries. Interestingly, Kenya was found in the first cluster of actual or potential welfare regimes, and Kenya is also fitted into cluster one. However, Kenya is one of the underperforming countries in cluster one, according to this chapter, thus the make-up of countries between this chapter and the paper by Gough differ.

results with respect to the other clusters. Other findings from this study include the lack of support for the quadri-furcated welfare theory, which states that four different welfare systems exist for different socio-economic groups within one country. While there was strong not evidence found for the quadri-furcated systems, the results strongly suggest that civil society positively influences welfare outcomes in a country. This component of the welfare mix has been traditionally dismissed as an important part of the overall welfare system in SSA.

To connect the findings concerning the social protection systems of SSA back to some of the main ideas found in chapters two and three in this thesis, an additional set of some descriptive statistics show that union density and vocational training, which are aspects of a more coordinated economic system, are positively correlated to the social protection indicators used in this study. This finding provides evidence for the idea that more coordinated economies tend to produce more generous welfare states.

This chapter shows that the unique social protection mixes seen in the region have become a permanent feature of a group of SSA nations. This can be seen in the positive welfare outcomes for these countries. Governments, with the important help of civil society, have succeeded in obtaining relatively positive welfare outcomes in a number of SSA countries. However, despite these optimistic findings for some SSA countries, notably those found in cluster one, the majority of the SSA region is facing inadequate social protection and poor welfare outcomes. Even though many of these Africa countries share similar characteristics, it is critical that these nations are not lumped together before careful analytical thought, as it is clear that differences between SSA countries exist. As more data concerning union density, collective bargaining, and public sector employment becomes available for these SSA countries additional studies should be conducted to improve on the robustness of these findings.

Chapter 5

Conclusion

This thesis has provided an overview of certain key elements of comparative capitalism, namely varieties of capitalism, and the relationship between economic and political institutions. In addition, a heavy emphasis on developing economies has been added, such that this thesis lies at the intersection of developmental, institutional, and political economics. Approaching the research from this perspective has shed light on how developing economies are evolving within the framework of a grounded body of work completed on institutional and political economics.

The assumption that the main ideas of VoC theory can be applied to developing countries is carried throughout this thesis. In addition, this thesis is based largely off the work considering advanced democracies in general. However, when necessary, the ideas found in this thesis have shifted from the established literature, or incorporated a new idea to better suit the reality of developing countries. An example of this is using the welfare mix in chapter four to better portray the social protection schemes found in Sub-Saharan Africa.

An overview of the impact of economic structure on economic and political institutions, the evolution of these institutions, and how these institutions affect the welfare of nations, notably with regards to welfare outcomes is shown by this thesis. Each chapter focuses on one particular element of this big picture in order to attempt to clarify the individual roles of economic and political institutions as they affect developing countries.

Chapter two suggests that developing countries with more coordinated economies should have more proportional electoral rule systems, which are measured by the effective number of parties. The effective number of parties indicates how many different parties have representation in the legislature, thus serving as a proxy for electoral proportionality. As coordination is difficult to

measure in general, and even harder to measure for developing countries due to the lack of data available, macroeconomic independent variables are used as proxies for coordination. Particular elements of a coordinated economy affect the macro economy, so witnessing how the independent variable behaves indicates the presence or not of coordinating features in the economy.

The findings from chapter two reveal that CMEs, characterized by skilled production, widespread primary education, lower levels of unemployment, and lower levels of capitalization tend to bring about more proportional electoral systems.

Conversely, liberal economies with weak coordinating structures tend to support majoritarian electoral rule systems. Liberal economies are characterized by higher levels of education inequality, which translates into a smaller population that can be equipped with specific skills, little cooperation between the firm and the worker, and no need for an employee to gain a high level of specific skills.

The analysis for chapter two was conducted with a sample of 65 developing countries and a subsample of democracies from the original 65 countries. The results from chapter one were stronger in the democratic sample, although there was some weak support for the theories presented by this chapter for the full sample.

Chapter three continues along the idea of this subject by suggesting that these coordinated economies, which have more proportional electoral rules systems, according to chapter two, should produce more generous welfare states with higher government spending and more optimal welfare outcomes, such as low inequalities and low levels of poverty. This connective story can be explained by the co-evolution of economic and political institutions. Chapter three uses labour market variables to measure coordination on the market, or coordinated economic strength.

The results from chapter three show that effective social dialogue is influential in a generous welfare state with high levels of government spending. Vocational training and contract protection also have a positive impact on the welfare state, but this effect largely disappears once economic

development is included in the analysis.

Social dialogue was additionally important in predicting the levels of inequality within a nation, as high levels of social dialogue were positively related to higher levels of equality.

With respect to the relationship between economic coordination and poverty, the labour market variables vocational training and employee contract protection were particularly significant in the primary model. These labour market variables were negatively related to poverty, indicating that more training and stronger contract protection coincided with lower levels of poverty. However, as soon as the economic development control, GDP per capita, was added into the regression, the significance of these independent variables decreased or disappeared.

Notably, the analysis performed in chapter three included democracy. The fact of being a democracy was positively related to welfare state generosity and government spending, but did not seem to have an impact on inequalities or poverty, at least after the level of economic development was controlled for. In the final model, which includes three control variables, *democracy*, *logGDP*, and *fractionalization*, contract protection is once again significant and negatively related to poverty. In addition, all of the control variables are significant. *Democracy* and *logGDP* are negatively related to the poverty gap, while *fractionalization* is positively related to the poverty gap.

In order to understand more deeply welfare state formation and variety, along with how welfare generosity affects welfare outcomes in developing countries, chapter four takes a closer look at one region in particular, Sub-Saharan Africa. Chapter four performs a latent profile analysis that sorts 41 SSA countries into four different clusters based off of their welfare mix and welfare outcomes. A latent profile analysis, which is often referred to as mixture modeling, uncovers hidden groups within data and then assigns each country or individual to a particular group. The mean of each variable within a cluster is used to characterize the cluster.

The first cluster is characterized by above average levels of domestic public spending, low levels of private spending, low levels of international spending, and high levels of civil society. This

welfare mix leads to strong welfare outcomes. It is also the cluster with the highest democracy score, echoing some of the results from chapter two and three. The second cluster has low levels both domestic and international spending that yields moderate welfare outcomes. The third cluster has moderate levels of domestic and international spending, but poor welfare outcomes. Cluster three has above average levels of democracy. Finally, cluster four is comprised of a moderately democratic group of countries with high levels of spending, notably high levels of international spending, and poor welfare outcomes.

Within the analysis from chapter four, three key findings emerge. While the total effect of being a democracy is ambiguous with respect to social protection systems, the best performing cluster is also the most democratic one. Only one country in cluster one is not considered as a democracy. Thus, while more research is needed to solidify the findings on the effect of democracies with regard to social protection, democracy is relevant for the best performing countries in SSA. Second, civil society plays an important role in producing positive welfare state outcomes. Third, evidence for a quadri-furcated welfare mix (see Bevan, 2004), which indicates four separate welfare states for different socio-economic groups, does not emerge from this study. Importantly, the results from chapter four indicate that at least one group of countries has succeeded in providing an adequate level of social protection for the citizens. Related to this, it is clear that a variety of social protection systems exist in SSA, and it is necessary to study the region in detail, and not as a bloc of countries.

In order to connect the findings of chapter four to the rest of this thesis, chapter four then considers the role of economic coordination in shaping the positive welfare outcomes.

Overall this thesis has assumed that, until proven otherwise, the theories of comparative capitalism, varieties of capitalism, and those of the welfare state can be applied to developing countries. In doing exactly this, this thesis has shown how the CME and LME distinction in developing countries can lead to different political institutions, namely the electoral rule system. In a similar manner, this pathway continues, as these economic and political institutions co-evolve to affect the welfare state and welfare state outcomes in developing countries, thus influencing social protection programs in

developing countries.

Appendix A

Table A.1 shows a panel-corrected standard errors model, with a democratic sub-sample that considers a country democratic if the overall Polity IV score average from 1995 to 2012 is a six or above.

Table A.2 shows a cross section time series feasible generalized least square regression with the democratic sample and corrections for autocorrelation and heteroskedasticity. The force command was used to gain regression results.

Table A.3 displays the countries used for the regressions in this chapter. The name of the country is in column one, the Polity IV score is in column two, and the type of electoral rule system family is in column three, where “PR” stands for proportional representation, “MAJ” is majoritarian system, and “IN TRANS” stands for ‘in transition’. A country is considered a democracy if the Polity IV score is a six or above. The data are from the year 2012, and come from the Center for Systemic Peace. The score may differ from the rest of the years in the panel data, and the reader is encouraged to consult the Polity IV dataset for additional materials. The data for the electoral rule system family come from the International Institute for Democracy and Electoral Assistance (IDEA), except for in the case of Armenia, which comes from the Inter-Parliamentary Union.

The score for Tunisia is from 2010, as the years 2011 and 2012 were transition years for the country. Tunisia is now considered a democracy, and in 2014 had a Polity IV score of 7.

Table A.1: The determinants of the effective number of parties (PCSE model, democratic sample with threshold of democracy as the average Polity IV score from 1995 to 2012)

	Effnops (1)	Effnops (2)	Effnops (3)	Effnops(4)
Exports	-0.018** (0.008)	-0.014* (0.008)	-0.014* (0.007)	-0.014** (0.007)
Primary	0.080** (0.032)	0.084*** (0.031)	0.087*** (0.031)	0.082*** (0.030)
Manufacture	0.039 (0.029)	0.014 (0.025)	0.01 (0.024)	0.009 (0.024)
Unemployment	-0.023 (0.019)	-0.021 (0.019)	-0.028 (0.020)	-0.046** (0.020)
Capital	-0.023*** (0.009)	-0.022** (0.008)	-0.022*** (0.008)	-0.021*** (0.008)
PR		0.870** (0.370)	0.903** (0.356)	0.919*** (0.354)
Electionyear			0.038 (0.049)	-0.101 (0.079)
Overthrow				0.022** (0.009)
Constant	-3.388 (2.951)	-4.165 (2.899)	-4.38 (2.857)	-3.82 (2.837)
Observations	206	206	206	205
R-Squared	0.4821	0.4966	0.4969	0.509

Table A.1 shows the regression results for PCSE model including only those countries that scored an average of a six or higher on the Polity IV index from 1995 to 2012. The *effnops* is the dependent variable, standing for the effective number of parties. The first column is from only the five macroeconomic independent variables, the second column adds *pr*, the third column adds *electionyear*, and the fourth column adds *overthrow*. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Table A.2: **The determinants of the effective number of parties (FGLS model, democratic sample)**

	Effnops (1)	Effnops (2)	Effnops (3)	Effnops(4)
Exports	-0.017*** (0.005)	-0.012** (0.005)	-0.012** (0.005)	-0.011** (0.005)
Primary	0.035*** (0.010)	0.025** (0.011)	0.028*** (0.011)	0.029** (0.012)
Manufacture	0.113*** (0.015)	0.087*** (0.019)	0.088*** (0.019)	0.076*** (0.019)
Unemployment	-0.019 (0.013)	-0.014 (0.013)	-0.017 (0.013)	-0.039*** (0.014)
Capital	-0.010*** (0.004)	-0.009** (0.004)	-0.009*** (0.004)	-0.009** (0.004)
PR		0.663*** (0.241)	0.583** (0.244)	0.545** (0.251)
Electionyear			0.049* (0.027)	0.011 (0.040)
Overthrow				0.017*** (0.005)
Constant	-0.805 (0.793)	-0.204 (0.874)	-0.403 (0.890)	-0.119 (0.962)
Observations	242	240	240	239

Table A.2 shows the regression results for FGLS model using the democratic sample. The *effnops* is the dependent variable, standing for the effective number of parties. The first column is from only the five macroeconomic independent variables, the second column adds *pr*, the third column adds *electionyear*, and the fourth column adds *overthrow*. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Table A.3: Countries, Polity IV Scores, and Electoral Rule System Family

Country	Polity IV	Electoral Rules			
Argentina	8	PR	Mauritius	10	MAJ
Armenia	5	MIX	Mexico	8	MIX
Azerbaijan	-7	MAJ	Mongolia	10	MIX
Bangladesh	5	MAJ	Morocco	-4	PR
Bhutan	3	MAJ	Namibia	6	PR
Bolivia	7	MIX	Nepal	6	MIX
Botswana	8	MAJ	Nigeria	4	MAJ
Chile	10	PR	Pakistan	6	MIX
Colombia	7	PR	Panama	9	PR
Costa Rica	10	PR	Papua New Guinea	5	MAJ
Cote d'Ivoire	4	MAJ	Paraguay	8	PR
Croatia	9	PR	Peru	9	PR
Czech Republic	9	PR	Philippines	8	MIX
Dominican Republic	8	PR	Poland	10	PR
Ecuador	5	PR	Romania	9	MIX
El Salvador	8	PR	Russian Federation	4	PR
Estonia	9	PR	Slovak Republic	10	PR
Georgia	6	MIX	Slovenia	10	PR
Ghana	8	MAJ	South Africa	9	PR
Guatemala	8	PR	Sri Lanka	3	PR
Hungary	10	MIX	Tanzania	-1	MAJ
India	9	MAJ	Thailand	7	IN TRANS
Indonesia	8	PR	Tunisia	-4	PR
Jamaica	9	MAJ	Turkey	9	PR
Kazakhstan	-6	PR	Uganda	-1	MAJ
Kenya	8	MAJ	Ukraine	6	MIX
Kyrgyz Republic	7	PR	Uzbekistan	-9	MAJ
Latvia	8	PR	Uruguay	10	PR
Lebanon	6	MAJ	Venezuela	-3	MIX
Lithuania	10	MIX	Vietnam	-7	MAJ
Macedonia	9	PR	Zambia	7	MAJ
Malawi	6	MAJ	Zimbabwe	1	MAJ
Malaysia	6	MAJ			

Appendix B

Table B.1 defines the five labour market variables used in this analysis.

Table B.1: Independent variables, their full definitions, and their measurements

Variable (code)	Definition	Sub-variables (code)	Measurement of variable
Train (D500)	Adaption of the training supply to business needs	Share of workforce benefiting from continuous vocational training (D5000), does the vocational training provision meet business needs? (D5001)	0 = none of the work force, 4 = high proportion of the work force; 0 = not met, 4 = met
Contract (D602)	Employment contract protection	Share of permanent contracts across all types of employment contract (D6020), employment contract protection with respect to individual dismissal (D6021), employment contract protection with respect to redundancies (i.e. collective dismissal) (D6022)	0 = nil, 4 = high proportion; 0 = no protection, 4 = strong protection; 0 = no protection, 4 = strong protection
Social (D701)	Effectiveness of social dialogue	Social dialogue effectiveness within companies (D7010), social dialogue effectiveness at national level (D7011), social dialogue effectiveness at branch level (D7012), are the demands of workers' and employers' organizations taken into account by the public authorities? (D7020), do workers' organizations take into account the public interest in their demands, beyond the interest of their members? (D7021), do employers' organizations take into account the public interest in their demands, beyond the interest of their members? (D7022)	0 = very little social dialogue, 4 = effective social dialogue; 0 = very little social dialogue, 4 = effective social dialogue; 0 = very little social dialogue, 4 = effective social dialogue; 0 = no consideration, 4 = strong consideration; 0 = no consideration, 4 = strong consideration
Union (D100, D1001)*	Trade union freedoms, independence and pluralism of trade unions	Freedom to exercise the right to strike in the private sector (D1000), freedom to exercise the right to strike in the public sector and the administrations (D1001), freedom of collective bargaining in companies (D1002), freedom of trade union operation in companies (D1003), independence, in practice, of trade unions (i.e. autonomy from the state) (D1010), pluralism, in practice, of trade unions (D1011)	0 = no freedom, 4 = strong freedom; 0 = very little autonomy, 4 = significant autonomy; 0 = very little pluralism, 4 = significant pluralism
Strike (D700)	Scale of strike movements over the past 3 years	Within the public sector (D7000), within the private sector (D7001)	0 = no strikes, 4 = large-scale; 0 = no strikes, 4 = large-scale

**Union* is created by averaging trade union freedoms (D100) and independence and pluralism of trade unions (D101) together.

Table B.2 shows the results from the PCA.

Table B.2: Results from the Principal Component Analysis

Variable	Component 1
Train	0.356
Contract	0.492
Social	0.580
Union	0.543

Appendix C

Table C.1 shows the data used in chapter four and the cluster membership of each country.

Table C.2 shows the principal component for the welfare mix and outcomes used in chapter four.

The latent profile analysis was computed using the `mclust` package in R. `Mclust` is a contributed package to R that is based on finite normal mixture modeling. It is used for model-based clustering, classification, and density estimation. Each variable used in the LPA was first standardized by dividing by its respective range. This standardization technique adopted by this chapter follows the results of Milligan and Cooper (1988). Milligan and Cooper, after comparing various standardization methods, conclude that the standardization method of dividing a variable by its range leads to the most optimal recovery of the underlying cluster structure.

This chapter replaces the standard maximum likelihood estimation (MLE) technique by a maximum a posteriori (MAP) estimate due to the potential presences of singularities in the analysis. Following Fraley and Raftery (2007), the presence of singularities of some starting values, some models, and some numbers of components may lead the MLE technique to fail. The MAP estimate avoids the problems of these singularities if present within the analysis by including a prior estimate on the parameters of the model, and provides comparable results to MLE if singularities are not an issue.

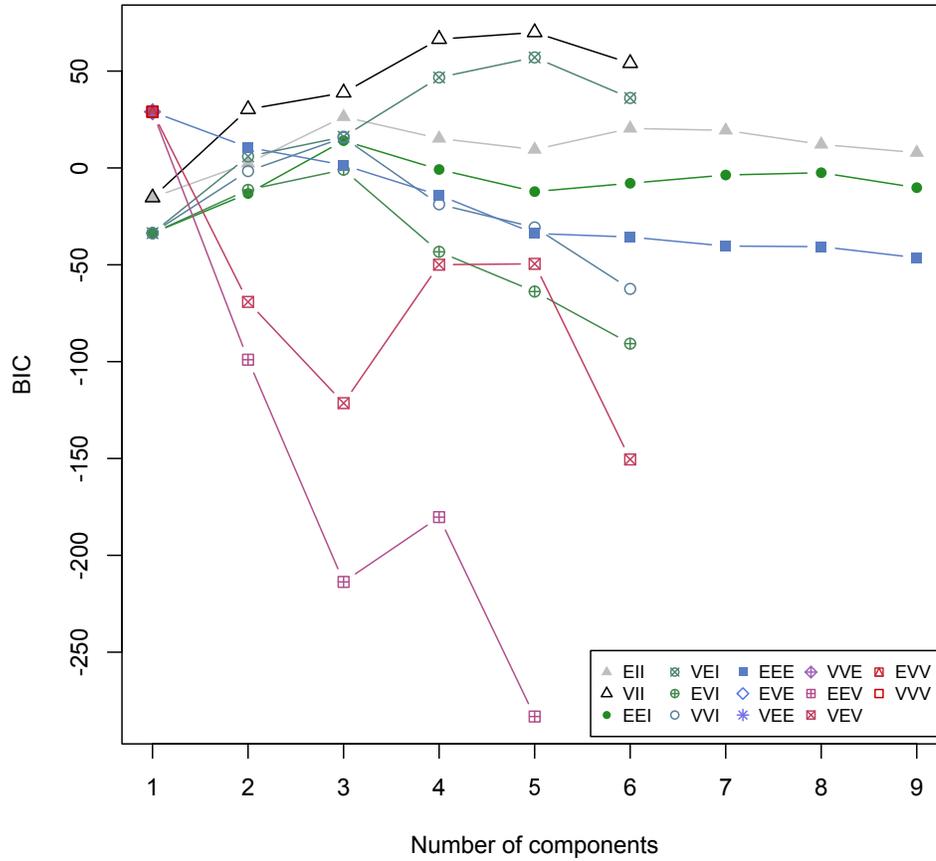
The methodology for the selection of the number of clusters is quite straightforward when using the R programming package, `mclust`. The `mclust()` function in R chooses the optimal number of clusters, while performing the cluster analysis, by selecting the highest Bayesian Information Criteria (BIC) value from a variety of different models and clusters.

Figure C.1 shows the BIC values from a one-cluster model to a nine-cluster model, and figure C.2 shows the BIC values from a one-cluster model to a nine-cluster model using the standardi-

Table C.1: List of Data and Cluster Membership

Country	Educac -ion	Public H	Private H	Remitt -ance	Aid	CCSI	HDI	Literac y	Poverty	Life	Democ -racy	Cluster
Botswana	9.63	3.19	2.22	11.39	0.63	0.94	0.698	88.22	5.78	64.43	8	1
Cabo Verde	5.04	3.56	1.2	16.11	12.23	0.93	0.646	88.47	1.85	73.15	10	1
Gabon	3.8	2.35	1.09	-1.73	0.61	0.78	0.684	82.28	1.9	64.38	3	1
Ghana	6.03	2.13	1.43	6.92	2.92	0.95	0.579	76.58	8.4	61.31	8	1
Kenya	5.51	3.5	2.22	6.02	4.34	0.86	0.548	78.02	11.7	61.58	9	1
Mauritius	4.98	2.36	2.44	0.66	0.38	0.91	0.777	90.62	0.11	74.19	10	1
Namibia	8.35	5.36	3.57	12.92	1.76	0.91	0.628	90.82	6.65	64.68	6	1
South Africa	6.06	4.24	4.55	-0.84	0.3	0.93	0.666	94.6	4.9	57.18	9	1
Angola	3.44	2.12	1.18	-1.35	0.18	0.46	0.532	70.99	9.64	52.27	-2	2
Cameroon	3.03	0.94	3.17	0.68	2.66	0.64	0.512	74.99	7.65	55.49	-4	2
Chad	2.85	1.98	1.64	7.11	2.79	0.51	0.392	40.02	15.29	51.56	-2	2
Congo	6.22	4.21	0.94	-4.06	0.75	0.53	0.591	79.31	14.86	62.31	-4	2
Ethiopia	4.5	2.87	2.02	9.37	6.45	0.26	0.442	49.03	9.04	64.04	-3	2
Gambia	2.77	5.05	2.29	3.96	11.74	0.41	0.441	55.57	17.7	60.23	-5	2
Mauritania	3.28	1.87	1.9	2.09	4.72	0.67	0.506	52.12	1.4	63.02	-2	2
Rwanda	5.03	2.87	4.66	4.54	13.07	0.48	0.483	68.33	23.69	63.97	-3	2
Sudan	2.22	1.8	6.63	1.12	1.06	0.32	0.479	58.6	3.98	63.46	-4	2
Tanzania	3.48	2.59	2.99	1.07	5.49	0.75	0.521	80.36	14.35	64.94	3	2
Togo	4.84	2.02	3.23	7.23	4.64	0.74	0.484	66.54	23.21	59.66	-2	2
Uganda	2.2	1.8	5.42	5.11	5.88	0.58	0.483	73.81	10.29	58.47	-1	2
Zimbabwe	1.97	2.47	3.97	12.61	5.34	0.45	0.509	86.87	5.17	57.5	4	2
Benin	4.38	2.25	2.34	5.35	6.19	0.91	0.48	38.45	18.98	59.51	7	3
Burkina Faso	4.5	2.59	2.37	4.22	9.14	0.94	0.402	37.75	11.07	58.59	6	3
Côte d'Ivoire	4.72	1.68	4.04	-0.89	2.7	0.87	0.462	43.27	10.3	51.56	4	3
Guinea	3.54	2.74	2.91	4.3	8.47	0.66	0.411	30.47	10.34	58.73	4	3
Mali	4.35	1.57	5.29	13.84	8.81	0.9	0.419	33.07	15.19	57.99	5	3
Niger	6.78	3.21	2.61	4.13	11.13	0.79	0.348	19.1	13.69	61.46	6	3
Senegal	5.6	2.42	2.25	12.57	7.24	0.87	0.466	55.62	12.79	66.37	7	3
Burundi	5.41	3.97	3.56	10.11	16.22	0.22	0.4	85.5	32.9	56.69	-1	4
CAR	1.23	2.06	2.14	9.17	35.84	0.71	0.35	36.75	33.08	50.66	-1	4
Comoros	5.07	2.22	4.53	29.43	11.42	0.7	0.503	78.14	3.7	63.26	9	4
DRC	2.24	1.6	2.73	5.49	7.32	0.66	0.433	77.22	39.17	58.66	5	4
Guinea Bissau	2.36	1.15	4.45	3.95	9.81	0.66	0.42	59.77	30.53	55.16	6	4
Lesotho	12.98	8.08	2.54	32.42	4.08	0.75	0.497	79.36	31.83	49.7	8	4
Liberia	2.76	3.16	6.88	54.7	36.97	0.96	0.43	47.6	28.14	60.83	6	4
Madagascar	2.08	1.47	1.57	5.42	5.46	0.86	0.51	64.66	39.23	65.09	6	4
Malawi	6.88	6	5.38	4.76	15.36	0.83	0.445	65.96	33.29	62.72	6	4
Mozambique	6.48	3.94	3.04	5.76	12.4	0.78	0.416	50.58	31.41	55.03	5	4
Sierra Leone	2.76	1.88	9.21	11.27	18.16	0.97	0.413	48.43	16.7	50.88	7	4
Swaziland	8.64	7	2.25	12.99	1.91	0.2	0.531	87.47	16.64	48.93	-9	4

Figure C.1: BIC Values for 1 to 9 Clusters



zed values of the variables and priorControl(), which controls for the potential singularities. The selected number of clusters for this chapter is shown by the highest BIC from figure 8, which is a four-cluster ‘VII’, or ‘spherical, unequal volume’, model.

Figure C.2: **BIC Values for 1 to 9 Clusters, obtained with PriorControl()**

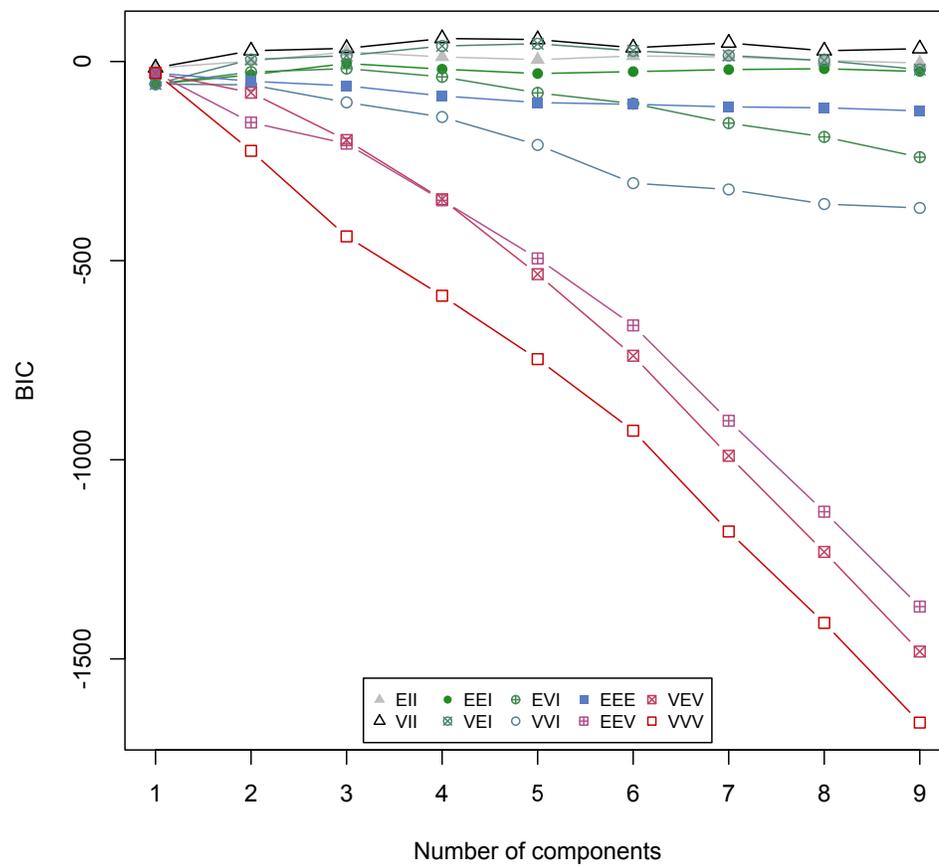


Table C.2: **Results from the principal component analysis**

Variable	Component 1
Education	0.247
Public health	0.120
Private health	-0.251
Remittance	-0.149
Aid	-0.405
CCSI	0.123
HDI	0.522
Literacy	0.398
Poverty	-0.318
Life	0.317
Democracy	0.166

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Summary

Résumé (400 mots)

Comme le monde devient plus proche et plus interdépendant, l'évolution du contexte global a besoin d'une recherche académique plus adaptée. Les théories développées pour les démocraties avancées au vingtième siècle ont besoin maintenant des additions complémentaires, ou peut-être les contreparties divergentes, d'expliquer le processus du développement pour les pays émergents.

Pour résoudre ces changements, les académiques ont créé les nouvelles théories ou étendu les théories des démocraties avancées pour les pays en développement. Cependant, malgré les progrès positifs, la nature dynamique des pays en cours de développement, économiquement et politiquement, ça veut dire que le travail n'est pas fini. La littérature sur les développements institutionnels dans le domaine d'économie politique pour les pays avancés est, tout en évoluant, bien établie. Les théories qui soutiennent la recherche dans cette thèse viennent des études sur le capitalisme comparatif et l'approche « variétés de capitalisme » sur les pays avancés.

Cette thèse donne un aperçu de l'impact de la structure économique sur les institutions économiques et politiques, l'évolution de ces institutions, et comment ces institutions affectent l'état social d'un pays, avec l'accent sur les résultats de l'état social. Après l'introduction dans le chapitre un, le chapitre deux suggère que les pays en développement avec les économies plus coordonnées devraient avoir les systèmes électoraux plus proportionnels. Le chapitre trois continue avec cette idée et suggère que les économies coordonnées, avec ses systèmes électoraux plus proportionnels selon le chapitre deux, devraient produire les états sociaux plus généreux avec les dépenses gouvernementales plus élevées, et les résultats sociaux plus optimaux, comme les inégalités plus basses et les niveaux de pauvreté plus bas. Cette histoire connective peut-être expliquée par la coévolution des institutions économiques et politiques. Afin de comprendre plus la formation et la variété d'états sociaux dans les pays en développement, le chapitre quatre ne considère qu'une région, l'Afrique Sub-Saharienne. Ce chapitre considère aussi comment la générosité de l'état social impacte les résultats de la protection sociale.

Summary (400 words)

As nations around the world become closer and increasingly interdependent, the changing global context requires a parallel advancement of academic research. Theories developed for advanced democracies in the twentieth century now require complimentary additions, or perhaps diverging counterparts, to help explain the developmental processes of developing countries.

To address these changes, scholars have created new theories or extended old ones to consider developing countries. However, despite the positive and thorough advancements thus far, the dynamic nature of countries undergoing development and transition, both economic and political, means that the work is far from finished. The literature on institutional developments in the political economy for advanced democracies is, while still evolving, well established. The theories supporting the research within this thesis rely on comparative capitalism studies and the varieties of capitalism approach focused on advanced democracies.

The purpose of this thesis is, using the key tenants of comparative capitalism and the varieties of capitalism theory, to expand this literature to developing countries. After the introduction found in chapter one, chapter two suggests that developing countries with more coordinated economies should have more proportional electoral rule systems, which are a type of political institution. Chapter three continues along the idea of this subject by suggesting that these coordinated economies, which have more proportional electoral rules systems, according to chapter two, should produce more generous welfare states with higher government spending and more optimal welfare outcomes, such as low inequalities and low levels of poverty. This connective story can be explained by the co-evolution of economic and political institutions. In order to understand more deeply welfare state formation and variety, along with how welfare generosity affects welfare outcomes in developing countries, chapter four takes a closer look at one region in particular, Sub-Saharan Africa.

Mots-clés

Économie Institutionnelle - Économie Politique - Capitalisme Comparatif - Variétés de Capitalisme

Inégalités - Pauvreté - Assistance Sociale - Protection Sociale

Économie du Développement - Économies Émergentes - Afrique Sub-Saharienne

Keywords

Institutional Economics - Political Economics - Comparative Capitalism - Varieties of Capitalism

Inequalities - Poverty - Welfare State - Social Protection

Development Economics - Emerging Economies - Sub-Saharan Africa

Résumé Etendu

Alors que les nations du monde se rapprochent et deviennent plus interdépendantes, le contexte global changeant nécessite une recherche académique plus adaptée. Les théories développées pour les démocraties avancées au vingtième siècle ont maintenant besoin d'additions complémentaires, ou peut-être de contreparties divergentes, pour expliquer les processus de développement des pays émergents.

Pour traiter ces changements, les académiques ont soit créé de nouvelles théories soit étendu d'anciennes pour les adapter aux pays en développement. Cependant, malgré d'encourageants progrès, la nature dynamique des pays en cours de développement, a la fois économiquement et politiquement, implique qu'une large travail reste à accomplir.

La littérature sur les développements institutionnels dans le domaine de l'économie politique pour les pays avancés est, tout en évoluant, bien établie. Les théories qui soutiennent cette thèse viennent d'études de capitalisme comparatif (CC) sur les pays avancés. CC, comme une discipline, considère comment les institutions venant de sphères différentes interagissent ensemble pour créer des arrangements nationaux uniques. Dans ces configurations nationales, les institutions travaillent d'une manière interdépendante pour générer des systèmes économiques. Les complémentarités institutionnelles dans ces systèmes produisent des avantages comparatifs distincts. Ces avantages comparatifs, avec les entrées économiques, déterminent comment les acteurs économiques et le gouvernement se coordonnent (Jackson et Deeg, 2008).

Une variante de CC, l'approche variétés de capitalismes (VdC), délimitée originalement par Hall et Soskice (2001), a été créé pour considérer les similarités et différences institutionnelles entre les démocraties avancées avec économies capitalistes développées. La théorie VdC adopte une approche centrée sur la firme. Cette approche montre comment les firmes développent et puis exploitent les compétences de base. La façon dont une firme manœuvre entre les différentes sphères de l'économie politique afin de trouver une solution pour ses problèmes de coordination, internes

et externes à la firme, crée des tendances économiques spécifiques au niveau national. Un pays qui dépend fortement sur les forces du marché s'appelle une économie de marché libérale (EML). Au contraire, les économies de marché coordonné (EMC) dépendent sur les relations stratégiques des hors-marché pour se coordonner avec d'autres acteurs économiques et exploiter leurs compétences de base.

La théorie VdC, et ses extensions, montre comment les archetypes idéaux de EML et EMC mènent à différents types d'institutions politiques, états sociaux, et résultats d'état sociaux. Cette littérature riche, bien qu'elle soit contestée, donne un cadre utile pour étudier l'économie politique suivie par les pays avancés.

Le but de cette thèse est d'étendre les théories CC et VdC aux pays en développement. La philosophie de cette thèse est que, tout comme pour les pays développés, il doit être des forces structurelles sous-jacentes dans l'économie politique qui dirige les pays sur des voies particulières pendant leur développement.

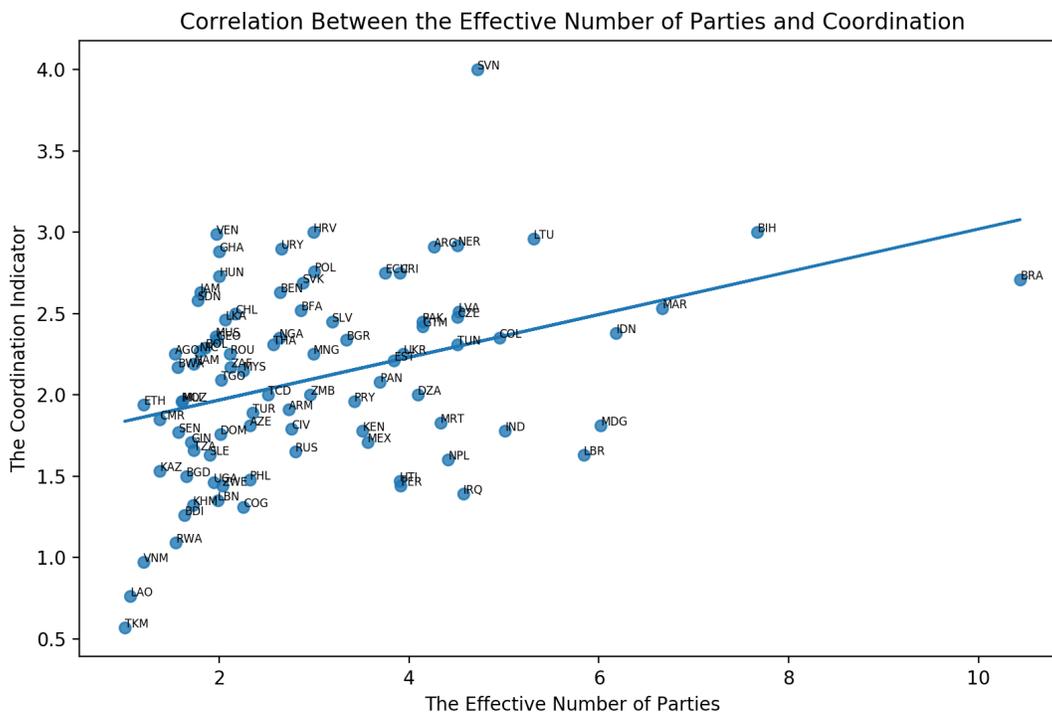
Cette thèse donne un aperçu de l'impact de la structure économique sur les institutions économiques et politiques, l'évolution de ces institutions, et comment ces institutions affectent l'état social d'un pays, avec une importance particulière accordée aux résultats de l'état social. Chaque chapitre se concentre sur un élément particulier de cet ensemble afin de clarifier les rôles individuels des institutions économique et politiques dans les pays en développement.

Après un premier chapitre introductif, le chapitre deux suggère que les pays en développement caractérisés par des économies plus coordonnées devraient avoir des systèmes électoraux plus proportionnels. Les systèmes électoraux sont mesurés par le nombre effectif de partis. Le nombre effectif de partis indique combien de partis différents sont représentés dans la législature. Ce nombre donne une approximation de la proportionnalité électorale.

Avant l'analyse empirique, quelques statistiques descriptives montrent la relation initiale entre la coordination économique et le nombre effectif de partis. Ici, la coordination est représentée par une

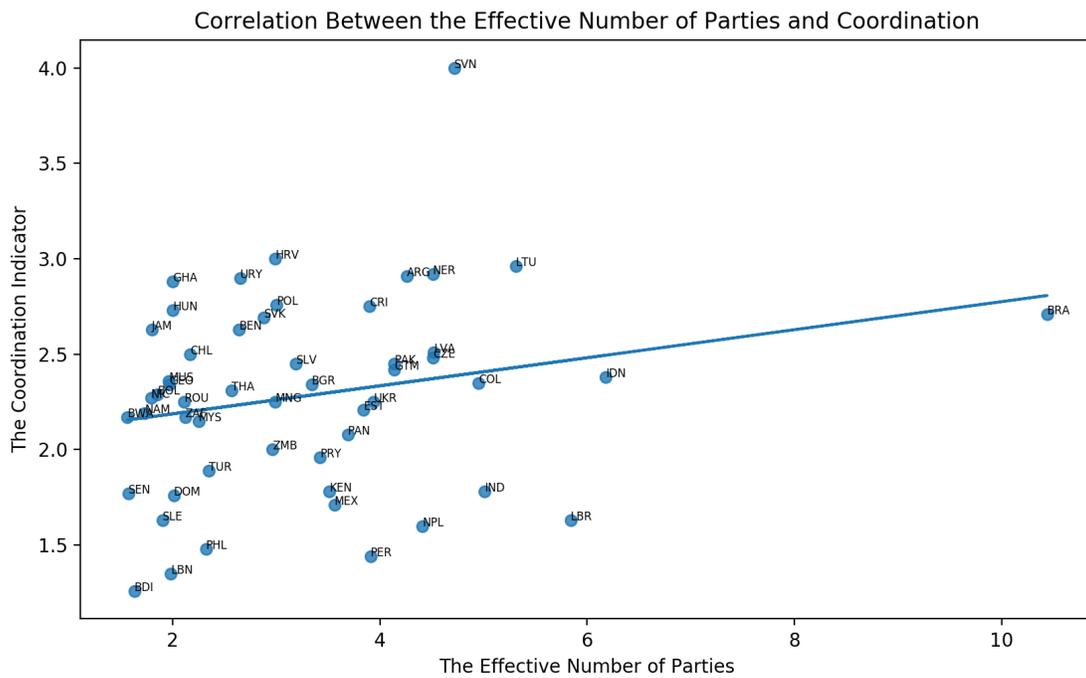
moyenne de quatre variables dans la base de données Profils Institutionnelles. Les variables sont l'indépendance et le pluralisme des syndicats, la formation professionnelle, la protection contractuelle des employés, et le dialogue social effectif. Les figures C.3 et C.4 montrent qu'il y a une relation positive entre la coordination économique et le nombre effectif de partis pour l'échantillon complet, ainsi que pour l'échantillon composé uniquement de démocraties.

Figure C.3: **Relation entre la coordination économique et le nombre effectif de partis pour l'échantillon complet**



Pour étudier cette relation plus en détail, une analyse de panel est utilisée. Comme la coordination est difficile à mesurer en général, et même plus difficile pour les pays en développement à cause d'un manque de données, le chapitre deux utilise des variables indépendantes macroéconomiques comme proxy pour la coordination. Les éléments particuliers d'une économie coordonnée affectent la macro-économie. Donc, le comportement d'une variable indépendante indique la présence ou non de traits coordonnés dans l'économie.

Figure C.4: **Relation entre la coordination économique et le nombre effectif de partis pour l'échantillon démocratique**



Il y a cinq variables indépendantes macro qui mesurent la coordination : les exports, l'éducation primaire, le niveau de manufacture, le chômage, et la capitalisation du marché. Puisque le nombre effectif de partis ne change pas chaque année comme les variables indépendantes, chapitre deux utilise un modèle avec les moyennes mobiles de cinq ans. Le retard aide aussi avec un problème potentiel d'endogénéité. Il y a également trois variables de contrôle.

Le tableau C.3 montre que la variable *exports* est négative et significative pour chaque modèle. La variable *manufacture* est positive et significative pour chaque modèle aussi.

Table C.3: **The determinants of the effective number of parties (PCSE model, full sample)**

	Effnops (1)	Effnops (2)	Effnops (3)	Effnops(4)
Exports	-0.024*** (0.009)	-0.021** (0.009)	-0.021** (0.009)	-0.021*** (0.008)
Primary	0.004 (0.014)	-0.001 (0.016)	-0.002 (0.016)	-0.008 (0.015)
Manufacture	0.111*** (0.026)	0.103*** (0.027)	0.103*** (0.027)	0.099*** (0.025)
Unemployment	0.004 (0.020)	0.005 (0.019)	0.007 (0.020)	-0.011 (0.019)
Capital	0.001 (0.009)	0.000 (0.009)	0.000 (0.009)	0.003 (0.009)
PR		0.449 (0.362)	0.456 (0.359)	0.568 (0.348)
Electionyear			-0.018 (0.054)	-0.111 (0.074)
Overthrow				0.023*** (0.009)
Constant	2.165* (1.150)	2.348** (1.133)	2.383** (1.128)	2.997*** (1.138)
Observations	293	288	288	287
R-Squared	0.3612	0.3804	0.3806	0.3852

Table C.3 shows the regression results for PCSE model using the full sample. The *effnops* is the dependent variable, standing for the effective number of parties. The first column is from only the five macroeconomic independent variables, the second column adds *pr*, the third column adds *electionyear*, and the fourth column adds *overthrow*. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Concernant l'échantillon démocratique, la variable *exports* est négative et significative, l'éducation primaire, *primary* est positive et significative, la variable *manufacture* est positive et significative, la variable *unemployment* (chômage) est négative et significative dans la dernière colonne, et la va-

riable *capital* est négative et significative dans les trois premières colonnes. Ces résultats coïncident avec les prédictions faites dans le chapitre deux. Il est important de noter que l'échantillon démocratique a eu des résultats plus forts que l'échantillon complet.

Table C.4: **The determinants of the effective number of parties (PCSE model, democratic sample)**

	Effnops (1)	Effnops (2)	Effnops (3)	Effnops(4)
Exports	-0.021** (0.008)	-0.019** (0.008)	-0.019** (0.008)	-0.019** (0.008)
Primary	0.038*** (0.014)	0.034** (0.016)	0.034** (0.016)	0.033** (0.016)
Manufacture	0.081*** (0.029)	0.079*** (0.026)	0.080*** (0.026)	0.075*** (0.026)
Unemployment	-0.030 (0.022)	-0.026 (0.019)	-0.028 (0.021)	-0.054*** (0.020)
Capital	-0.014* (0.008)	-0.014* (0.008)	-0.014* (0.008)	-0.013 (0.008)
PR		0.319 (0.379)	0.294 (0.389)	0.360 (0.379)
Electionyear			0.014 (0.051)	-0.114* (0.069)
Overthrow				0.026*** (0.008)
Constant	-0.039 (1.350)	0.046 (1.194)	0.036 (1.209)	0.386 (1.156)
Observations	244	242	242	241
R-Squared	0.4636	0.4848	0.4852	0.5011

Table C.4 shows the regression results for the PCSE model using the democratic sub-sample. The *effnops* is the dependent variable, standing for the effective number of parties. The first column is from only the five macroeconomic independent variables, the second column adds *pr*, the third column adds *electionyear*, and the fourth column adds *overthrow*. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Les résultats du chapitre deux révèlent que les EMCs, caractérisées par une production qualifiée, une éducation primaire répandue, un niveau de chômage plus bas, et un niveau de capitalisation plus bas mènent à des systèmes électoraux plus proportionnelles.

Inversement, les économies libérales avec les structures coordonnées moins fortes ont tendance à mener à un système électoral majoritaire. Les EMLs sont caractérisées par les inégalités d'éducation plus hautes, ce qui se traduit par une population plus petite qui peut être équipée de compétences spécifiques, peu de coopération entre l'entreprise et le travailleur, et aucun besoin pour un employé

d'acquérir un niveau élevé de compétences spécifiques.

L'analyse du chapitre deux est appliquée à un échantillon de 65 pays en développement et un sous-échantillon de pays démocratiques. Bien que les théories du chapitre deux s'applique sur l'échantillon complet, les résultats sont plus forts dans le sous-échantillon démocratique.

Le chapitre trois continue avec cette idée et suggère que les économies coordonnées devraient produire des états sociaux plus généreux avec de hautes dépenses gouvernementales. Aussi, ces pays devraient avoir des résultats sociaux plus optimaux, tels que des baisses d'inégalités et des niveaux de pauvreté. Cette évolution connective peut être expliquée par la co-évolution des institutions économiques et politiques. Le chapitre trois utilise les variables du marché du travail pour mesurer la coordination sur le marché. Ce chapitre considère aussi des théories de CC additionnelles, comme la théorie des ressources de pouvoir (TRP).

Avant l'analyse empirique, des statistiques descriptives donnent une première indication de la relation entre la coordination économique et les différentes variables indépendantes. L'indice de coordination a été créé avec une analyse de composantes principales (ACP) sur les quatre variables dépendantes. Les graphiques C.5 à C.8 utilisent un sous-échantillon démocratique.

La figure C.5 montre qu'il y a une relation positive entre la coordination économique et l'état social. Cette relation est aussi valable pour l'échantillon complet. La figure C.6 donne un résultat similaire, et il y a une relation positive entre la coordination économique et les dépenses gouvernementales sur la santé. Ici encore, cette relation est également valable pour l'échantillon complet.

La figure C.7 montre qu'il y a une relation négative entre la coordination économique et le coefficient de Gini. Dans l'échantillon complet, la relation était plate.

Figure C.8 montre qu'il y a une relation négative entre la coordination économique et l'écart de pauvreté. Le même résultat est valable pour l'échantillon complet.

Les résultats du chapitre trois montrent que dialogue social effectif est influent dans un état so-

Figure C.5: **La Corrélation Entre la Coordination Economique et L'état Social**

Correlation Between the Coordination Indicator and the Welfare State

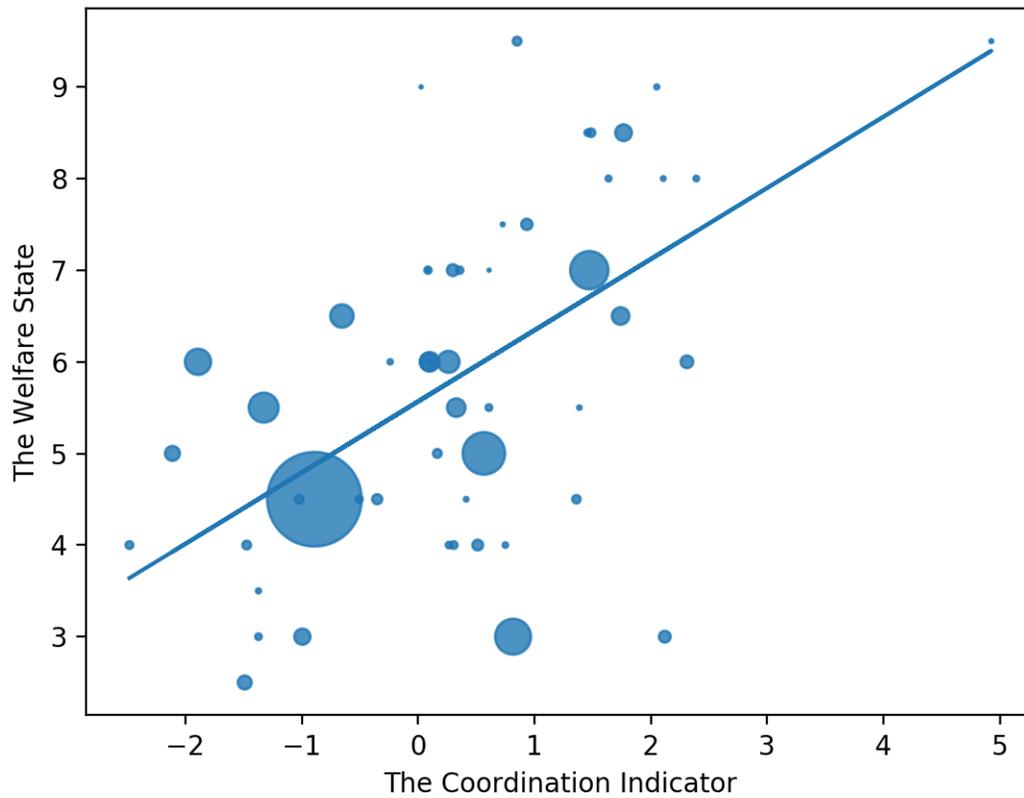


Figure C.6: **La Corrélation Entre la Coordination Economique et les Dépenses Gouvernementales sur la Santé**

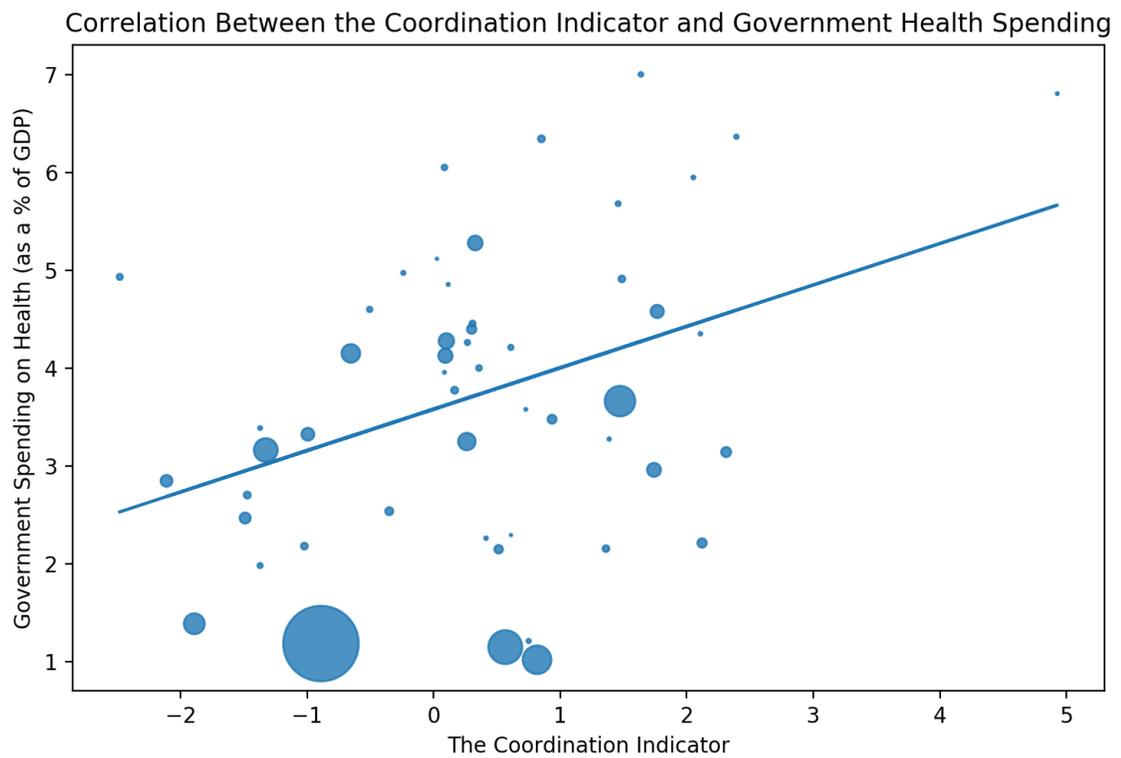


Figure C.7: La Corrélation Entre la Coordination Economique et le coefficient de Gini

Correlation Between the Coordination Indicator and the Gini Coefficient

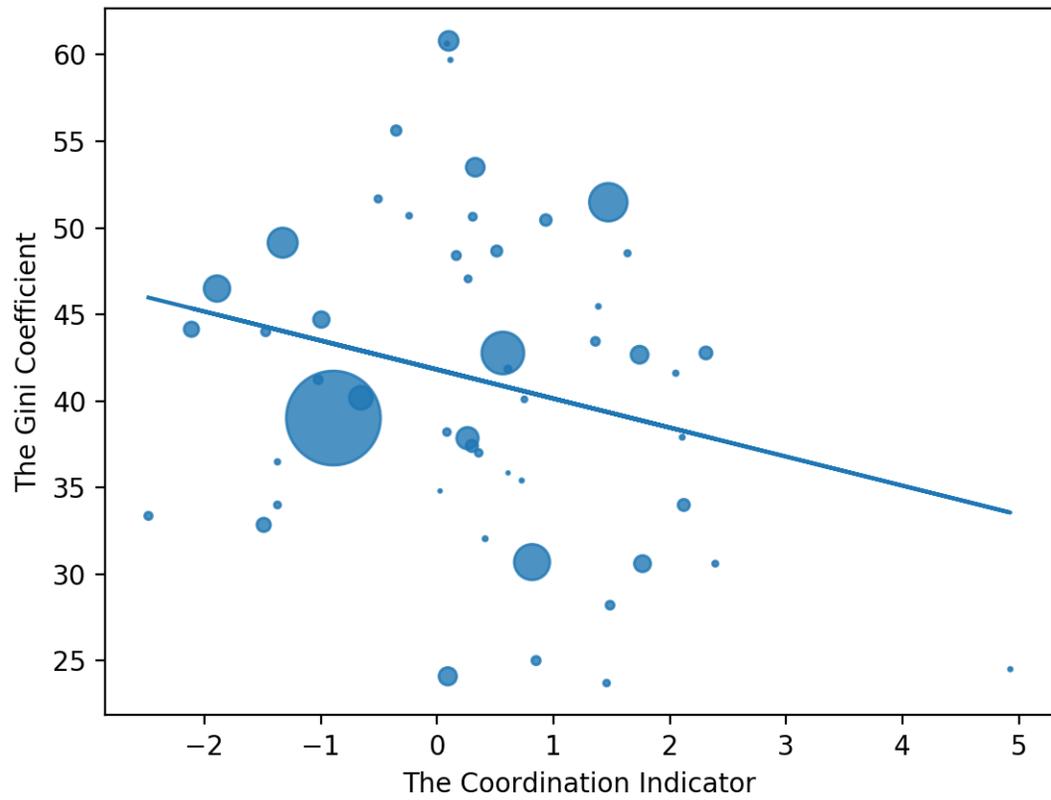
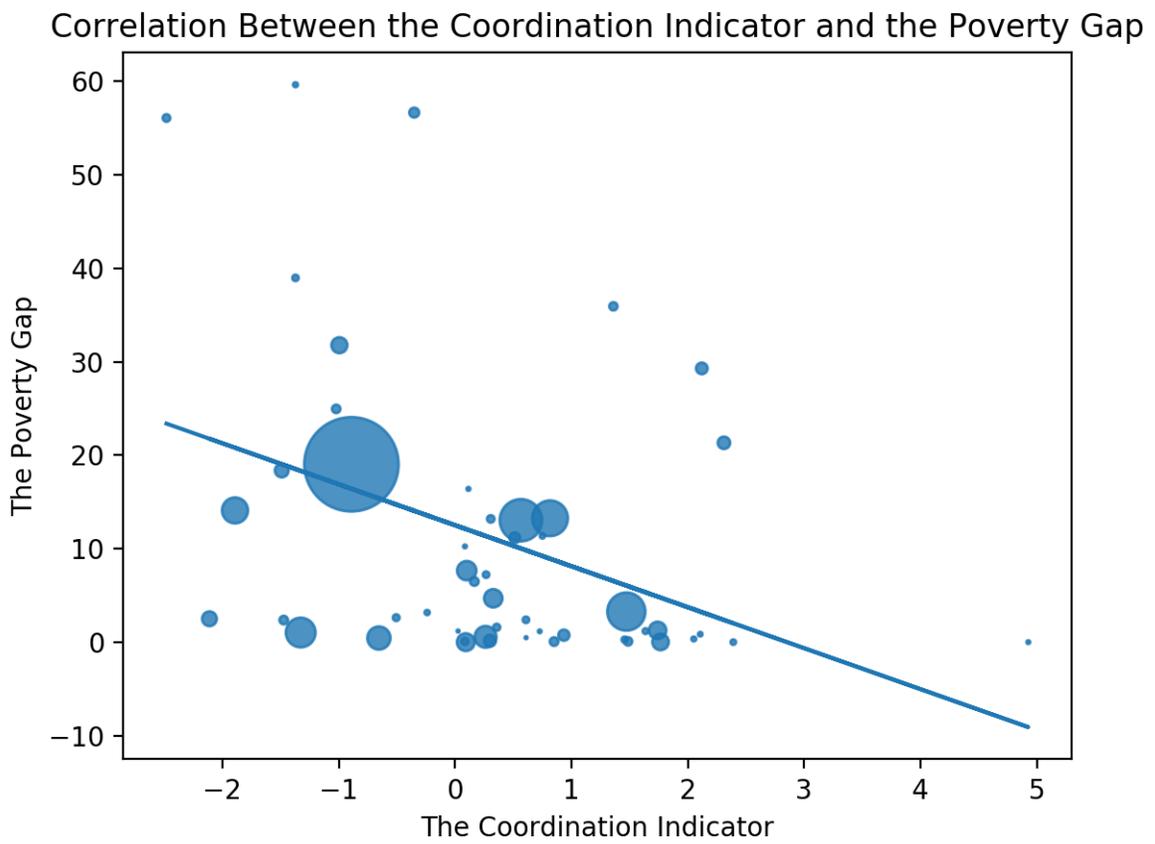


Figure C.8: **La Corrélation Entre la Coordination Economique et l'Ecart de Pauvreté**



cial généreux avec des niveaux forts de dépenses gouvernementales sur la santé. La formation professionnelle et protection contractuelle des employés impact également l'état social, mais cet effet disparaît largement après l'ajout d'un contrôle pour le développement de l'économie dans l'analyse.

Le dialogue social est également important pour le niveau des inégalités. Les niveaux de dialogue social élevés sont en effet positivement corrélés à des niveaux d'égalité plus élevés.

En ce qui concerne la relation entre la coordination de l'économie et la pauvreté, les variables du marché du travail «formation professionnelle» et «protection contractuelle des employés» sont particulièrement significatives dans le modèle primaire. Ces variables ont une corrélation négative avec la pauvreté, indiquant qu'une formation et une protection plus forte coïncide avec les niveaux de pauvreté plus bas. Toutefois, une fois que le contrôle pour le développement de l'économie, le log de PIB par habitant, est ajouté à l'analyse, la signification de ces variables diminue ou disparaît totalement.

Notamment, l'analyse du chapitre trois inclut la démocratie. Le fait d'être une démocratie a une relation positive avec la générosité de l'état social et les dépenses gouvernementales, mais il n'y a pas de relation significative avec les inégalités ou la pauvreté, du moins après que le niveau de développement de l'économie aie été ajouté dans la régression. Dans le modèle final avec trois variables de contrôle - la démocratie (*democracy*), le log de PIB par habitant, (*logGDP*), et le niveau de fractionnement (*fractionalization*) - la protection contractuelle des employés est encore significative avec une relation négative à pauvreté. En plus, toutes les variables de contrôle sont significatives. La démocratie et le log de PIB par habitant ont une relation négative avec la pauvreté, et le niveau de fractionnement a une relation positive avec la pauvreté. Les résultats sont exposés dans le tableau C.5.

Il convient de noter que le chapitre trois pourrait avoir un problème d'endogénéité. Ce chapitre postule que les variables du marché du travail influent l'état social et ses résultats, mais la relation

Table C.5: The determinants of hypotheses one through three with control variables *democracy*, *logGDP*, and *fractionalization*

	Welfare	Health	Gini	D9D1	Poverty
Train	-0.145 (0.165)	0.171 (0.239)	-1.172 (1.295)	-0.340 (0.512)	-0.661 (1.418)
Contract	-0.036 (0.145)	-0.158 (0.207)	2.100* (1.213)	0.533 (0.467)	-4.098** (1.639)
Social	0.597*** (0.181)	0.412* (0.235)	-3.843*** (1.395)	-1.580** (0.632)	0.739 (1.492)
Union	0.290* (0.151)	-0.024 (0.200)	-1.883 (1.624)	0.231 (0.531)	3.771** (1.675)
Strike	-0.290** (0.121)	-0.018 (0.166)	3.928*** (0.912)	0.981** (0.377)	-0.469 (1.046)
Democracy	0.534** (0.229)	0.762** (0.354)	3.527* (1.951)	0.815 (0.705)	-5.823** (2.621)
LogGDP	1.102*** (0.129)	0.583*** (0.153)	1.116 (0.877)	0.819** (0.374)	-7.896*** (1.096)
Fractionalization	-1.340*** (0.466)	-0.280 (0.603)	14.758*** (3.473)	4.493*** (1.324)	15.600*** (4.597)
Constant	-4.539*** (1.138)	-2.485* (1.490)	23.869*** (7.496)	-2.347 (2.819)	73.629*** (10.580)
Observations	82	84	82	81	80
R-Squared	0.826	0.485	0.376	0.256	0.780

Column one shows results using *welfare* as the dependent variable, column two shows results using *health* as the dependent variable, column three shows results using *Gini* as the dependent variable, column four shows results using *D9D1* as the dependent variable, and column five shows results using *poverty* as the dependent variable. The standard errors are in parenthesis. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

peut fonctionner dans le sens opposé. Autrement dit, il est possible que l'état social influe le marché du travail. La causalité est difficile à déterminer à cause d'un manque de données.

Afin de mieux comprendre la formation et la variété des états sociaux dans les pays en développement, le chapitre quatre ne considère qu'une région, Afrique Subsaharienne (AS). Ce chapitre considère aussi comment la générosité de l'état social influe les résultats de la protection sociale. Dans le chapitre quatre, une analyse de profil latent (APL), qui est une analyse de grappes, partage 41 pays AS en quatre grappes différentes. Les variables utilisées pour cette analyse viennent du «mix aide sociale» et les résultats d'aide sociale. Le mix aide sociale représente toutes les ressources utilisées pour la protection sociale. L'APL dévoile les groupes cachés dans les données, et puis assigne chaque individu ou pays à un groupe ou une grappe. La moyenne de chaque variable dans une grappe classe la grappe.

Avant de considérer l'APL, c'est utile de regarder quelques statistiques descriptives pour la région AS. Ces figures montrent la diversité dans la région. Pour chaque graphique, l'axe vertical est un résultat de l'état social, et l'axe horizontal est le PIB par habitant. La taille de la bulle représente la taille de la population. Les différentes couleurs représentent chaque groupe trouvé (les grappes sont définies ci-dessous). Les bulles violettes, bleues, vertes, et jaunes correspondent à la première, deuxième, troisième et quatrième grappe, respectivement.

La figure C.9 rapporte le taux d'alphabétisme pour les adultes âgés de 15 et plus. Le Niger est le pays avec le taux d'alphabétisme le plus bas, à 19.1 pourcents, et l'Afrique du Sud a le taux d'alphabétisme le plus haut, à 94.6 pourcents. La moyenne pour l'AS est 65.1 pourcents, et la moyenne pour le monde est 85.3 pourcents. Il y a huit pays en AS avec un taux d'alphabétisme plus haut que la moyenne globale.

La figure C.10 montre l'écart de pauvreté dans la région. La République de Maurice a le niveau de pauvreté le plus bas avec un écart de pauvreté à 0.11 pourcent. Madagascar est le pays avec l'écart de pauvreté le plus haut, à 39.2 pourcent. La moyenne pour la région est 39.2 pourcent, et la

Figure C.9: **Le taux d’alphabétisme pour l’Afrique Subsaharienne**

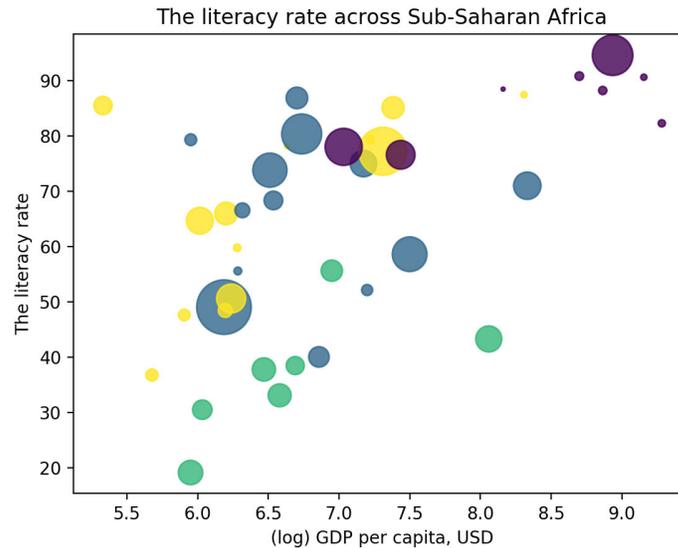


Figure C.10: L'écart de pauvreté pour l'Afrique Subsaharienne

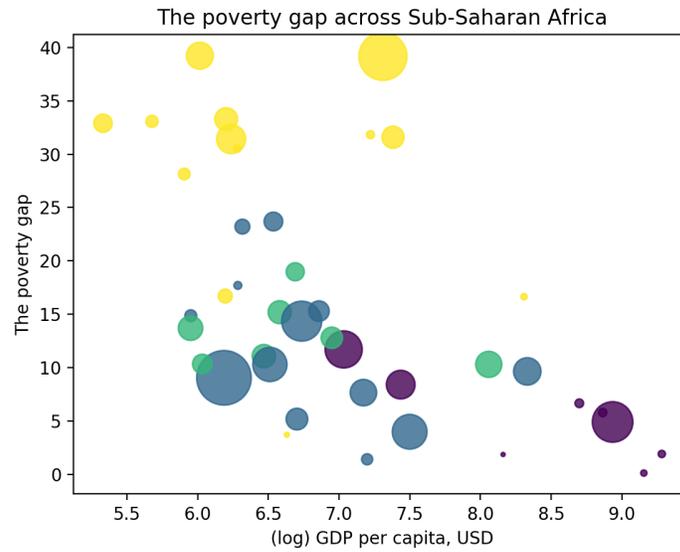


Figure C.11: L'espérance de vie pour l'Afrique Subsaharienne

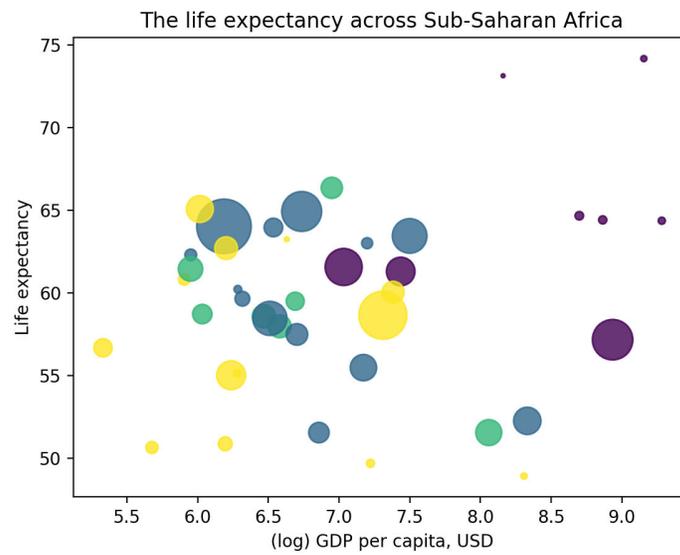
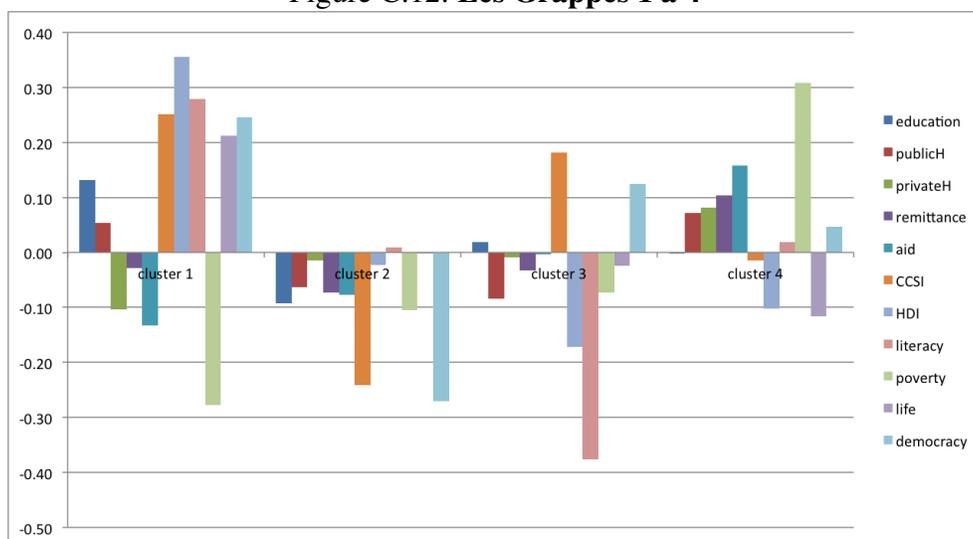


Table C.6: Les Moyennes Modifiées pour les Grappes 1 à 4

Cluster	1	2	3	4
Educate	1.56	-1.09	0.23	0.00
PublicH	0.38	-0.45	-0.6	0.53
PrivateH	-0.86	-0.12	-0.08	0.69
Remittance	-1.64	-4.27	-1.86	6.28
Aid	-4.91	-2.83	-0.14	5.93
CCSI	0.19	-0.18	0.14	-0.01
HDI	0.15	-0.01	-0.07	-0.04
Literacy	21.07	0.76	-28.31	1.53
Poverty	-10.89	-4.03	-2.86	12.27
Life	5.36	0.01	-0.58	-3.01
Democracy	4.68	-5.12	2.38	0.96

Figure C.12: Les Grappes 1 à 4



La première grappe est caractérisée par des niveaux plus hauts que la moyenne des dépenses publiques domestiques, de faibles dépenses privées domestiques, de faibles niveaux de dépenses internationales, et des niveaux élevés de société civile. Ce mix aide sociale entraîné des résultats plus positifs pour la région. Notamment, c'est la grappe avec le niveau de démocratie le plus haut. Ce résultat fait écho aux résultats des chapitres deux et trois. La deuxième grappe a des niveaux de dépenses domestiques et internationales plus bas, et des résultats sociaux modérés. La troisième grappe a des niveaux de dépenses domestiques et internationales modérés, mais de médiocres résultats sociaux. La troisième grappe a un niveau de démocratie au-dessous de la moyenne. Enfin, la quatrième grappe inclut des pays aux démocraties modérées, avec les dépenses hautes, notamment pour les dépenses internationales, et de mauvais résultats sociaux.

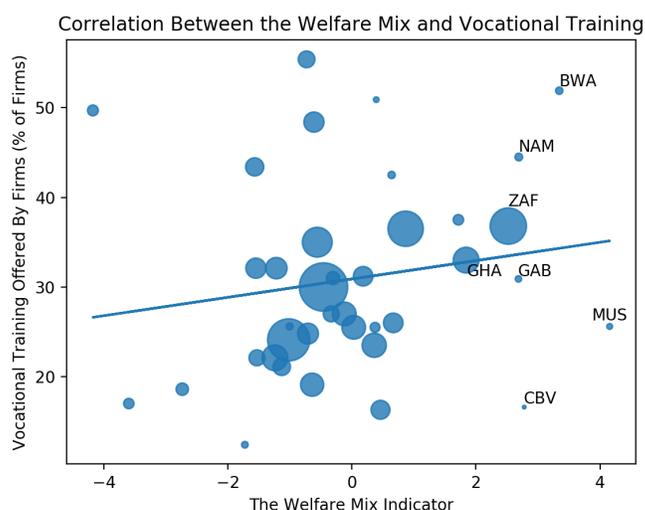
L'analyse du chapitre quatre montre trois choses. Premièrement, lorsque l'effet total de la démocratie est ambigu par rapport aux systèmes de protection sociale, la grappe avec la meilleure performance est aussi la grappe la plus démocratique. Seulement un pays dans la première grappe, Gabon, n'est pas considéré comme une démocratie. Ainsi, bien que plus de recherche soit nécessaire pour confirmer la relation entre protection sociale démocratie, la démocratie est significative pour les pays les plus performants en AS. Deuxièmement, la société civile joue un rôle important dans la production de résultats positifs, comme l'alphabétisation, la baisse de la pauvreté, et l'augmentation de l'espérance de vie. Troisièmement, les signes d'un mix aide sociale quadri-furicated (voir Bevan, 2004), qui indique quatre types d'états sociaux différents pour divers groupes socio-économiques, n'ont pas été trouvés. Notamment, les résultats du chapitre quatre indiquent qu'au moins un groupe de pays a réussi à fournir un niveau adéquat de protection sociale pour les citoyens. En plus, il n'est clair qu'une variété de systèmes de protection sociale existe en AS, et il est nécessaire d'étudier la région en détail, et pas comme un groupe de pays.

Afin de connecter les résultats du chapitre quatre avec le reste de cette thèse, le chapitre quatre considère aussi le rôle de la coordination économique et les résultats positifs de protection sociale. Cette analyse coïncide avec les résultats des chapitres précédents. La coordination économique,

représentée au chapitre quatre par la densité syndicale et la formation professionnelle, influence les institutions politiques, comme les systèmes de protection sociale dans les pays en AS.

La figure C.13 montre la relation entre un indice de l'état social (créé par ACP avec toutes les variables trouvées dans le mix aide sociale) et la formation professionnelle. Les huit pays dans la première grappe sont annotés (BWA pour Botswana, CBV pour Cabo Verde, GAB pour Gabon, GHA pour Ghana, MUS pour la république de Maurice, NAM pour Namibia, et ZAF pour l'Afrique du Sud). Il y a une relation positive entre l'état social et la formation professionnelle.

Figure C.13: **La Corrélation Entre L'indice de l'Etat Sociale et La Formation Professionnelle**



La figure C.14 montre la corrélation entre les dépenses publiques sur la santé et la formation professionnelle. Il y a une relation positive qui indique que les dépenses publiques sur la santé sont corrélées avec la formation professionnelle.

La figure C.15 démontre la relation entre les dépenses publiques sur l'éducation et la formation professionnelle. Comme la relation trouvée dans figure 12, il y a aussi une corrélation positive entre les dépenses publiques sur l'éducation et la formation professionnelle.

Donc, les statistiques descriptives dans les figures C.13 à C.15 connectent les idées développées en chapitre quatre avec le reste de cette thèse. En AS, il y a aussi les rapports entre l'état social et la

Figure C.14: **La Corrélation Entre les Dépenses Publiques sur la Santé et la Formation Professionnelle**

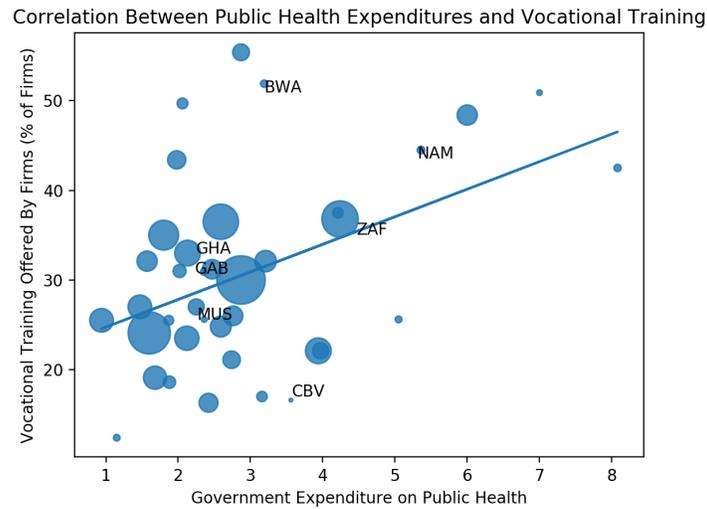
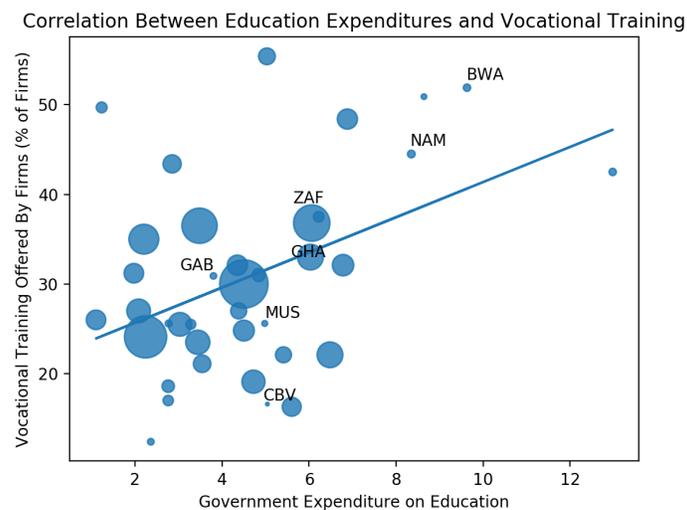


Figure C.15: **La Corrélation Entre les Dépenses Publiques sur l'Éducation et la Formation Professionnelle**



coordination dans l'économie.

Cette thèse fournie décrit comment la structure de l'économie, comprenant des institutions économiques variées, influe les institutions politiques. Puis, cette thèse considère comment les institutions économiques et politiques évoluent ensemble et suivent différents chemins pour atteindre leurs objectifs. Finalement, cette thèse considère comment cette co-évolution peut influencer l'état social, et ses résultats.