MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Democracy and Income Inequality Through the Lens of the Informal Sector: A Comparison Between OECD and Non-OECD Countries"

verfasst von / submitted by

Pimsuda Viriyakosol

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of

Master of Arts (MA)

Wien 2020 / Vienna 2020

Studienkennzahl lt. Studienblatt / degree programme code as it appears on the student record sheet:	A 066 824
Studienrichtung lt. Studienblatt / degree programme as it appears on the student record sheet:	Masterstudium Politikwissenschaft
Betreut von / Supervisor:	Priv. Doz. David F. J. Campbell

Table of Contents

Tables

Figures

1. Introduction

Democratization has been the issue of interest for political scientists especially since democracy is settled in many countries after World War II. Despite the absence of a concrete term of 'democracy', democracy in the 21st century is often interpreted positively. Democracy in the present day has place its essence on the concepts of justice, fairness and liberty. Precisely, the term 'democracy' in the present day has slightly deviated from its original term in the ancient Greek language. The democracy in the ancient Greek era underlines the role of the citizens participating politics. On this point, different philosophers share diverse opinions on democracy. On the one side, philosophers such as Aristotle perceives democracy as an unstable political system. He argues that because the majority of the citizens are poor and under-educated, therefore decisions made by these people tend to be a result from political persuasions. Consequently, democracy is chaotic and unstable as the opinions of the poor sway easily. On the other side, philosophers like Solon and Demosthenes do believe in the knowledge of the simple people. They contend that having the people participating politics on regular basis helps themselves making a rational choice in democracy. In spite of the different point of view, the essence of democracy in the ancient Greek is that the simple people are able to make decision contributing to the common goods. They call this 'equality'

Equality in the modern democracy, on the other hand, goes beyond the framework of suffrages or a simple participation like in the ancient Greek. Democracy in the modern time serves opportunities for people of disadvantaged groups to raise their voice in the society in order to receive fair treatments. These are often claims for equal rights in regards of different kinds of freedom, and justice. Thus, equality in this regard of the modern time is founded on moral judgements i.e. what is right and wrong, what is fair and unfair. However, the problem is that a moral judgement is disputable, especially on the aggregate level. For example, some people might consider a same-sex marriage right and some consider it wrong. Utilitarianists like Jeremy Bentham and John Stuart Mill suggested that what is right and fair for a society depends on the level of pleasure after deducting suffering of members of the society. Immanuel Kant emphasized the heterogeneity of pleasures of individuals. He contended that what is right is a happiness which does not impair the happiness of other people. Although different kind of pleasures were underlined, Kant's moral judgement could still be problematic when considering on a national level. On this ground, John Rawl suggested that fairness should be considered in relation to equality under the 'veil of ignorance'. Behind the veil of ignorance, every person is without any kind of priority, whether priority at birth such as being born in an

elite class or priority after birth such as being rich. Rawl emphasized that only when a policy is considered under the veil of ignorance could the policy be judged as fair.

In the present day, the moral judgement of democracy became more significant as liberal democracy gains its dominance in many countries. Regarding economic inequality, people living under liberal economies are becoming more sceptic whether it contributes to a fair and just income distribution as their governments usually promise. Politically speaking, democracy should allow people to raise their voice when inequality arise in the society. From this, a democratic government would apply an appropriate distribution schemes to eradicate the inequality. However, the levels of income inequality still appear to be increasing correspondingly to the levels of democracy in some countries. On this ground, political theorists are interested in searching for the explanation of this counter-intuitive phenomenon.

1.1 Research Question: Exploratory Research

There are numbers of researches focusing on the effect of economic development and economic inequality on democratization. While the conclusion of how economic factors correlate with democratization is still contending, most researches assume taxation playing a key role in income distribution in democracies. Meltzer and Richard (1981) established a model of income distribution preference. In this model, the authors suggested that those people whose income is below the median voter's would prefer more distribution policies. On the contrary, those whose income is above the median voter's would prefer less distribution policies. The appropriate level of distribution for a government, in order to be re-elected, is at the level between the income of the median voter and the mean income. The M-R model serves as the cornerstone of distribution politics. However, many theorists point out that the model is lack of considerations in some aspects. Austen-Smith and Banks (1988) criticized the model of being malfunction in proportional system as the system represent the preference of the median voter less than a majoritarian system which the model is founded on. On this ground, Beramendi and Anderson (2008) asserted that distribution in European countries are more egalitarian than in USA. Noted that most European countries employ some forms of proportional representation system, while USA applies rather a majoritarian system.

Apart from different systems of political representation, governments might still have other difficulties employing the M-R model in their distribution policies. Pzeworski and Wallerstein (1982) suggested that redistribution in developing countries is more difficult as the

governments in these countries will have to deal with a trade-off between contributing equality and their national economic growth. To elaborate, the government would have to choose between imposing low tax rates to attract investment into the country. In so doing, they lose the chance of maximizing their national budget and pursuing some redistribution policies. However, the authors asserted that a union confederation could play the role of a mediator between labours who prefer redistribution and investors who prefer lower tax rates. As a union confederation could negotiate wages and welfare for labour, a company has more budget from the wage bargaining through the union confederation to re-invest in the economy. In addition, Iversen and Wren (1998) suspected that countries have to face the trade-off in three dimensions. A country has to choose to contribute two out of the three following dimensions: equality, development and fiscal discipline. They proposed that a government choose the contribution according to its political ideology: social democratic ideology, Christian democratic ideology, or neo-liberal ideology.

Another perspective on the issue of democratization is to seek its explanation from the class conflict. That inequality is due to the unequal economic status between the poor and the rich, many theorists emphasize the role of the middle class as the mediator of interest conflict between the upper and the lower income earners. Therefore, Weber prognosticated that class conflict would bring changes to the society. However, it is the middle class who is the decisive factor to democratization. Ansell and Samuels (2010) had a similar conclusion. They proposed that democratization is more likely to occur when there is an inequality in the industrial sector rather than in the property sector. In other words, democratization tends to take place when the middle class or the bourgeoisie possess industrial companies more than the aristocrats. Nonetheless, Acemoglu and Robinson (2006) argued that the middle-class acts rather as a buffer of interests than being a decisive factor.

There are some other explanations to why and how democratization take place in some countries and not in some countries. For example, Ross (2001) suspected that democratization is more difficult in resource-rich countries. However, most of the abovementioned theories often overlook situations in developing countries where income inequality is usually associated with the size of the informal economy. Precisely, measurements of wealth distribution for these theories, such as Gini coefficients and Theil indices, employ only the formal share of income as the key factor. To this extent, assuming the correlation between democracy, democratization and income inequality disregarding the informal economy could yield bias results for the case of developing countries. The issue is of importance considering that many developing

democracies usually having a great share of the informal economy. This argument is explicitly exposed by Hart (1973) as follows:

> "When half of the urban labour force falls outside the organised labour market, how can we continue to be satisfied with indicators of economic performance which ignore their productive activities?" (pp. 88)

To this point, this research is developed from the realm of income inequality and democracy by including the effect of the informal economy into consideration. As this is rather an exploratory research, the causation is beyond the framework. Hence, the main aim of this research is to discover if further researches on inequality and democracy should take the size of the informal sector into consideration. Whether the size of the informal sector has a significant impact on the relationship between income inequality and democratization or not is the research question for this study.

1.2   Hypothesis: possible explanations of the informal sector in relation to inequality

To analyst the impact of the size of the informal sector on the relationship between income inequality and democratization likelihood, a relationship between the informal sector and income inequality must be examined beforehand. For this, two theories of the origin of the informal sector provide different hypotheses on how the sector and income inequality are related. Lewis (1955) suggested there was a surplus of labour when the industrialization began. In this time, labours received low wages. Hence, income inequality is increasing and the size of the informal sector is decreasing. When enterprises absorbed labours fully, labours are strong enough to raise their demand of higher wages. In this phase, income inequality is decreasing while the informal sector is non-exited or marginalized.

Hart (1973) proposed a different theory from Lewis. He argued that the size of that informal sector develops in parallel to the development of the formal economy. To be precise, he concerned that the minimum wage is too low in the formal economy. Consequently, labours are forced to enter the informal sector to maximize their disposable income. On this ground, income inequality and the size of the informal sector are anticipated to develop in accordance. From the two theories, the beginning assumption is that there is a relationship between the size of the informal sector and income inequality.

4

In addition to the former two theories, Rosser et al. (2000), Bhattacharya (2011) and Ghecham (2017) performed economic models which reveal a positive relationship between the size of the informal sector and income inequality. Rosser et al. concluded that the informal sector reduces governmental tax revenue. Consequently, the government has to reduce social welfares which lead to higher income inequality. Bhattacharya discovered that the discrepancy between the income in the formal sector and the informal sector determines the Gini coefficient[1]. Ghecham found that the informal sector might act as a safety net for a lower income group as the income gap within the group is reduced. Nevertheless, the gap between the lower income group and the top earners is widen. From these theories, the first hypothesis for this research is that there is a positive relationship between the size of the informal sector and income inequality.

Many theorists also discovered a positive relationship between income inequality and democratization likelihood. They focused on redistributive policies as the determiner of income inequality and established their theories on the ground of the function of taxation. Although, early theorists such as Lipset (1959), Pzeworski and Limongi (1997) and Boix and Strokes (2003), emphasize the influence of economic development, rather than inequality, on democratization, some of them, such as Boix and Strokes, found that economic inequality strongly contributes to the chance of democratization and decreases the opportunity of democratic breakdown.

Theorists such as Meltzer and Richard (1981) were convinced of the demand for redistribution as the determinant of successful redistributive policies. The authors introduced an economic model (M-R model) based on the median voter theorem. The model suggests that the median voter is the decisive voter as their vote hold relatively stronger predicting power to the election outcome than other voters'. Furthermore, it proposes that extending suffrages increases the demand for redistribution as it alters the position of the median voter. Therefore, democracy, denoted as extended suffrages, is positively correlated with the demand for redistribution and income inequality since the suffragists are usually in the lower-income group.

Other theorists accentuated the role of class conflicts. In the same vain as the M-R model, theorists on the class conflict issue highlighted the role of the middle-class. Max Weber and Ansell and Samuels (2010) regarded the middle-class as the decisive factor for

---

[1] Gini coefficient is a measure of income distribution or, less commonly, wealth distribution among a population. The coefficient ranges from 0 to 1, with 0 representing perfect equality and 1 representing perfect inequality (Investopedia Staff, 3 February 2020)

democratization. Weber proposed that when there is a class conflict between the aristocrats and the lower-class, the bourgeois entrepreneur (i.e. the middle-class) will have to agree to the interest of the lower-class to some extent in order to change from aristocracy to democracy i.e. induce democratization. Ansell and Samuels suggested similarly. However, they pointed out that democratization is more likely to happen when inequality is high in the industrial sector than in the property sector.

The class-conflict standpoint of Acemoglu and Robinson (2006) is deviated from the three aforementioned theorists. They contended that the middle-class acts rather as a buffer between the interests of the aristocrats and the lower-class than to be decisive on their own. Hence, growing middle-class promotes democratization. Furthermore, they proposed that democratization like likely to happen when inequality reaches an adequate level. If inequality is too low, there is no motive to rebel. If inequality is too high, the conflict of interests is too strong to be reconciled and the aristocrats tend to use forces to stay in power.

Whether considering the relationship between inequality and democratization in the demand for redistribution approach or the class-conflict approach, most of the theorists found a positive correlation. Accordingly, the second hypothesis for this research is that there is a positive correlation between income inequality and democratization likelihood.

If the transitive law in logic mathematic applies to the first and the second hypotheses, the size of the informal sector could be predicted positively correlated with the democratization likelihood. To illustrate, the transitive law explains the relationship between subject *a*, *b* and *c* in set *X*, where *R* is a homogeneous relation in the set *X*. If *aRb* and *bRc*, then one may assume *aRc*. In the case of the two aforementioned hypotheses for this research, *a* represents the size of the informal sector, *b* represents income inequality, and *c* represents democratization likelihood. As of the first hypothesis that the size of the informal sector is positively correlated with income inequality, and of the second hypothesis that income inequality is positively correlated with democratization likelihood, then the third hypothesis could be assumed that the size of the informal sector is positively correlated with democratization likelihood. The summary of the three hypotheses the following:

> H_1: The size of the informal sector is positively correlated with income inequality
>
> H_2: income inequality is positively correlated with democratization likelihood

H_3: the size of the informal sector is positively correlated with democratization likelihood

1.3   The Structure of this Research

To yield the answer, this paper is divided into 9 parts. This introduction is considered the first part. The next part is the conceptualization. In this second part, normative terms such as 'democracy' and 'equality' will be clarified in order to avoid hermeneutic problems though out the paper. In short, this part denotes the term 'liberal democracy' for this research as a completion of institutional features (e.g. free and fair election, and a clear separation of institution of check-and-balance) and some normative features (e.g. basic civil rights including civil liberties, and freedom of expression).

The third part of this paper examine studies on the relationship between economic development, income inequality and liberal democratization. Different theories on the relationship between economic factors and democratization are introduced in this part. However, they are in some way insufficient to explain democratization in developing countries, especially in Asia. The lack of explanatory power brings about concerns on other possibilities to examine the economic effect on democratization. This research proposes including the influence of the informal economy into the consideration.

The fourth part presents the definition of the informal sector and different assumptions of the origin of income inequality. These assumptions are founded on industrialization theories which underline the inter-sector labour migration between the formal sector (or the urban industrial sector) and the informal sector (or the agricultural sector). For example, the assumption of Kuznets (1955) and Lewis (1955) that early increased income inequality arises from migration of labour from agricultural sector to industrial sector as industrial development soar. However, Kuznets explained that income inequality is later decreased as the next generation of those migrants could adapted themselves to city-life condition and become "the growing power of the urban lower-income group" who demand "a variety of protective and supportive legislation" (p.17). i.e. redistributive tax regimen, while Lewis proposes that income inequality decreased when there is no more labour surplus in the agricultural sector which give bargaining power to labour in the industrial sector for better welfares. The assumptions are important ideas linking the informal sector to inequality.

The fifth to seventh part involves description of methodologies employed in this research. To test institutional influences on the size of the informal sector and democratization, this research analyse data from 10 different countries. These countries include 5 OECD countries (Greece, Hungary, Poland, South Korea, and Turkey) and 5 non-OECD countries (India, Indonesia, Niger, South Africa, and Thailand). As quantitative studies on the informal sector is scant, indicator for the size of the informal sector is limited to some countries and some period. Therefore, Multiple-Indicator-Multiple-Causes modelling (MIMIC) and benchmarking techniques from Schneider, Buehn and Montenegro (2010) are applied to predict the size of the informal sector in the 10 countries during 1995 to 2019. Afterward, the size of the informal sector is compared with the top 1% share income (as an indicator for income inequality) in each countries overtime to verify assumptions on inter-sector labour migration from part four. Additionally, historical analysis will be performed to examine political influences on the informal sector and income inequality. Lastly, regression analyses are executed to explore whether the size of the informal sector is significant in the relationship between income inequality and democratization and its survival. The eight part describes and discusses the findings. The last part provides conclusions and discussions for further researches.

2. Conceptual Background

This part intends to conceptualize the definition of democracy employing a historical analysis. The method permits an insight comprehension of democracy from its origin in the Greek era and its development to the modern notion of liberal democracy. Along this process, the difference between notions of democracy as an institution and democratic values will be identified in the first section. In addition, the irreconcilable value between which of the traditional democracy and which of the liberal concept will be illustrated in the end of this part. The second section will be devoted to embody the morality of liberal democracy. In other words, in what way could liberal democracy be considered positively. In this section, some concepts such as equality, rights and fairness will be brought up to the discussion as a conceptual foundation of the morality of liberal democracy. Amalgamating the two aforementioned sections, the last section will portray the definition of liberal democracy for this research.

2.1   Democracy: Historical Analysis

The term democracy comes from Greek language which means to rule by the (simple) people. Despite the development of social conditions over time, the Greek notion of democracy has always been projected as the fundamental concept of modern democracy. It is acknowledged that democracy was originated from the Greek term of `demokratia`. Howbeit, a detailed comparison between Greek's demokratia and the present notion of democracy has been scarcely pointed out. The reason for this could be that there are many distinctions between Greek democracies among themselves. Additionally, we lack of concrete mutual definition of democracy in our time. Hence, this part will be devoted to clarifying the aforementioned issues.

I.   The Classic Democracy

 "First, in an investigation of the impact of ancient democracy on modern political thought an important -but often disregarded- distinction to make is between the tradition of Greek democracy in general and the tradition of Athenian democracy in particular" (Hansen 2005, p.7) One discrepancy is the perspective toward democracy. Aristotle described Greek democracy in his book *Politics* in a rather negative way. He perceived democracy as a system which promotes the interest of the poor. Two main reasons were given to support his perception. The first reason was that political rights should be made available for those who devotes themselves to politics i.e. rich people who has free time, not to mention education which is limited to rich. Aristotle thought that it was better to have a well-trained person to decide what is good for the society and promotes the well-being of the members of the society. The second reason was the instability of the Athenian open-to-all assembly. The assembly was "[a] popular assembly, to which all citizens were invited, met regularly, and provide a forum for debating and voting on the most important matters" (Robinson 2004, p.3). As there were no political parties in the assembly, thus decisions were based on power to convince. Consequently, decision from the assembly were unpredictable and did not generate a firm policy direction, but rather depended on the poor as they held a majority.

In contrast to Aristotle's' perspective, Solon, the father of Athenian democracy, Demosthenes and other Athenian statesmen discerned democracy as the rule of the whole of the people. The rationale behind this perspective was that "[t]he Athenians did believe in the intelligence and sound judgement of the ordinary citizen…[and] that regular participation in the political institutions made citizens sufficiently knowledgeable to make well-informed political

decisions…" (Hansen 2005, p.48). To this extent, the open-to-all characteristics of Athenian assembly provided the true will of the whole people, regardless their social statuses.

Another divergence between the perceived general Greek democracy and Athenian democracy is the political institutional system. Greek consisted of many city states (poleis), which each one practices different political systems in diverse institutional layers. For example, Sparta employed a hierarchical way of democratic politics. Sparta's political institutions could be separated into three branches: executive branch (The Ephor), juridical branch (The Gerousia) and legislative branch (The Assembly). Members of the Ephor and the Gerousia were elected (often were aristocrats), while the Assembly was opened to all male citizens. In practice, the Assembly possessed less power than the Ephor and the Gerousia because their discussion agendas were limited by the latter two institutions. Athens also implemented this three-dimensions of political institutions. Nonetheless, the distinction between Athens and Sparta is the selection of the institutions' member. Unlike elections in Sparta, members of the political institutions in Athens were chosen by lot. To this point, one might argue that Athenians were forced to participate politics. However, they were not forced to involve in high politics.

To sum up, the distinctions between Athenian democracy and democracy in other Greek states exhibit that the concept of democracy in our modern time seems to stem from Athenian democratic norms (democracy is the rule of the people as a whole). However, the present democratic institutional structure tends to be deviated to the Spartan hierarchical characteristics. This accumulation appears to be a large discussion issue of representation system in existing democracies.

II.   The Modern Democracy

After the conquest of Romans over Greek, the political spectrum was set in the direction of monarchy and aristocracy. The Roman political institutional structure, which appeared to resemble a representative democracy in the present time, owned the idea behind governing system based on a negative assumption on human nature; human is violent and self-interested. The presumption gave legitimacy to veterans of the elite class to hold the power of governing. At the same time, it constituted a negative view of democracy as an unstable and chaotic system.

It was not until the eighteenth century when the Athenian concept of democracy began to thrive among political scholars. During this period, reformists around western countries compelled kings and elites to distribute their political power. The American Revolutionary War manifests

the repudiation of the British taxation in American colonies without representatives of the inhabitants in the Parliament of Great Britain. In like manner, The French Revolution exemplifies the rejection of a representative system rigged in a favour of the ruling elites. These plights are harbingers of a representative system of which political rights encompasses other social classes rather than royal families and noblemen. Despite all of these situations, the word 'democracy' was neither revealed in the Declaration of Independence (1776), the Constitution of the United States of America (1789), nor the Bill of Rights (1791).

The post-revolution period resembles republicanism rather than democracy. That the political power belongs to the plebeians, and not monarchies, is the central characteristics of the period, not least being that the concept of liberty has been safely entrenched behind republicanism. It is the fact that, although political power was in the hands of simple people, not every citizen at the time had the right to vote. What is more, those who were able vote could not determine politicians who stood in decisive positions e.g. the President and the Senate. Nonetheless, what citizens equally possess was the basic rights to protect individuals from the states i.e. the rights to property, to liberty and to life. These universal rights are inscribed in the United States Bill of Rights and the French Declaration of the Rights of Man and the of the Citizen (1789).

 "The term 'democracy', in its modern sense, came into use during the course of the nineteenth century to describe a system of representative government in which the representatives are chosen by free competitive elections and most male citizens are entitled to vote" (Birch 1993, p.46). The term spread its practice quantitatively and qualitatively. From 1809 to 1900, the number of democracies rose from 1, which is the United States of America, to 10 countries (Roser 2018). The numbers include mostly western countries, Australia and New Zealand. Additionally, female suffrage was finally established in the late of the century. To this point, modern democracy has come closer to the ideal of representative democracy; as a statement provided by Abraham Lincoln (1980: 231) that democracy is "the government of the people, by the people, and for the people".

The liberal concept, which had been cached in republicanism, later revealed itself in compliance with democracy. In contrast to the expanding legitimacy of the modern democracy, the limitation of democracy based on the liberal concept are implied on government' actions in many areas. For instance, freedom of speech limits governmental influence on expressing individual's opinion. Another obvious restraint of the governmental power is an obstruction of

governmental influence in economic market i.e. bolstering liberal economy-the laissez-faire. On this point, democracy, liberty and economy are implicitly pertinent.

"The aim of the ancient ['s political virtue] was the sharing of social power among the citizens of the same fatherland: this is what they called liberty. The aim of the moderns is the enjoyment of security in private pleasures; and they call liberty the guarantee accorded by institutions to these pleasures" (Constant 2011 [1816], p.10). The affiliation between the term 'democracy' and political institutions in the modern time seems to be tied with elements such as government, rights, and liberty; having democratic political institutions and the government protecting liberties of private lives of the citizens. In this manner, liberty is the rights of the citizens.

Focusing on the point of the rights of private lives, the notion of liberal democracy was exercised in a socio-cultural perspective. In general. liberal democracy is a system to guarantee individual freedom. Paradoxically, the freedom could be curbed by a group of people in a name of legislation. Hence, most liberal democracies attempt to prevent the monopoly of restraining individual freedom by establishing mechanism of check-and-balance, i.e. political institutions other than governments.

The consequence of contrastive combination between the term 'liberal' and 'democracy', seems to be a double-edged sword. On the one hand, the system of check-and-balance might function effectively. In this case, the political power remains with the people who participate political activities. Also, the system forfends monopoly of political power which weakens possibilities of governmental corruption. Theoretically, this is the expected outcome of liberal democracy. On the other hand, political institutions under the liberal democratic framework may results other types of corruptions in the reality. For example, the constitutional court issues laws which benefit specific interest groups. The aforementioned problem of liberal democracy entices democratic theorists to re-examine the term 'democracy'. On this ground, the challenges of the theorists in the modern time are not only how to transfer political power to the people and to refrain from oligarchy, but also how to maintain equality and equity of the simple people in a liberal society.

III.   The Post-Modern Democracy

Post-modern democratic theorists are sceptical about universalism of liberal democracy. Many of them determine that the term 'liberal' and 'democracy' are paradoxical to each other. For instance, Mouffe (2000) described the paradox as a contradiction between equality/popular sovereignty as the core value of traditional democracy and individual liberty/human rights

which is the focus of liberal tradition. In her book "The Democratic Paradox", she emphasized that the two concepts cannot be associated without giving up some part of one or the other. The accentuation was exposed in the introduction of the book as follows:

> A central argument of this book is that it is vital for democratic politics to understand that liberal democracy results from the articulation of two logics which are incompatible in the last instance and that there is no way in which they could be perfectly reconciled (Mouffe 2000, p.5).

Albeit the wariness of the term 'democracy', post-modern theorists seem to be biased to the liberal tradition when designing democracy. Indeed, it appears that the theorists acquiesce to give value to fundamental individual rights of every person as the source of democratic power. One illustration of this bias was drawn by Robert A. Dahl in his book 'On Democracy'. Dahl explained that individuals have 'intrinsic equality'. That is a principle which "insist[s] that one person's life, liberty, and happiness is not intrinsically superior or inferior to the life, liberty and happiness of any other" (Dahl 1998, p. 65). However, post-modern theorists' proposals on democracy were diverse on the issue of how to reach the popular sovereignty on the basis of individual rights. In general, two proposals of ways to reach popular sovereignty were introduced. These proposals included 'deliberative democracy', which focuses on people reaching a certain level of consensus, and 'democracy of dissent'.

Deliberative democracy emphasizes the public's self-governing i.e. people participating political public forums to discuss public topics concerning their common interests. Through public discussions and deliberations, consensus or common decisions are expected as the output. Barber (1984) introduced seven conditions for the public's self-governing in order to build a strong democracy. These conditions include: no legitimacy for specific persons, transforming conflicts to cooperation, and sensitivity to changing polity, for example. Habermas (1996) proposed two-track deliberative forums for governing a community. These forums contain an informal and a formal forum. The informal forum is a public forum for discussion to enhance social integration. The function of the formal forum is to set the public discussion's agenda, make rational and neutral decisions, and convince or explain the reason of decision to the public. Phillips (1991) and Young (1999) also favour deliberative politics. The authors underline the importance of the inclusion of minorities, such as ethnical minorities and women as political minority.

Mouffe agrees to the advantage of deliberative politics, yet she disagree to the aim of reaching consensus. Mouffe thinks it is impossible to reach consensus because of the plurality and the complexity of social identities. Instead, she suggests 'agonistic model' for democracy. The model urges people to think of conflict positively. In this model, conflicts should not be defined as a struggle between enemies but rather a brainstorming to reach a common good. Other than the impossibility of reaching consensus, many deliberative political theorists realized that the self-governing forum might be difficult to function at a large scale.

Because of social heterogeneity and complexity, some democratic theorists, like Mouffe, believe that reaching consensus is a utopia, especially at a large scale. In contrast to the traditional idea of democracy which always applause the unity of the member of a community, these democratic theorists develop the idea of dissent democracy. Rancière (2000) and Crouch (2004) accentuated the impossibility of public consensus. They suggested that democracy should be about maximizing people into politics. Through this maximization, conflicts between ideas and interests will always happen. To this point, any permanent consensus is not appropriate to a society, but politics should be sensitive to a fast-changing polity. Furthermore, the roles of citizens are important to democracy. According to Rancière and Crouch, citizen should be politically active as to input political agendas to politicians and to inspect politicians. Without active citizens, there is a high chance for politicians to corrupt. However, the theorists admitted the fact that some interests or ideas might be privileged than other ideas in the reality.

In general, both deliberative politics and politics of dissent try to transfer the political power to the simple people. The bottom line of the theories is that people should be able to input political agendas. To put it in a different way, people should be, at least, able to express to politicians of what their desire is. At a large scale, it is extremely difficult, if not impossible, to unify public desires. In such situation, reconciliation and convincing may take place. Consequently, public decisions will be unstable. Therefore, politics of dissent theory suggests that politics should be sensitive to public instability as well. Nonetheless, emphasizing public participation in politics means that both deliberative politics and politics of dissent theorists assume people have, at least, enough capabilities to express their desire.

2.2   The Moral Judgement of Liberal Democracy

The modern concept of democracy and rights of individuals are convoluted. The provenance of the concept of modern democracy, as aforementioned, could be traced to the American and French Revolutions which raise the notion of self-determination. i.e. individuals are able to decide on rules they would follow. This kind of notion of free will constitutes the legitimacy of the rules. In representative democracy, the notion is identified by casting votes in elections and referendums. In the present democracy where elections for governments and parliaments are the very minimum requirements for democracy, concepts such as justice, fairness and equality should be dispersed into these political institutions in order to revitalize the ancient Greek notion of democracy i.e. to accentuate that democracy is the rule of the people. In other word, political institutions should function on the ground of justice, fairness and equality to assure the true political power belongs to the people.

Yet, what determine justice and fairness in a society is the issues which has been widely discussed among political theorists. Utilitarianist such as Jeremy Bentham and John Stuart Mill suggested the concept that a government should act depending on the highest pleasure consequences in the society after which was deducted by the total suffering of anyone in the society. On the first part of chapter seven of the book 'An Introduction to the Principles of Morals and Legislation' (1823), Bentham explicitly elaborates upon the concept as follows:

> "The business of government is to promote the happiness of the society, by punishing and rewarding. The punishing part of its business is more particularly the subject of penal law. In proportion as an act tends to disturb society's happiness, i.e. in proportion as its tendency is pernicious, it will create a demand for punishment. (Happiness, we have already seen, consists of enjoyment of pleasures and security from pains.)" (Bentham 1823, p.43)

While Bentham advocate 'pleasure' rather quantitatively, Mill appended a qualitative approach to defining pleasures. To be precise, Bentham formulated the so called 'felicific calculus' to measure the degree of pleasures of individuals according to seven criteria; namely intensity, duration, certainty or uncertainty, nearness or remoteness, fecundity, purity and extent of affected persons (Bentham 1823, p.22-23). Mill (1863) developed a qualitative approach to pleasure from Bentham. He broached a separation between quantitative measurement of pleasures of Bentham and his own qualitative measurement of pleasures. The qualitative measurement of pleasure, according to Mill, consist of two different kinds of pleasures which

are 'higher pleasure' (pleasure on the mind or intellectual pleasure) and 'lower pleasure' (or, to put it simple, physical pleasure). Mill argues that the higher pleasures should be considered more valuable than the lower pleasures; for example, pleasures of the same length and intensity from watching a piece of an art work is considered more valued than ones from consuming a bottle of an alcoholic beverage.

Furthermore, in the last chapter of his book 'Utilitarianism', Mill asserted that the concept of utility -the sum of pleasure minus pains- is the bedrock for the sentiments of justice (what is right and wrong) which play a key role in constituting moral. Therefore, rights and rules, which should be founded on morals, are inevitably refer to the concept of utility. For instance, impartiality is moral because it contains a sense of justice that everyone's happiness should be respected with the same importance regardless of kinds and means to happiness. Therefore, the government should provide policies based on impartiality to generate happiness at the maximum. In contrast, partiality is immoral because it offers superiority to happiness of only some people.

Immanuel Kant (1970) contended to utilitarianism. Rather than giving everyone a rough value to kinds of happiness or following the concept of utility, Kant indicated that the key to moral legislation should be rather that freedom to happiness of an individual must not impair others. Due to heterogeneity of people in the society, Kant argued that it is simply not possible to write the law that everyone agrees to. Hence, appointing laws based on the principle of utility would infer superiority of specific kinds of happiness, which is unjust. In lieu, Kant annotated his argument of moral legislation as follows:

> "The doctrine that salus publica suprema civitatis lex est retains its values and authority undiminished; but the public welfare which demands first consideration lies precisely in that legal constitution which guarantees everyone his freedom within the law, so that each remains free to seek his happiness in whatever way he thinks best, so long that he does not violate the lawful freedom and rights of his fellow subjects at large." (Kant 1970, p.80)

For Kant, this kind of freedom under legal restriction is just because it is a rule which everyone at least possibly agrees to: that it is firmly constructed on the foundation of rationality. Owing to the sense of justice of Kant's concept of freedom, state laws should be abided by the limitation of freedom rather than commitment to equal value of every kind and way to the people's happiness.

John Rawls (1999) further developed the sense of justice from Kant and assimilate the concept of equality of happiness from Mill. In the same manner as Kant, Rawls refuses the concept of utility in practice, despite his agreement to it at some extent. He illustrated the failure of the concept of utility as disregarding the distinctions between individuals. By assuming people at least share a similar concept of pleasure, the principle of utility as the main determiner for the sense of justice could not possibly survive the heterogeneous reality. Nonetheless, Rawls did not nullify the concept of utility. Indeed, he applied the essence of the utility concept to his argument of just law enacted by the state. To explain, he suggested the 'maximin' method i.e. to maximize gains of the worse off group in the society instead of maximizing the aggregate happiness according to the concept of utility. According to Rawls, the maximin method should contribute to a fair, equal and just society.

Rawls denotes the principles of justice as "…the principles that free and rational persons concerned to further their own interests would accept in an initial position of equality as defining the fundamental terms of their association" (Rawls 1999, p.10). From this point, one could see that Rawls assents with Kant on the issue of rationality as the foundation for the sense of justice. Yet, further developed from Kant's proposal, Rawls devise the notion of 'rationality'. He ascribed rationality to equality under an imaginary circumstance called 'veil of ignorance'.

The veil of ignorance is the assumption which a person possesses neither property, social statuses, nor any kind of advantages that would allow him or her to exploit social circumstances. In other word, the veil of ignorance intends to place a person in an initial position regardless his or her inequality of birth or natural endowments. According to Rawls, only by considering every person under the veil of ignorance could equality be initiated. Only decisions assuming this kind of equality could be called fair justice and thus rational.

However, the fact that everyone is born different should not be ignored. In modern democracies, it is impossible to set zero individuals' natural assets. Yet, it does not infer that justice could not be nurtured in the society. Rawls suggests that it is the duty of democratic institutions to design and enforce a system which contributes to fairness and equality of the society under the factual lopsided circumstance. In the book 'Theory and Justice', Rawls illustrates the issue as follows:

> "The natural distribution is nor just or unjust; nor it is unjust that persons are born into society at some particular position. These are simply natural facts. What is just and unjust is the way that institutions deal with these facts" (Rawls 1999, p. 87).

According to Rawls, a fair and equal system should be designed on the ground of three principles, namely liberty, equality and fraternity. Liberty generates rights of individuals, disregarding their natural assets. Equality assures that liberty and fair opportunity are distributed to everyone in the society. Fraternity is in accordance with the difference principle as shown by Rawls in the book:

> "The difference principle, however, does correspond to a natural meaning of fraternity: namely, to the idea of not wanting to have greater advantages unless this is to the benefit of others who are less well off" (Rawls 1999, p. 90).

Given the unequal birth condition, the core idea of Rawls' fair and equal social system is to distribute resources by weighing between the better off and the worse off. To this point, one could say that maximin is the only inequality permitted in a fair society to contribute to social equity.

To conclude, the moral of liberal democracy seems to be based on the sense of justice. However, the benchmark of the sense of justice is arguable. Utilitarians like Bentham and Mill referred to different kinds of pleasures as the unit of measurement of the sense of justice. Bentham formulated 'felicific calculus' to measure pleasures quantitatively. In addition to Bentham, Mill proposed qualitative measurement of pleasures to identify the quality of pleasure whether it is 'higher' or 'lower' pleasure. Both of the utilitarians suggested the minus of pains from pleasure should be the foundation of what is right (surplus of pleasures) and what is wrong (surplus of pains). Accordingly, the duty of a just state is to maximize the aggregate pleasure of the society.

Some other theorists, such as Kant and Rawls, indicated the lack of practicability of the utility concept. They pointed out that pleasures of individuals are varied in the reality, therefore assuming a common concept of pleasure as the gauge of justice could be unfair and troublesome. To this point, Kant introduces a concept of justice based on rationality. To be precise, he proposed that everyone could yield his or her pleasures as much long as the actions do not disturb pleasures of the others. Rawls exhibits that not only people have different concept of pleasures, but also different natural assets; meaning varying characteristics, different social statuses at birth, etc. He agrees with Kant on the issue of justice on rationality on individual level. In a societal level, he defines justice as fairness between people in the society. To contribute to a just and fair society, he proposes that a state should apply the method of

'maximin' to distribute resources in order to narrowing the gap between the better off and the worse off in the society.

2.3   The Conclusion: Concept of Democracy for This Research

Since the concept of liberal democracy is inevitably associated with normative terms such as equality, justice and fairness, a separation between democratic institution and the normative functional terms should be identified up front. On the one hand, the present representative democratic institution, which derived from Spartan's hierarchical institutional system, often includes institutions of an executive branch (or the government), a legislative branch (or the parliament), a juridical branch (or the constitutional court), and, above all, a procedure of election. On the other hand, normative infusions into those institution are equally important for maintaining the function of democracy. Otherwise speaking, while the institutional system constitutes the functional competence of democracy, the normative immersion generates the quality of democracy.

Insofar as democracy should take into account the normative issue, liberal democracy in the modern time seems to be stuck in the dilemma between the concept of egalitarianism (i.e. equal freedom of people to the maximum) and the concept of equity (i.e. restrains some kinds of freedom to promote equality at the outcome). The essence of liberal idea in democracy often implies freedom of expression, free and fair election, and basic civil rights. However, critics of liberal democracy generally point out the drawbacks that high level of liberalism might permits inequalities in a society. For example, the rich exploits the poor, or the higher educated takes advantage of the lower educated by employing professional techniques to mislead the opinion of the latter.

Referring to the aforementioned institutional and normative issue of democracy, the concept of liberal democracy for this research denotes completion of institutional features e.g. free and fair election, and a clear separation of institution of check-and-balance. Additionally, the notion of liberal democracy refers to some normative features e.g. basic civil rights including civil liberties, and freedom of expression. Founded on the institutional and normative components of liberal democracy, the question of critics that whether liberal democracy correlates to social equalities is the issue of investigation for this research.

3. Literature Review

Following the ideological political dilemma between the concept of liberalism and democracy mentioned in the conceptualization part, this part explains how the dilemma is applied to a political economic sphere. However, unlike the irreconcilability of political ideologies, there appears to be a fuzzy area of compatibility between liberal economy and democracy. On the one hand, many theorists find certain trends of liberal economy supporting democracy. On the other hand, other theorists reject such conclusions and propose a contrary argument; the essence of liberal economy hinder democracy. This part exhibits the development of the discussion and finally indicates the necessity of further studies on the correlation under different frameworks.

3.1 Free Market Economy and Democracy

"…liberalization and democratization are not synonymous, although their historical relationship has been close…without the accountability to the mass publics and constituent majorities institutionalized under the latter, liberalization may prove to be easily manipulated and retracted at the convenience of those in government" (O'Donnell and Schmitter 1986, p.9).

Despite the political dilemma between liberalism and democracy, the expansion of liberal democracy employing a free market economy has been extensive since the end of Cold War. The triumph of democratic liberalism accompanying by rapid economic growth of the Unites States has spread the capitalist economy under the ideology 'American Dream' to various countries, particularly in Western Europe.

Weber (1958) explained the rise of capitalism within the European countries as the consequence of Christianity ideologies. To be precise, he theorized that the ideology of Calvinism permitted capitalism to flourish in Europe. As Calvinists believes in predestination, they seek identification of god-chosen person -who will be allocated to heaven and hell- in a secular world. The identification is interpreted as material goods. In addition, the government should refrain from intervening the economy because it is determined by God. To this point, Shaw (2008) suggested it might be this essence of the secularized religious concept of freedom that enable liberal democracy in Western European countries to flourish. Until now, the coexistence between the concepts of liberal democracy and capitalism have generated economic growth in many countries within and beyond Europe.

3.2   Economic Growth and Democracy

Not every Protestant or Christian country is capitalist. South Africa is accounted for 85 percent[2] of citizen who is identified with Christianity (and the majority of them are also Protestant). Nonetheless, South Africa has its economy far from being a free market; yet has politically democratized. This complexity sends some negative signals on the explanatory power of Weber's religious based theory of the rise of capitalism.

Regardless of religions, many political-economy theorists found positive correlations between democracy and economic growth. Lipset (1959) discovered the positive relationship in European countries and those in Latin America. He proposed that economic development bolsters possibilities of democratization and sustains democracy in a country. However, the economic development in his term combines more than just a per capita income, which is the factor mostly assumed by present theorists. The term mainly included wealth (per capita income, number of persons per motor vehicle, and number of radios, telephones and newspapers per thousand person), level of urbanization, and level of education or literacy levels. Lipset found all these positively correlated with democracy in countries. He then developed his argument on this finding. By scrutinizing political legitimation, he concluded that industrialization would reconstruct the social structure by enlarging the middle-class, who acted as a catalyst for democratization in developing countries, and that education would ascertain democratic norms in democracies.

However, prosperity of other political regimes than democracy with different economic systems are also observed. For example, China's GDP growth rates had been above 10 percent during 2003 to 2007. In fact, China's GDP growth rate has been as high as the United States' since 1970[3]. Also, the percentage of adult literacy rate of China soared from 65 percent in 1982 to 96 percent in 2018[4]. In addition, industrialization has taken place in China since 1950s by Mao Zedong's Five-Year Plans. If Lipset's theory hold true, all these evidences would mean that China should have been democratized, yet it is obvious that China has maintained strong communism.

In contrast to Lipset, Przeworski and Limongi (1997) contended that economic growth does not induce democratization and, indeed, economic growth does not enforce democratic

---

[2] Kiprop, V. (21 June 2017). Countries With the Most Protestant Christians. Retrieved from: https://www.worldatlas.com/articles/countries-with-the-most-protestant-christians.html
[3] [4] Source: World Bank Database

sustention either. Economic growth tends to develop once democracy is consolidated regardless of the country's initial economic status. "…[D]emocracy is likely to survive in a growing economy with less than $1,000 per capita income than in a country with an income between $1,000 and $2,000 that declines economically" (Przeworski and Limongi 1997, pp.177). Hence, for them, democracy is not a by-product of economic development but vice versa. They tested this hypothesis by employing a panel data of 135 countries around the world during 1950 to 1990. The derived conclusion was expressed as follows:

> "We know that democracies are frequent among economically developed countries and rare among the very poor ones. The reason we observe this pattern is not that democracies are more likely to emerge as a consequence of economic development but that they are much more likely to survive if they happen to emerge in more developed countries" (Pzeworski 2004, pp.311).

In the case of non-democratic countries, they found that the likelihood of democratic transition in developing dictatorship increases only until when $6,000 per capita income is reached. Beyond this point, dictatorship tends to remain with its national growing affluence. If this is the case, then the highest turning point of Chinese democracy should be between 2011 to 2012 when its GDP per capita moved from around $5,600 to $6,300[5]. Be it a coincidence or the validity of Przeworski and Limongi's theory, the Chinese pro-democracy protest (the Chinese Jasmine Revolution), encouraged by Arab Spring 2010, transpired in February 2011. In congruence with the triumph of the Communist Party over the protest, De Schweinitz (1959) and Huntington and Dominguez (1975) also reaffirm Przeworski and Limongi's theory by indicating that for a dictatorship to sustain with economic development, limiting democratic political participation is required.

As opposed to Przeworski and Limongi's bell curve of the democratization likelihood to economic development, Boix and Strokes (2003) suggested that the trend is rather linear. They indicated that economic development positively affects regime transition and its regime development but only to the point of $7,000 per capita income. Precisely, the found most countries in transitions have already settled their regimes before its capita income reach $7,000. In fact, they insisted on Lipset's theory that development does generate both democratization and promote democratic sustention, but at different rates. They discovered that "…for low and medium levels of development, the probability of transition to democracy grows by 2 percent

---

[5] Source: World Bank Database

for each $1,000 increase per capita income. For high levels of development, the probability of a democratic transition still goes up with income, but only by about 0.5 percent for each additional $1,000" (Boix and Strokes 2003, pp. 531-533). This situation of 'diminishing returns' also has similar effects on the relationship between economic growth for stabilizing democracy. The diminishing returns effect could also explain why China's GDP per capita growth rates for over 10 percent during 2003 to 2007 did not induce democratization. China's increasing per capita income from around $1,300 in 2003 to around $2,600 in 2007[6] contributed only 1 percent to the probability of democratization.

Nonetheless, the economic growth in term of per capita income lose its statistical significance to democratization likelihood when some other factors are included into consideration. In the same vain with Lipset and some other early theorists, Boix and Strokes exhibited a decrease of economic development effect on democracy by half when education indices are taken into account. Moreover, the role of economic inequality is highlighted as it greatly contributes the chance of democratization and shrinks the opportunity of democratic breakdown. The authors asserted that democratization probability increases by ten-fold when urbanization is enlarged by three-fold. Additionally, once rural equality or industrialization take place, the probability of democratic backsliding vanishes from 20 percent in highly unequal and underdeveloped countries. To this point Boix and Strokes concluded that "…per capita incomes rise in countries where incomes are becoming more equal. Not higher income but income equality causes countries to democratize and to sustain democracy" (pp. 544). It is crucial to note that the authors denote economic equality as a fair distribution of land and literacy rates since data on income equality is non-existed for many countries before World War II.

3.3   Economic Equality and Democracy: Redistribution and Dilemma

Income inequality, measured as GINI index, of the United States has been around the level of 40 during 2000 and 2016, while the index of Thailand decreased from 42.8 to 36.9 in the same period[7]. From this evidence, if the relationship between economic equality and democracy resembles Boix and Strokes's implication, democracy in the United States would remain constant while Thailand would be more democratic. However, the fact is ambiguous. Throughout the period between 2000 and 2016, democracy levels of the United States remain

---

[6] Source: World Bank Database
[7] Source: World Bank Database

at 10 (the highest point of democracy), while Thailand's democracy has worsened from level 9 in 2000 to -3 in 2015[8] as it has undergone coup d'état in 2006 and 2014. Obviously, the relationship between income equality and democracy goes beyond a simple dichotomy. To answer whether income equality is a prerequisite for democratization and its sustention or not demands complex analyses.

To the question regarding democratization and economic equality in free-market economies, many political economic theorists focus on the role of redistributive schemes such as taxation as a contributor of income equality in liberal democracies. Through taxation, democracy should lead to income equality between social strata. Ideally, democratic representation would accentuate demands for redistribution of the citizens and the government would impose tax regimen accordingly. From this point, Meltzer and Richard (1981) developed a model based on the Downsian median voter theorem. Downs (1957) proposed that in representative democracy where ideologies of political parties could be placed on a left-right scale, the median voters will benefit the most as parties tend to deviated toward their position. Meltzer and Richard further contributed to the theorem. They advanced Downs' assumption to the economic sphere and suggested a model of redistribution demand based on the role of the median voters. In the Meltzer and Richard model (M-R model), those who are poorer than the median voters would prefer more redistribution and those who are richer would favour less redistribution. Implied from the Downsian theorem, the median voters are decisive since their one vote hold relatively stronger predicting power to the election outcomes. Consequently, a government who wants to be re-elected would employ redistribution policies at the level referring to the redistribution demand of the median voters; that is between their income and the mean income.

The significance of the M-R model to democracy levels is on the shift of the median voters' position under different voting rules. The authors exposed that, in democracies, franchises are usually extended to those whose economic statuses are inferior. Hence, universal suffrage tends to shift the position of the median voter toward the poor. However, the mean income tends to remain or shift only slightly since the income of the suffragists does not make up a great share. As a result, the median voters' demand for redistribution is enlarged when franchises are extended. Considering this with Finseeras (2009)'s argument that inequality is positively

---

[8] Source: Our World In Data (combined two data sets from Wimmer and Min (2006) and Center for Systematic Peace)

associated with demand for redistribution, the M-R model predicts that extending franchises in democracies generates higher inequality for a government to deal with.

Figure 1. A stylized illustration of the Meltzer-Richard logic of the argument
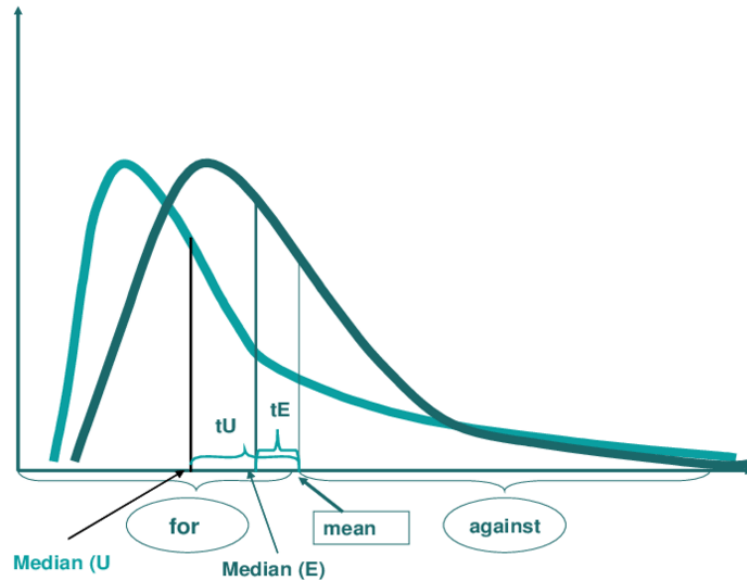
Source: Keller and Tóth 2013

Figure 1. shows the situation of the median voters' increasing demand for redistribution when franchises are extended. Median(E) denotes the position of the median voter before the extension in compare to Median(U) when the suffragists are included. The size of the demand for redistribution after extending voters is therefore tU+tE.

In spite of the M-R model, different redistributive policies across liberal democratic countries are still inspected. An example shown by Beramendi and Anderson (2008) indicates that redistributions in the United States seems to be less egalitarian than in European countries. To this point, they argued that the M-R model is too shallow to capture the reality of redistribution politics. "… [Redistributive policies] are the product of the democratic political process and of how political institutions work to produce economic outcomes, In turn, levels of equality or inequality feed back into the processes of democratic representation" (pp. 4). Finseeras agreed to the point. She suggested that the difference in redistributional efforts is due to political institutional structures in different countries; for example, the poor might have fewer avenues for expressing their opinion in politics than the poor.

In terms of election institution influences on redistribution policies, Austen-Smith (2000) pointed out the invalidity of the M-R model under proportional representation system. He demonstrated that the position of the median voters in a proportional system is rather obscure.

In addition, Austen-Smith and Banks (1988) proposed that proportional representation system reflects the preferences of the median voters less than majoritarian system as it gives more bargaining power to coalitional parties.

However, redistribution schemes can hardly be assumed from the system of representation alone. Both Indonesia and Austria employ a proportional representative system with 4 percent threshold. Nonetheless, income inequality of Indonesia seems to outweigh that of Austria by far. In 2003, GINI index of Austria is at the level of 29.5 and 31.8 for Indonesia. By 2015, the index of Austria increases by only 1 point to 30.5, while that of Indonesia reaches 39.7[9].

One prominent argument for such cases is that a government have to confront a trade-off between economic growth and income equality. That is, although a government wish to have redistribution efforts at the level predicted by the M-R model, it could not do so in action because of limited national budget. Governments in developing countries like Indonesia would usually prefer to increase the budget by allocating its current budget to promote economic development in order to expand the number of taxpayers e.g. attracting foreign investment and launching less redistributive tax regimes to boost investment domestically. In so doing, they lose the chance to contribute to income equality: partly because the limited budget was mostly spent for boosting the economy, and partly because of the nature of the less redistributive tax regime itself. In reverse, governments in developed countries like Austria could pursue their wishing redistributive efforts because of their higher budget, but they would still lose the chance of progressive economic growth since entrepreneurs have less incentive to invest under redistributive tax regimes. To illustrate the trade-off situation, per capita income growth rates of Indonesia has been around 3 to almost 5 percent during 2003 to 2015, while the rate of Austria has been around 0.5 to 3 percent (and even negative in some years) during the same period [10]. The numbers point out that income equality might come at a price of economic growth. From this trade-off, another main challenging issue for redistribution politics is to find a method that income equality and economic growth are compatible.

Przeworski and Wallerstein (1982) addressed the influence of economic institutions in redistribution politics. They suggested that the trade-off effect between economic growth and income equality could be alleviated by economic institutions such as union confederations. Collective agreements though such institutions could decrease dependency of the government

---

[9] Source: World Bank Database
[10] Source: World Bank Database

on capitals. For example, if the agreement permits a decrease of wage demand in compensation with better welfares, companies would have more budget for re-investment. This win-win situation allows the government to impose tax on entrepreneurs without harming investment. Therefore, the government could focus on producing redistribution schemes. The authors further proposed that, despite the roles of union confederations, investment might still be reduced in the short term. Firms tends to reduce or retract their investment suddenly when redistribution policies are anticipated no matter what. Hence, in this case, the government should recognise that such situation is not the consequence of redistribution policies per se. To lessen this side effect, good government credits and high investment confidence are essentials. Referring Przeworski and Wallerstein's theory to the Indonesia and Austria case, although union confederations are founded in both countries, being in the European Single Market could be the potential decisive factor for Austria to retain its economic growth while contributing to income equality.

Iversen and Wren (1998) posed another explanation for the differences in such cases of Indonesia and Austria. They contend that different countries prioritize different aspects of economic issues according to their ideologies. In fact, they proposed that the trade-off is not limited only to the economic growth and income equality, but also includes a fiscal discipline aspect. Countries could pursue economic growth and income equality at the same time for a price of budget deficit. In these countries, wage bargaining is usually the main method for complying economic growth with income equality. This is usually the case for social democratic countries such as the Scandinavian nations. For most European countries, where Christian democratic ideology dominates, would launch policies contributing income equality and fiscal discipline with slow economic growth. Wage bargaining mechanism is still important in these countries but labour-market participation is discouraged in order to prevent increasing unemployment rates. Lastly, Countries employing neo-liberal ideology would sacrifice income equality for economic growth and fiscal discipline; the United States, for example. In sum, among income equality, economic growth and fiscal deficit, a country could only choose to promote only two aspects and has to sacrifice one; and it does so according to the nation's political ideology. Iversen and Wren called this situation 'trilemma' as illustrated below:

Figure 2. The trilemma of the service economy
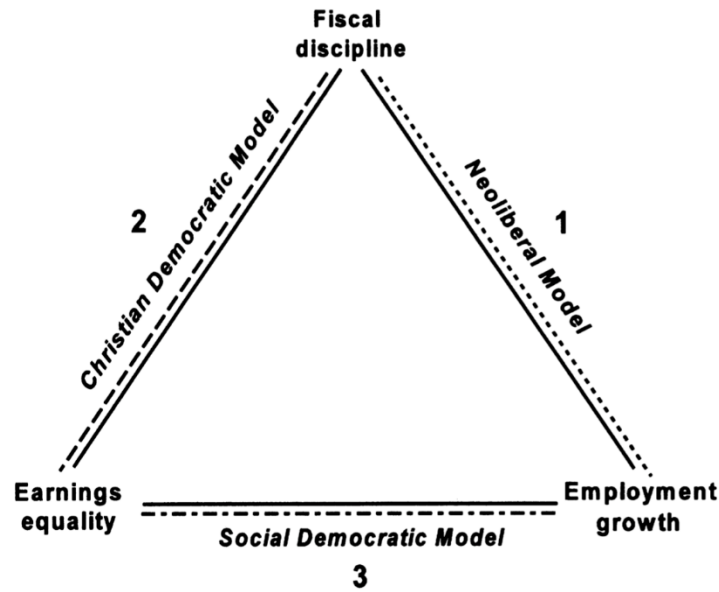
Source: Iversen and Wren 1998

Not only the roles of election and economic institution are neglected in the M-R model, but many scholars also indicate some social factors being ignored from the model. Iversen and Soskice (2001) demonstrated that voting preference on income redistribution can also be explained by occupational skills, not only by individual disposable income. Individuals who invest in vocational skills tend to prefer redistribution because they are more exposed to unemployment risk than those who invest in general skills. This logic also applies at a national level. Countries investing in vocational training, such as Germany, tends to be more redistributive than countries investing in general-skills training, such as the United States.

Gingrich and Ansell (2012) also underlined the essence of employment risk. They contended that individual risks of unemployment matter for social policy preferences where employment protection is low and welfare benefits depend on employment. This claim basically furthers the theory from Przeworski and Wallerstein (1982). In other words, if economic institutions such as union confederations are ineffective, even individuals who have low risk of unemployment would prefer redistribution. Haggard, Kaufman and Long (2013) asserted that union confederations in developing countries are rather to maintain status quo and support the middle-class than poor workers. The fright of losing benefits to poor farmers prevents the institutions to be progressive. As a result, poor workers in developing countries put their hope for better living quality mainly on the government.

3.4   Economic Equality and Democracy: The Role of the Middle-Class

To the question whether economic equality induce democratization or not, many theorists build their argument on the social class conflict theory. Precisely, most of them highlights the significance of the middle-class as a catalyst for democratization. Classical social theorists of modernization like Weber developed his argument base on Marx's assumption on class struggle theory. The class struggle theory proposes that "…the policy of the ruling class is determined by its class interests". Rather the class domination, Weber emphasize that it is the class which loss their interests under a new political rule that is problematic. The emphasis could be interpreted from Falkner's following statement on Weber's standpoint:

> "[it] is not that class domination as such is dangerous, but the domination of an economically decaying class whose interests become opposed to the progressive tendencies of a community. In modern times, the fatal thing is that the condition necessary for the government of a land-owning aristocracy disappear in an industrial society and neither the bourgeois entrepreneur nor the working class is in a social and economic position to form a new one" (Falk 1935, pp. 379).

Since the domination of the land-owning aristocracy is outworn, the decisive factor for democratization is the struggle between the bourgeois entrepreneur (or the middle-class) and the working class. To this point, for aristocrats to stay in power is to prevent the middle-class from convincing with the working class' interests and become authoritarian. For democratization to take place, the middle-class has to agree to the interest of the working class to some extent.

Ansell and Samuels (2010) perceived the cause of democratization similarly. However, they are opposed Boix and Strokes that economic equality is positively correlated to democratization. To be accurate, the Ansell and Samuels proposed that democratization is more likely to occur when inequality is high in the industrial sector than in property sector. Inequality of property asset, for them, means that the elite (or the land-owning aristocrats in Weber term) has more land than the middle-class (the bourgeoisie). This situation lessen incentive for the middle-class to rebel because they have less to lose than the elite. In addition, the middle-class also have less probability of winning as the elite tend not to grant partial democracy since they would be taxed at the highest rates under democracy.

The situation is however different in the industrial sector as higher inequality indicates the middle-class growing wealthier than the elite and the working classes. Such trends inspire the

middle-class to rebel as to control tax rate in favour of themselves. Moreover, the elite tends to grant partial democracy because they have less to lose (than the middle-class) and the new tax regime by the middle-class would not be very redistributive anyway. Hence, democracy is less costly for the elite in the industrial sector than in the property sector. On this ground, Ansell and Samuels pinpointed that joint rebellion between the middle and the working class to occur depends on whether the middle-class is taxed more under autocracy (the elite) or democracy (the working class).

The standpoints of Acemoglu and Robinson (2006) is deviated from the two aforementioned theories. They contended that the middle-class acts rather as a buffer between interests of the elite and the working class than to be decisive on their own. Thus, growing middle-class tend to promote democratization. Furthermore, the author argued that, unlike Ansell and Samuels' theory, the probability of democratization due to inequality exhibits a non-linear function: a bell curve. In brief, they indicated that democratization is most likely to happen when the demand for redistribution from the working class (the poor), as the result of income inequality, has reached an adequate level. They explained that when there is low income inequality, there is no incentives for a regime transfer. Yet, when income inequality is too high, then the cost of democracy is too high for the elite. In this situation, the elite tends to suppress the redistribution demand by coups. Only when inequality, regardless of sector, is at an adequate level could democracy be introduced. The elites tend to be willing to grant partial democracy as the cost of ignoring the demand (or making coup) is higher than having democracy. To this point, some level of concession for the elite might be necessary to induce democratization. However, the authors further proposed that at the level between adequate and high inequality could democracy be broken down and repeatedly induced. This is the case for many developing countries where democracy is unconsolidated.

3.5   Other Aspects on Democratization and Democratic Sustention

Having analysed data from 135 countries between 1971 to 1977, Ross (2001) concluded that natural resources tend to hinder democracy. According to Ross, there are three reasons why democracy is difficult to establish in oil-rich countries. First, the government in these countries seems to apply a low tax rate to favour oil market, but also high public spending in order to suppress democratization. Second, security institutions such as police and military are usually strongly contributed by the government for a purpose to pressure demand for democracy.

Lastly, democratization is less likely because the most jobs of the citizen are not transferred to the industrial and the service sector. The same reasons applied to mineral-rich countries but less intensively. Hence, natural-resource-rich countries are likely to be authoritarian. Ross called this phenomenon a 'political resource curse'.

Bates and Lien (1985) reveals that the government's characteristic of revenue seekers, whether originated from the need or from a personal preference, allows actors from the private sector, such as capitalists, to control over public and tax policies. The same logic could also be transferred to the international level. The authors suggested that it is possible for international influences to disproportionally constrain public policy choices of governments from third world countries. In their research, this claim is implied from the following:

> "In the context of the world economy, the most effective market respond would be to move asset to other, more favourable jurisdictions. And an implication of our analysis is that it is therefore possible for international capital, farming, or labour, to gain control of public policy in third world nations" (pp. 18).

Boix and Strokes (2003) developed the arguments from Ross, and Bate and Lien. They exhibited that international pressure is a significant factor for democratization. Influences from Russia make democratization less likely in post-soviet countries than in non-post-soviet countries. In line with Ross, they proposed that democratization is more likely in non-oil countries because oil would attract interests from other countries to intervene nation politics.

3.6   Conclusion: Call for the Consideration on the Informal Economy

Despite the ideological dilemma between liberalism and democracy, liberal economy has been employed in many democracies extensively after Cold War. Early theorists like Max Weber attempted to explain the phenomenon by religion ideologies. He believed that the essence of Calvinism permits the idea of capitalism to flourish in Christian countries. However, liberal economy has spread beyond the scope of Christian countries. Hence, theorists in the later time were in search of other explanations.

Industrialization seems to be the main assumption of political economic theorist in the later time. Some theorists focused on the correlation between economic development and democracy. As democracy has already been firmly established in some countries, mostly Western countries, the study of such correlations is departed into two main question: whether

economic development enforce democratization, and whether it promotes democratic sustention. While the correlation between economic development and democratic sustention is rather agreed to be positive, the correlation of economic development to democratization likelihood is contending. Lipset (1959) and Boix and Strokes (2003) illustrated the positive correlation, while Przeworski and Limongi (1997) found the correlation undergone a bell-shaped function. Precisely, they contended that the highest likelihood for democratization to take place is at $6,000 per capita income. However, Boix and Strokes also found other significant factors for democratization and its sustention such as literacy rates and economic inequality. In fact, the authors argued that it is the economic equality that induce positive correlations with democracy; and that economic growth is a by-product of income equality.

Theorists on redistributive politics find two major challenges in exploring the correlation. On the one hand, measuring the success of governments' redistributive policies requires a concrete definition of redistribution demand from the citizens. To this point, Meltzer and Richard (1981) develop a model measuring a demand for redistribution (M-R model). However, many theorists criticize on the simplicity of the model to capture the reality of complex political institutional processes which influence the demand (Beramendi and Anderson 2008). Austen- Smith and Banks (1988) also pointed out the influence of different representative systems on shaping the demand for redistribution.

At some point, countries which desire to promote income equality will have to face the dilemma between income equality and economic growth. To elaborate, countries which desire to promote income equality would have to face slow economic growth and vice versa. This perspective of redistribution was also not captured in the M-R model. On this ground, Preworski and Wallerstein (1982) highlighted the role of economic institutions such as union confederations in reducing the dependency of a government on capital. With an effective union confederation, a government could focus on promoting redistributive policies without harming economic growth. In addition, Iversen and Wren (1998) suggested that a country could promote income equality and economic growth at the same time but has to lose its fiscal discipline. In fact, they proposed that a country has to choose to promote two out of the three economic aspect: income equality, economic growth and fiscal discipline. And a country does so according to its dominating political economic ideologies. Lastly, some theorists also criticize on the M-R model and the former theorists of lacking consideration on social factors such as occupational skills (Iversen and Soskice 2001), unemployment risk (Gingrich and Ansell 2012) and the quality of economic institutions (Haggard, Kaufman and Long 2013).

Another perspective to analyse the correlation between income inequality and democratization is the class struggle. To this point, theorists like Weber and, Ansell and Samuels (2010) underline the role of the middle class as the decisive factor for democratization. In contrast, Acemoglu and Robinson (2006) perceive the middle class as a mediator between the interest of the poor and the rich, thus promote the probability of democratization. Nonetheless, both Ansell and Samuels, and Acemoglu and Robinson argue that correlation between income equality and democratization is inverse. While the formers proposed that the relationship between income inequality and the probability of democratization is negatively linear, the latter contended that the relationship reveals rather a bell-shaped function.

Most of the aforementioned theorists assume taxation playing a key role in the relationship between income inequality and democracy. Paradoxically, taxation usually functions effectively where politics is steady and institutionalized. i.e. consolidated democracy. Departing from this, some theorists suggest external factors playing crucial roles in shaping public policies and affecting redistribution. Examples of these factors include natural resources (Ross 2001), foreign capitals (Bate and Lien 1985), and international politics (Boix and Strokes 2003)

All in all, many abovementioned theories fail to explain democratic paths of developing countries, especially those in Asia. If economic development leads to democracy, why some countries of the East Asian Miracle[11], namely Thailand, Malaysia and Indonesia, underwent democratization repeatedly? ; not to mention Singapore where democracy had for long never entrenched despite its ever-growing economy. If increasing income equality brings democratization, why does China remain strong communism? If income inequality is positively associated with democratization, why are there fewer democratization events happened in Cambodia than in Thailand, noted that income inequality in Cambodia is higher than in Thailand?

Perhaps, another perspective on the issue is to spotlight how informal sector affect the relationship between income inequality and democracy. It is the usually case of many developing countries in Asia and Latin America in which the informal sector is accounted for a large part of its economy.

---

[11] East Asian Miracle is the sudden rapid economic development of countries including Japan, South Korea, Taiwan, Hong Kong, Singapore, Thailand, Malaysia and Indonesia.

4. Theoretical Background

This part highlights the potential influence of the informal sector on the formal economy due to the industrialization process. As the term 'informal economy' is rather a connotation than a denotation, a concrete definition of the term is established in the first section. In this research, definition of the 'informal economy is derived from the International Labour. Developed from the definition, economic theories on the informal sector in relations with economic development and income inequality are presented in the next two sections as the theoretical background for this research. The last section includes the conclusion and the aims of this research as to explore the significance of the informal sector in the correlation between income inequality, on the one side, and the likelihood of democratization and of democratic sustention, in the other side.

4.1   Informal Economy: Definition

The conventional understanding of the term 'informal economy' is usually an economic sector excluded from the formal economic sector. In other word, as opposed to the formal economy, the informal economy comprises economic activities which governmental protections disappeared in return of some increased profit from avoiding taxes. However, taken historical consideration on the definition of 'informal economy', it seems obscure how or when exactly the informal sector originates. On the one hand, redistributive policies such as governmental protection and taxation is non-existed in the ancient time when there were already economic activities happening without governmental protection e.g. the barter system. In this sense, the term 'informal economy' overlaps traditional economy. On the other hand, taking taxation as the parameter for the formal economy is also problematic. Taxation could be in the form of labour and valuable goods, for example, in ancient Egypt and ancient Rome. It could also be in the form of physical money. Taxation could be calculated on the ground of goods' value like Bretton Woods system or without reference value like fiat money. In sum, taxation appears in varieties of type, in different time period throughout different sides of the world.

Aside from the absolute origin of the informal sector, another way to define the term could be to point out the significance of the sector in historical timelines.

Assumed that the informal sector coexists with the formal economy, then the significance of the informal sector is, perhaps, when the economic development is burgeoning i.e.

industrialization. On this ground, the informal sector is associated with terms such as employments, corporates and production. As defined by the International Labour Organization (ILO) in 1993, an informal sector denotes an economic sector operated by unincorporated enterprises owned by households or unregistered enterprises.[12] Later in 2003, the organization defined the term 'informal employment' as those jobs "[include] all remunerative work (i.e. both self-employment and wage employment), that is not registered, regulated or protected by existing legal or regulatory frameworks, as well as non-remunerative work undertaken in an income-producing enterprise. Informal workers do not have secure employment contracts, worker's benefits, social protection or workers' representation". [13]

Noticing the differences between an informal sector and an informal employment. The term 'informal economy' (or 'shadow economy' or 'grey economy') is therefore designated to be comprised of informal sector and informal employment i.e. all economic activities not covered by formal arrangement or without legal binding.

4.2   Informal Sector and Economic Development

The occurrence of the informal sector due to economic development is first noticed in the Lewis' model. According to Lewis (1955), the development of the industrial revolution could be divided into two parts. In the first part, industrial enterprises in the formal sector could hire their worker with low wages because of the surplus labour from the non-capitalist subsistence sector i.e. informal economy. In the second part, these enterprises fully absorbed the labour hence there is no surplus labour anymore. At this turning point, wages and welfare for workers could increase as the enterprise would keep labours for their production.

Lewis developed this theory on the Industrial Revolution in England. However, many theorists found that Industrial Revolution in Europe might be inimitable. Development of industrial revolutions in developing countries exhibited different paths than those in the first world countries. Precisely, the informal economy seems to exist in parallel to the formal economy rather than being absorbed by the latter. Hart (1973) inspected this circumstance in Ghana economy. He contended that because the minimum wages in the industrial formal sector are too low that labours cannot bear the urban living cost, the informal economy provides an

---

[12] International Labour Organization (ILO) Resolutions Concerning Statistics of Employment in the Informal Sector Adopted by the 15th International Conference of Labour Statisticians, January 1993, para. 5.
[13] ILO thesaurus

opportunity to increase their disposable income. This way, the income output from the formal sector becomes the input or the investment in the informal sector. Hence, although labour surplus could be fully absorbed by industries as suggested by the Lewis model, informal economy might still be increased in parallel with economic development due to an exploitation of labours.

Feige (1990) further proposed that the informal economy does harm political institution. He argued that the tax-avoiding characteristic of the informal economy does not only decrease governmental tax revenue, but also distorts information for the government to generate other and further policies. To this point, the government's incapability of tax harvest results in biases in redistributive policies. Consequently, the government's ability to reduce inequality or promoting development might be decreased by dint of misinformation as the informal economy is usually excluded from economic indices.

The reverse effect of political institutions on the informal sector is also addressed. De Soto (2000) conducted an analysis on the informal sector in Peru and concluded that the informal sector exists according to the governmental ineffectiveness in legalizing property ownership of small enterprises. Without property ownerships, these entrepreneurs have inadequate credits for taking loans or lack of investment confidence to develop their companies. The situation forces them to turn to the informal sector as the source of capital for continuing their businesses. In addition, the entrepreneurs can establish their own rules for their own games in the informal sector. Hence, De Soto proposed that to construct a free market formal economy, legalizing process of properties for small enterprises is crucial.

4.3   Informal Sector and Economic Equality

The theory of Kuznets has been gaining its importance by being at the foundation of many political economic theories on economic equality and industrialization. According to Kuznets (1955), early increasing income inequality arises from migration of labour from the agricultural sector to the industrial sector as industrial development took place. Kuznets further explained that income inequality is later decreased as the next generation of those migrants could adapted themselves to city-life condition and become "the growing power of the urban lower-income group" who demand "a variety of protective and supportive legislation" (p.17). i.e. redistributive tax regimen.

If the Kuznets' theory were accurate, that income inequality emanates from industrialization and urbanization, the essence of the informal economy should not be neglected. The eccentricities of the informal employment, such as flexible entering to the market, might attract labours from agricultural sector to temporarily move to industrial sector during the off-harvesting season. This situation could be explained by the theory of planed behaviour (Ajzen 1988). The theory suggests that individual's attitudes toward behaviour, subjective norms and perceived behavioural controls influence behavioural intentions, which then are developed into his/her behaviour. Referring to the case of the informal employment, a labour might have a positive attitude on moving to an industrial sector as it promises a stable income obtainable during his/her free time. Furthermore, as working in an industrial site requires low-to-none education levels, labours from agricultural sector are capable of it.

Evidences shows that there is a possibility for the informal sector to develop in parallel with income inequality. According to the ILO, the informal sector is predicted to consume around 61 percent of the world's employed population. "In Africa, 85.8 per cent of employment is informal. The proportion is 68.2 per cent in Asia and the Pacific, 68.6 per cent in the Arab States, 40.0 per cent in the Americas and 25.1 per cent in Europe and Central Asia" (ILO 2018). These numbers demonstrate that informal sector is relatively large in developing countries than in industrialized or western countries. Similar trends also applied to economic inequality. However, when considering economic inequality in Latin America separately from the United States, the economic inequality of Latin America ranks top.

Figure 3. Trends in the average economic inequality within countries, by world region 1988-2013
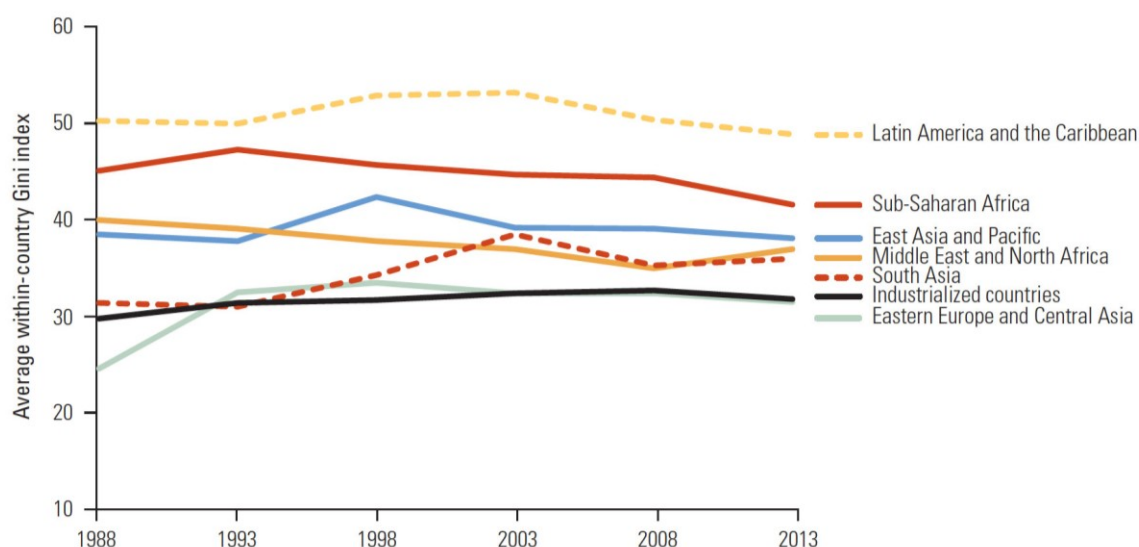
Source: The World Bank (2016) – Poverty and Shared Prosperity 2016: Taking on Inequality. Reformatted for OurWorldInData.org
Original data source: World Bank calculations based on data in Milanovic' 2014; PovcalNet (online analysis tool),

Despite the tendency of a causal relationship between economic inequality and the informal sector, cross-national studies on the issue are rather limited. This is possibly due to the obscure peculiarity of the informal sector and inimitable national factors. Beyond that, the remaining researches yield rather a conclusive result of a positive relationship. Rosser et al. (2000) discovered a positive relationship between income inequality and the size of informal economy (as measured by output) in some former Soviet republics and east European countries. The authors found that "… an increasingly large informal economy causing more inequality due to falling tax revenues and weakened social safety nets, and increasing inequality causing more informal activity as social solidarity and trust decline" (pp.156). In the same vain, Ghecham (2017) investigates effect of the informal sector on different income levels in 35 countries. He also found a positive relationship between income inequality and the size of the informal sector. The author concluded that, although the informal sector seems to narrow the income gap between lower income groups, it exacerbates the gap between the lower groups and the top earners. In line with these researchers, Bhattacharya (2011) developed an economic model which also reveals a positive relationship between the size of informal sector and income inequality. However, he rejected the assumption from the Kuznets theory by affirming that the size of the informal sector is actually independent from urbanization. Instead, he underlined the significance of the size of the informal sector corresponding to income inequality. He asserted that "[h]ow exactly the Gini coefficient moves over time depends crucially on the evolution of the gap between the formal and the informal sector wage" (pp. 828).

4.4   Conclusion: Informal Sector and Democracy?

The development of the informal sector is rather a connotation than a denotation. However, the magnitude of its influence is expected to be particularly large, especially in developing countries. On the one hand, the size of the informal sector is predicted to be shrunken by the development of the formal economy. Lewis model anticipates such situation based on the industrial revolution in England. However, anthropologists like Hart and De Soto disagree. Hart (1973) contended that the informal sector develops in parallel with the formal sector as the exploitation of labour continues. De Soto (2000) indicated that the size of the informal sector increased due to the property legalization ineffectiveness of the government. Because of the ineffectiveness, a large amount of capitals was forced to enter the informal sector in order to keep the business run in a free-market capital economy.

On the other hand, the informal sector seems to enlarge income inequality. The Kuznets model on the origin of economic inequality due to industrialization and urbanization has been the bedrock for many assumptions of the origin of the informal economy in the later time. Late theorists discovered a positive correlation between the size of the informal sector and income inequality. Rosser et al. (2000) proposed that the development of the informal sector decreases tax revenue for the government to effectively push redistributive policies. In addition, Feige (1990) also found that the redistributive policies could be biased due to a misinformation from the tax-avoiding characteristic of the informal sector. Ghecham (2017) pointed out that while the informal sector decreases the income gap between the lower income groups, it exacerbates the gap between these group and the top earners. To certify the significant role of the informal sector on income inequality, Bhattacharya (2011) ascertained the relationship, yet refused the influence of urbanisation assumed in the Kuznets model.

From another point of view, issues on the relationship between economic development and inequality, on the one side, and democracy level, on the other side, have been extensively studied. Less than that, the relationship between economic factors and the informal sector has just been on research. Least is that there is hardly any research in attempt of discovering the relationship between the informal sector and democracy. Most of the researches on democracy ignore the effect of the informal sector on measuring income inequality. Precisely, popular measurements of wealth distribution such as Gini coefficient and Theil index employ only the formal share of income as the key factor. To this extent, assuming the correlation between democracy and income inequality disregarding the informal economy could yield bias results, especially when considering many developing democracies usually having a great share of the informal economy. This argument is explicitly exposed by Hart (1973) as follows:

> "When half of the urban labour force falls outside the organised labour market, how can we continue to be satisfied with indicators of economic performance which ignore their productive activities?" (pp. 88)

To this point, this research aims at discovering the effect of the informal sector on a relationship between income inequality and the likelihood of democratization, and of the democratic sustention. As this is rather an exploratory research, causational relationship is beyond the framework. In other words, this research aims to prove if further researches on democracy should take the size of the informal sector into consideration. If the informal sector happens to

be a crucial factor for democracy, further research on the causation effect could be established on this ground.

5. Methodology

This part shows how this paper yield the answer whether the size of the informal sector is significant in the relationship between income inequality and democracy. As aforementioned, the informal sector is rather a connotation than a denotation. It does exist but its characteristic is difficult to be clearly specified. Therefore, the first part of the methodologies in this paper is devoted to estimating the size of the informal sector. The information from the first part is then taken into the consideration of historical analysis in the second part and passing to regression analyses of the third part to yield the answer whether the size of the informal sector is an important factor for further researches on democracy. In this chapter, quantitative methodologies of the first and the third part are expounded.

5.1   Estimating the Informal Sector: DYMIMIC Approach

The major challenge of studying the informal sector is its ambiguous characteristics. Attempts to estimate the size of the informal sector has been done by various methods. Direct methods such as national survey and sample surveys are being criticized of containing survey biases and representation problems as respondents are often voluntaries. Indirect methods or 'indicator approaches' are also often castigated due to its singular-indicator biases. For instance, the disparity between national expenditure and income[14], the decline of labour force participation[15], the change of money transaction[16], the demand of currency[17], and the electricity consumption[18] are ponderously relied on one or two factors for assuming the size of informal sector.

The Multiple-Indicators-Multiple-Causes model (MIMIC) is developed from the aforementioned indirect methods. The model estimates the share of the informal economy from the conjugation of multiple observable variables as the causes and the consequences of the

---

[14] See, e.g., MacAfee (1980), and Franz (1983)
[15] See, e.g., Contini (1981), and Del Boca (1981)
[16] See, e.g., Feige (1979), Boeschoten and Fase (1984), and Langfeldt (1984)
[17] See, e.g., Cagan (1958), and Gutmann (1977)
[18] See, e.g., Del Boca and Forte (1982), Kaufmann and Kaliberda (1996), and Johnson et al. (1997),

development of the informal sector. Through this, the model is based on the DYMIMIC approach. "The DYMIMIC (dynamic multiple-indicators multiple-causes) model consists in general of two parts, the measurement model links the unobserved variable to observed indicators. The structural equation model specifies causal relationship among the unobserved variables. In this case, there is one unobserved variable, the size of informal economy" (Schneider 2002, pp. 41-42).

I.   Variables

In this research, 20 variables are employed for predicting the size of the informal economy. These variables are distinguished into two categories: causal variables and indicator variables. The causal variables are those factors assumed to have influenced the development of the informal sectors; namely, tax burden, government spending, regulation burden (investment, business, financial and labour regulation intensity), the rule of law, industrialization (the value of manufacturing outputs and urban population growth), secondary school enrolment, regulation quality, quality of institution, the formal sector (GDP growth and unemployment rate),the value of agricultural output, and the degree of corruption control. The indicator factors are rather the outcome of the informal sector. These factors are electricity consumption, labour force participation rates, total money outside banks and tax revenue. The following part will clarify how these 20 variables are significant to the informal sector in detail.

Causal Variables

- Tax burden

    Tax burden is the share of the top marginal tax rate of individual income and corporate income in GDP. Researchers on the size of informal economy agreed that it was the most significant determinant of the informal sector[19]. The higher the gap between gross and net income, the more likely individuals and corporates entering informal sector. In other words, higher tax rate would persuade economic activities from the formal to the informal sector.

- Government spending

    As increasing size of the informal economy tends to reduce government's tax revenue. Consequently, the government has less to spend on national projects including public policies. Such situation could reinforce the informal economy due to poor public services.

- Regulation burden

    (financial freedom, business freedom, investment freedom, and labour freedom)

---

[19]See, Thomas (1992), Lippert and Walker (1997), Tanzi (1999), and Schneider and Ernst (2000)

Substantial state interventions on financial market, labour regulations and business regulations are likely to foster the informal economy, prima facie. Yet, conclusions on the effect of regulation intensity on the size of the informal economy are rather ambiguous. Friedman, Johnson, Kaufmann, and Zoido-Lobatón (1999) discovered positive relationship between regulation intensity and the growth of the informal sector. However, they concluded that the relationship is rather equivocal. In this research, regulation burdens are measured by four variables. The first variable is financial freedom which indicates the degree of governmental pressure on banking sector. The second variable is business freedom which similarly to the financial freedom, exposes the extent of regulatory and structural constraints to business operation. The third variable is investment freedom which denotes the level of free movement of capitals, domestically and internationally. Last, labour freedom which measures the extent of employment rules in favour in labours such as minimum wages and working hours.

- Rule of Law

  Avoiding taxes is a characteristic of not abiding rules. This variable 'rule of law' measures the extent of the people trusting juristic institutions and being under rules in the society e.g. police, court, and other law enforcement. When there is less trust and willingness to be abided by the law, such behaviour as avoiding tax could happen: thus, the informal sector could expand.

- Industrialization (manufacturing output, and urban population growth)

  Referring to Kuznets' assumption of the introduction of income inequality, industrialization coaxes agricultural labours to migrate to work in an industrial urban. Testing this hunch, the level of industrialization, measured by the value of manufacturing output, and the increase of urban population are treated as the causes of the informal sector in this paper.

- School enrolment

  It is rather a conventional wisdom that the level of education often determines occupations. Many researches find a positive relationship between education spending and GDP growth. Majgaard and Mingat (2012) affirm that educational investment builds skilled workforce in sub-Saharan countries. Furthermore, Mallick, Pradeep, and Prahan (2016) detected a similar conclusion that education is amongst the most important factor for economic growth in 14 Asian countries. Considering these evidences with Kuznets' theory of the origin of income inequality, one could come into the assumption that low level of education of agricultural labours abate the chance for him/her to access a decent job in the formal sector,

or that to get inform about the rights which he/she could obtain as a labour in the formal sector.

- Regulation Quality

Johnson, Kaufmann, and Schleifer (1997) prognosticated a negative correlation between regulation intensity and a level of the development of the informal sector. To be more specific, they proposed that the significant of the relationship between a regulation and the size of the informal sector might lay on the quality of law enforcement than the quantity of the regulation. Therefore, the variable shows the ability of the government to enforce policies and regulations promoting the development of enterprises.

- Quality of Institution (government effectiveness)

The quality of an institution is another crucial factor determining the size of the informal economy. An effective government is expected to provide good public services for the people. Otherwise, they might turn to the informal sector to subsidize their own living cost if the wage is too low. Hence, the variable 'government effectiveness' measures the quality of public services and the credibility of the government to provide public projects. This variable also measures how independent public service are from governmental influences.

- Formal Economy (GDP Growth and unemployment rates)

Referring to Hart (1973), the informal sector in developing countries tends to develop in parallel to the formal sector. Precisely, he argued that the output from the formal sector acts as the input of the informal sector as labours have to extend their earnings for urban living. In addition, Schneider and Williams (2013) and Feld and Schneider (2010) argued that the development of the official economy plays a key role in reducing the size of the informal economy. Taking these arguments into consideration, whether the relationship is parallel or inverse, the growth of Gross Domestic Product (GDP growth) should be included as a cause-variable in this analysis. Also, economic development offers more employment positions in the official economy; reflexed as lower unemployment rates.

- Agricultural output

The Kuznets' explanation of the origins of income inequality explicitly announces the significance of labour transfer from agricultural sector to industrial sector. If this is the case, a decrease of agriculture output might indicate the size of the informal sector as it is easy to participate informal economic activities.

- Control of corruption

  Without transparency or check-and-balance mechanism, people might be convinced to enter the informal sector regardless the quality of the public sector because they feel disadvantaged by political elites. This variable estimates the degree political power operating for private gains, including bribes from local and foreign businesses to the administration as well as political credibility of politicians.

Indicator Variables

- Electric consumption

  Employing the electric consumption as the indicator for the informal economy has been attractive for many scholars. Del Boca and Forte (1982), Kaufman and Kaliberda (1996), and Johnson, Kaufman and Shleifer (1997) have applied the electricity method on the assumption that the total electricity comprises of consumptions used for production in both the formal and the informal sector. They employed the consumption as a proxy for total GDP. According to these scholars, when subtracting the formal GDP from the consumption, the result is the size of the informal GDP or informal sector.

- Broad money to total reserve ratio

  Broad money to total reserve ratio denotes the total money in the market outside banks. Since economic activities in the shadow economy are generally performed in order to avoid governmental inspections, broad money to total reserve ratios should therefore highlight the amount of money in the informal sector.

- Tax revenue

  Income taxed by the government is a source of government public spending. Hence, when the governmental tax revenue decreases, it means public services might be less developed In turn, this could fosters individuals entering the informal sector. Additionally, less tax revenue could possibly be assumed that some amount of income shifted to the shadow economy.

- Labour participation rate

  Labour participation rate indicates the percentage of active labour in compare with total population in working ages. Low labour participation rates in the formal sector might, thus, signify high labour participation rates in the informal sector.

II.   The MIMIC Model

For this paper, the MIMIC model of the structural equation analysis binding all the above-mentioned variables could be illustrated as in the figure 4. In the diagram, the 16 causal variables are indicated in the black boxes, while the 4 indicator variables are indicated in the orange boxes.

Figure 4. The MIMIC model for measuring the size of the informal Sector
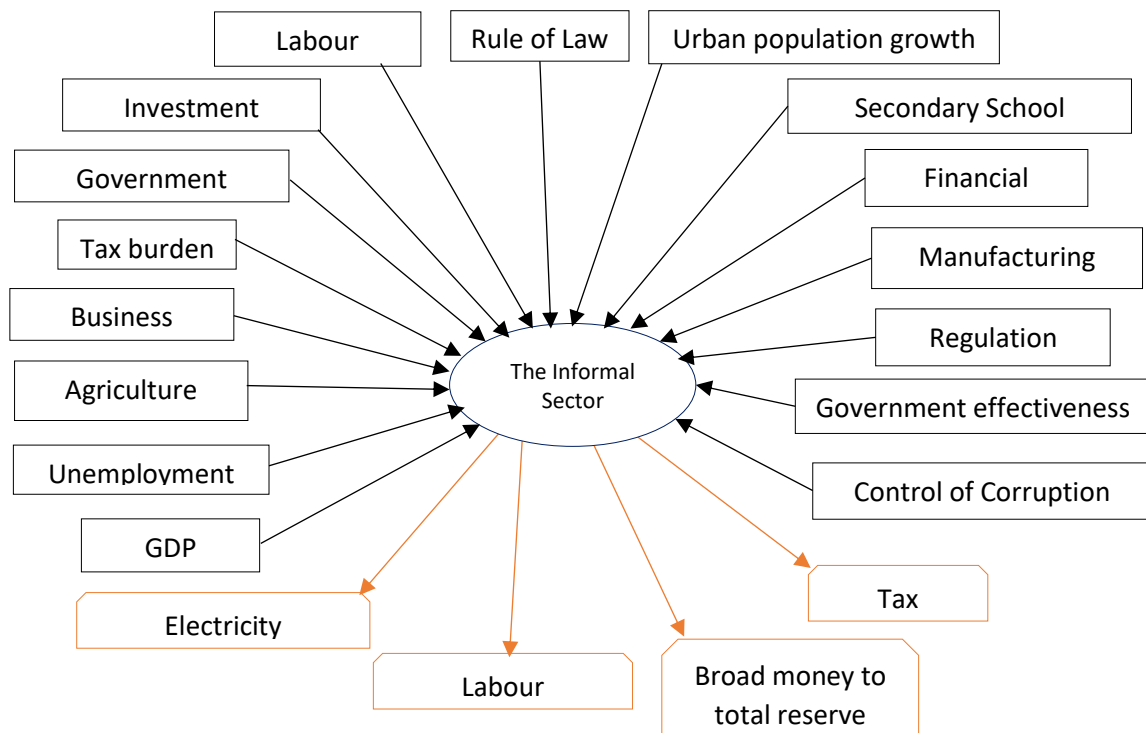
III.   Measuring the Absolute Size of the Informal Economy: Benchmarking

By structural equation analysis, the MIMIC model could produce only a predicted relative size of the informal economy. The analysis would cluster the magnitudes of all direct effect (as indicated in the figure 4.) and indirect effect (the covariances between causal variables) to produce a number of a relative size of the informal economy for each observation. From this point, a method of producing the absolute size of the informal sector is essential.

Benchmarking technique employed in this paper follows the line of Schneider, Buehn and Montenegro (2010). In their research paper, they applied this technique to estimate the size of the informal sector in 162 developing countries from 1999 to 2007. The technique is to use a

value of the baseline year for calibrating the absolute size from the relative size of the informal sector. In the same vain, this research will apply the estimated absolute size of the informal economy of the year 2003 from the Schneider et al. (2010) as the value of the baseline year.

Table 1. The size of the informal economy (% of GDP) in 1999-2007 by Schneider et al.

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007
Poland	27.7	27.6	27.7	27.7	27.5	26.3	26.9	26.4	26.0
Turkey	32.7	32.1	32.8	32.4	31.8	31.0	30.0	29.5	29.1
Hungary	25.4	25.1	24.8	24.5	24.4	24.1	24.0	23.7	23.7
South Korea	28.3	27.5	27.3	26.9	26.8	26.5	26.3	25.9	25.6
Greece	28.5	28.7	28.2	28.0	27.4	27.1	26.9	26.4	26.5
Thailand	53.4	52.6	52.4	51.5	50.2	49.6	49.0	48.5	48.2
Indonesia	19.7	19.4	19.4	19.3	19.1	18.8	18.6	18.3	17.9
India	23.2	23.1	22.8	22.6	22.3	22.0	21.7	21.2	20.7
Niger	41.7	41.9	40.9	40.3	39.7	40.7	49.7	38.6	-
South Africa	28.4	28.4	28.4	28.0	27.8	27.1	26.5	26.0	25.2

Source: Schneider et al. (2010)

Table 1. shows the absolute size of the informal sector calculated by Schneider et al. for the year 1999 to 2007. The ten countries in the table are the case studies for this research, including five OECD and five non-OECD countries. The data of the OECD countries are indicated in the blue table, while of the non-OECD countries are in the orange table. From the table, the outflow of the size is generally contracting over time-period. Therefore, the value of 2003 of each country is employed as the baseline year for benchmarking in this paper as it is closest to the average value of the country.

To calculate the absolute size of the informal economy, the following mathematic function is applied:

$$\hat{n}_t = \frac{\tilde{n}_t}{\tilde{n}_{2003}} n_{2003}$$

Where $\tilde{n}_t$ denotes the relative size of the informal sector of the year t as calculated by the MIMIC model, $\tilde{n}_{2003}$ is the relative size of the informal sector of 2003 calculated by the MIMIC model. n_{2003} is the value of the absolute size of the informal sector of the year 2003 as measured by Schneider et al. Through this benchmarking procedure, $\hat{n}_t$ is the absolute size of the informal sector for this research.

To illustrate how the benchmarking technique functions. An example of calculating the absolute size of the informal sector of Poland in 1995 is demonstrated. From the MIMIC model, the relative size of the informal sector of Poland in 1995 is 6866.85, and in 2003 is 7466.313. Therefore, the absolute size of the informal sector for Poland in 1995 can be formulated as following: $\hat{n}_{1995} = \frac{6866.85}{7466.313} \times 27.5$ As a result, the absolute size of the informal sector for Poland in 1995 is 25.29205 percent of its GDP.

5.2 Democracy Correlation: Regression Analysis

The third part of the analysis for this research applied the absolute size of the informal sector to regression analyses with an index of income inequality. Having democracy as the subject of analysis, this part will estimate the relationship between different perspectives of democratization. To be more specific, dependent variables for the regressions will include democratization and democratic sustention (i.e. the length of the first 10 years that democracy survives after democratization). The independent variables for the regressions include income inequality, the size of informal sector, and the interaction between the two independent variables. In short, the regression analysis will be separated into two groups according to the dependent variables. Each group contains three regressions to tests how the size of the informal sector and its interaction with income inequality change the pattern of the correlations.

The correlations between these variables will be estimated by a panel regression method. The method supposes to capture the development of the variables. A panel logistic regression method suits the nature of the democratization data as the variables is nominal (and binary): either democratize or not. In contrast, the data of democratic sustention is continuous. To this point, linear regressions for panel data will be employed for democratic sustention analysis while the democratization analysis will be executed by logistic regressions.

Above and beyond, three control variables are included in the analyses: being an OECD country, being a post-Soviet country, and country-specific characteristics (for the democratic sustention analysis). The first two control variables are established due to assumptions on international influences. On the ground that an institution, especially economic institutions, usually have a high influence on the national economy, being an OECD member state might lead to a more advance economic development and a smaller income inequality with smaller informal sector. Furthermore, a post-Soviet country might find it more difficult to democratize

and more likely to have democratic breakdown than other countries which have less influence from Russia. On a national level, a country specific variable is included as a control variable. The reason behind the variable is that every country has different norms, social structure, history, etc. which cannot be measured, yet they affect the national economic development. These kinds of characteristics are grouped as the country-specific variable. However, regressions on democratization events do not permit the country-specific variable as the event is rare.

To represent the regression analyses, equations could be constructed as follows:

Group1: Democratization event (panel logistic regression analysis)

(1): $\text{democratization}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it}$

(2): $\text{democratization}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} +$
$\beta_4 \text{informal sector}_{it}$

(3): $\text{democratization}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} +$
$\beta_4 \text{informal sector}_{it} + \beta_5 \text{income inequality}_{it} * \text{informal sector}_{it}$

Group 2: Democratic sustention (linear regression analysis)

(4): $\text{democratic sustention}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} +$
$\beta_4 Country\ Specific\ Characteristic_{it}$

(5): $\text{democratic sustention}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} +$
$\beta_4 Country\ Specific\ Characteristic_{it} + \beta_5 \text{informal sector}_{it}$

(6): $\text{democratic sustention}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} +$
$\beta_4 Country\ Specific\ Characteristic_{it} + \beta_5 \text{informal sector}_{it} +$
$\beta_6 \text{income inequality}_{it} * \text{informal sector}_{it}$

Where the subscript i and t denote the country and year, respectively.

5.3   Conclusion

To answer whether the size of the informal sector is significant in the relationship between democracy and income inequality, this paper employs a three-tier analysis. The first tier is to estimate the size of the informal sector. On this level, the Structural Equation Model analysis is the method for the estimation of a relative size of the informal sector. Later, the benchmarking technique is applied to yield a predicted absolute size of the informal sector. On the second tier, historical explanation of trends and possible correlations between the income inequality and the size of the informal sector will be illustrated. In this tier, historical analysis should enclose how politics influence the informal sector and income inequality. Lastly, the predicted sizes of the informal sector are employed as one of the independent variables together with income inequality, their interaction effects, being an OECD country, being a post-Soviet country, and country-specific characteristics. Having democratization, and democratic sustention as dependent variables, six regressions will be executed in this level: three regression for each dependent variable. These three regressions aim at testing whether the size of the informal sector and its interaction with the income inequality have meaningful effects on the relationship between income inequality on the one side, and democratization and democratic sustention on the other side.

6. Case studies

Despite ranking in the 3rd highest share of the informal sector in the world, only few studies of informal sector focus on Asian countries. According to International Monetary Fund (IMF), there are 30 countries in Asia categorised as emerging and developing countries[20]. In addition, the informal economy in African countries is also expected to be large. The informality of the economy in Africa, contrasting with its own term, is so big that could be easily observed. The visibility is confirmed since 1971 by the anthropologist, Keith Hart, observing the informal economy in Ghana. Moreover, the ILO report in 2014 indicates that around 66 percent of the total employment in Africa is a non-agricultural employment in the informal sector. To this point, if the informal economy is to be expected in developing countries, evidences from Asian and African countries should not be neglected. As economic institution is expected to have

---

[20] Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China; Fiji, India, Indonesia, Kiribati, Laos P.D.R., Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Myanmar, Nepal, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu and Vietnam

influences on the informal economy, countries participating international economic institutions should be included in the analysis to test this hypothesis. To this point, OECD countries are appropriate case studies since the organization consists of many developing countries within and outside Europe where liberal economic principles are practiced.

Having democratization as the subject of analysis, countries with a history of repeated democratization is favoured. For the non-OECD cases, data limitation allows only Thailand and Niger to be the case studies. However, only cases of democratization in these two countries are insufficient for a good statistical analysis. Therefore, India, Indonesia and South Africa are included as they have experienced democratization at least once in the post-modern era, with the latter on the purpose of investigating the effect of the informal sector to democracy in Africa. Choosing case studies among OECD countries is challenging. Most OECD countries are strong and consolidated democracies. To this, the criteria for OECD countries is the experience of democratization at least once in the post-modern era. Considering the criteria with data limitation, Greece, Hungary, Poland, South Korea and Turkey are chosen as case studies; with the latter two on purpose of investigating the institutional effect of being outside European Union.

Despite democratization in these countries in post-modern period, the time of democratization varies. Hence, each case study contains different time frame: starting from the year before the first democratization occur but after the last regime change. The starting point also exclude years of which missing data is large. As a result, the time frame for each country case studies are as shown in table 2.

Table 2. Time frames of each case studies

Countries	Time Frame
OECD Countries	
Greece	1967-2018
Hungary	1980-2018
Poland	1983-2017
South Korea	1975-2018
Turkey	1990-2018

6.1   Historical Background

This part provides a summarize of political historical background of democratization in each case studies; including five OECD (Greece, Hungary, Poland, South Korea and Turkey) and five non-OECD countries (India, Indonesia, Niger, South Africa and Thailand).

I.   OECD Countries

• Greece (1967-2018)

The cradle of the Western civilization and the birthplace of democracy has been for 7 years in junta before democracy flourished after the Cold War. During 1967 to 1974, Greece was under military control which suppressed freedom and human rights of Greeks. More than that, political oppressions and civil rights suspension took place. Economic growth of Greece at the time was rather rapid until 1972, just a year before democratic protest arose in 1973. The Athens Polytechnic uprising in 1973 marked a turning point for Greece toward democracy. The polytechnic students protest against the junta. Although resulted in bloodshed, the protest evoked the momentum against the military throughout the country. In July 1973, Greek constitution was pushed by a military leader turning Greece into a presidential republic and constrained the power of the monarchy. However, the military was ousted in 1974 when Turkey attempted to invade Cyprus. The invasion put pressure on the junta as it had to deal with the invasion, on the one hand, and the economic recession, on the other hand. The five-day period between 20 to 24 July 1974 had been the decisive moment for Greek democracy. It began with the Turkish invasion, followed by the fall of the junta and then the formation of a government which permit multi-party election in November 1974. Since then, Greece has turned into a consolidated democracy.

- Hungary (1980-2018)

The main reason for the People's Republic of Hungary to transform into the Republic of Hungary is its economic recession. A long- term economic decline had put pressure on Hungarian's socialism to liberalize its economy by the 'New Economic Mechanism' in 1968. Nonetheless, the economic reformation did not improve Hungarian economy since the policy is de-facto rather a protectionism. During the 1970s, individual Hungarians had to deal with the economic downturn. In 1980s, Hungary's political standpoint deviated from Kremlin's as it permitted people from East Germany to escape the socialist regime by fleeing through Austria and Hungary, entering West Germany. The standpoint was firmly supported by the Hungarian Foreign Minister and Hungarian people at the time. As a consequence, the demand for economic reformations to improve the economic situation since 1970s were moving towards liberalism, having a free democracy as a pre-requisite. The 1988 adoption of 'democracy package' indicated the breaking point of Hungary's political independence from the Kremlin, pushing Hungary towards market economy. In 1989, Hungarian parliament adopted legislations allowing a multi-party election system, turning the People's Republic of Hungary into the Republic of Hungary which praise the principles of human and civils' right under democratic political structure. Hungary's democracy was shaken again in 2006 when Prime Minister Ferenc Gyurcsány admitted fake information the government had been giving to Hungarians during the past half-term of the government. This too caused a bloodshed of anti-government demonstration before the Minister of Justice and the Police chiefs have resigned in 2007. Since then, Hungary has preserved its democracy until the second government of Victor Orbán, which was formed by winning a supermajority from 2010 parliamentary election. By this, the government drafted a new constitution which was widely criticized of centralizing power to the government and decreasing check-and-balance institutions.

- Poland (1983-2017)

The path to democracy of Poland began from the young workers' demand for their representative solidarity trade union to be re-legalized after being dissolved by martial law in 1981. Amidst the elite-led capitalist economy since mid-1980s, the workers strike occurred in 1988. The strike was halted by a negotiation between the leader of the Solidarity and government representatives which resulted in legalizing the Solidarity and a free parliamentary election in 1989. The solidarity won the election and formed a non-Communist government

with the first non-Communist Prime Minister since post-war period. By the end of 1989, the People's Republic of Poland has turned into the Republic of Poland. In 1990, the leader of the Solidarity won presidential election, marking the birth of democracy. The Warsaw Pact, as opposed to NATO, was dissolved in 1991, following by the retraction of Russian troops from Poland in 1993. Democracy in Poland, however, seems to be pulled back when the right-populist party won the parliamentary election by majority in 2015. Since then, the Polish government has been criticized of being right-extremists and the most right-wing parliament among European nations.

- South Korea (1975-2018)

South Korea had held an indirect presidential election system since 1972. In 1979 a coup d'état took place but the military President Chun Doo-Hwan decided to hold an election in 1985 to gain his political credits domestically and internationally. Nonetheless, as the opposition tend to win the election by suggesting a direct presidential election system. Thus, the military President attempted to delay the election. In 1987, Chun announced the postponement of the election with the introduction of his successor, Roh Tae-woo. The announcement sparked university student protests which lead to the death of two student leaders. The protest had finally spread to different social parts around the country. Avoiding a massacre before the upcoming Olympic 1988 in South Korea, Roh decided to participate an election in December 1987. Being elected, he promised a constitutional amendment for civil rights which took effect in early 1988; resulting in direct presidential election system and turning South Korea into democracy. Democracy of South Korea was levelled up in 1993 when Kim Young Sam was the first civilian elected president under a free and fair election.

- Turkey (1990-2018)

Turkey has been a democracy with military traits since it became the Republic of Turkey. The country has embraced the concept of Kemalism in its constitutions differently. The last constitution 1982 emphasize the national solidarity and public peace, while the constitution 1961 underlined fundamental rights. Prime Minister Recep Tayyip Erdogan, having been re-elected for three terms, proposed to amend the constitution 1982 allowing the President to have more executive power. As he was not legitimised to run for the general election in 2015, the proposal was criticized to be Erdogan's attempt to prolong his political power. The 2011 Erdogan's government was castigated of corruption, being rather authoritarian and non-secular. e.g. limiting freedom of press and speech, inducing Islamic courses in schools, and the right to

free assembly. In addition, rapid economic growth of Turkey accelerated modernization and urbanization without taking popular opinion concerning environmental issues into account. This sparked the Gezi Park protest in 2013 preventing the construction of shopping mall over the park. Despite the cancellation of the construction project in the end, Erdogan was condemned of using non-diplomatic ways and harsh police force to handle the protest.

II. Non-OECD countries

- India (1965-2018)

India has been for decades a consolidated democracy except for the short period from 1975 to 1976. Since late 1970s, Prime Minister Idira Gandhi gaining control over judicial power and the government was negatively perceived as employing counter-democratic principles. The prime minister was re-elected in 1971 with accuses of election frauds from her defected candidates, Raj Narain. In 1975, the Allahabad Hight Court found the Prime Minister guilty of those accuses. The Prime Minister fought the case in the Supreme Court and her supporters went for a demonstration in Delhi in parallel with international admirations of Narain's four-year attempt for justice. Finally, advised by the Prime Minister, the President proclaimed the state of emergency on the ground of internal threats. The protests and strikes have induced economic downturn which the government was uncapable to cope with regarding the protests as domestic disturbances. The state of emergency allowed Mrs. Gandhi to arrest her political oppositions including anti-government protests' leaders and other human rights abuses such as forced vasectomy of Muslims in 1976. By January1977, the emergency was withdrawn and the general election was held in March.

- Indonesia (1982-2018)

The large step towards democracy for Indonesia began in 1998 when President Suharto decided to step down from political activities. The resignation was not unexpected as there had been anti-Suharto's authoritarian occurring several years before the resignation. As Suharto's successor, B. J. Habibie took the position and embraced a free election by pursuing a multi-party system. From the election, Wahid's cabinet from 1999 election consisted of various political parties. President Wahid launched policies towards liberal society and attempted to deconstruct the Ministry of Information, which is the main mechanism for Suharto's authoritarianism to control the media. This led Indonesia towards stronger democracy during

his term from 1999 to 2001. However, he was accused of corruption and suppressed to resign in 2001 by a coup. The coup put Megawati Sukarnobutri on the position of President. Nonetheless, she minimalized her political intervention in the government. Additionally, Indonesian politics has been involved with the military since then.

- Niger (1985-2018)

After its independence from being a French colony in 1960, the Republic of Niger was governed under a constitution before coup d'état took place in 1974. However, the death of the coup's leader in 1987 led to a democratic reformation and the introduction of a constitution in 1989. The constitution, nevertheless, did not allow multi-party elections. Niger's democracy was able to flourish in 1993 when a referendum approved a new constitution. This constitution, having been in drafting process since 1992, created a civilian national assembly in order to balance the power of the elected President and Prime Minister and to rule out military power in politics. For three year has the national assembly been protecting civil rights and human rights. In 1996, another military coup took place. The coup leader wrote a constitution favouring strong executive power. However, once again the death of the coup leader led to democracy in 1999. The constitution of 1999 resembles much of the 1992 constitution. Only the 1999 version expand the number of representatives in the national assembly with 5 percent electoral threshold. In 2009, President Mamadou Tandja managed a referendum for a new constitution which would turn Niger to a full-presidential system. However, the Constitutional court repudiated the referendum. Tandja responded by declaring the state of emergency but was finally overthrown by a coup in 2010. In late 2010, another new constitution was adopted by a simple majority through referendum.

- South Africa (1985-2018)

South Africa has been in an apartheid until 1994. In 1994, Nelson Mandela, the first elected President of South Africa, established African National Congress consisting of representatives from different political parties. The government aimed at recovering the social and economic situations which were damaged during the apartheid. Additionally, the first constitution of South Africa was enforced the next year. However, Mandela lost his presidency to Thabo Mbeki in the next election in 1999. Mbeki's government was shaken in 2005 when the deputy president, Jacob Zuma, was charged for corruption. Nonetheless, supporters of Zuma in the political party has increased until 2007 when Mbeki finally lost his presidential candidate position to Zuma for the upcoming election in 2009. During this time, the country's economic

policies was bent away from liberalism as Mbeki was rejected. In 2008, the court found Mbeki's political intervention on Zuma's charge. Thus, Mbeki was recalled from the position and finally resigned. Kgalema Motlanthe was appointed as the president since then until election took place in 2009 giving the presidency to back to Zuma. From 2009 to 2018, Zuma has run the country as the president with accuses of corruption from time to time. The death of Nelson Mandela in 2013 also marked a crucial change of the history of South Africa.

- Thailand (1990-2018)

The 1991 coup d'état took political power from the elected Prime Minister Chatichai Choonhavan in charge of corruption. However, democracy seems to be quickly resumed after the general election in 1992, except that the elected Prime Minister is now the leader of the 1991 coup, Suchinda Kraprayoon. The fact invoked a large demonstration in Bangkok which then was suppressed by military force under Kraprayoon. The anti-government riot was set to resolved by the King Rama IX. This resulted in Kraprayoon's resignation and the King's appointed Prime Minister, Chuan Leekpai. In 1995, a general election took place but has to be repeated again in 1996 as the Prime Minister elected in 1995 was charged with corruption and forced to resign. Nonetheless, the new Prime minister of 1966 election also resign by dint of incapability to cope with 1997 Asian Financial Crisis. In 1997, however, the first constitution drafted by popular elected constitutional drafting assembly was enforced. The constitution restructures the parliamentary system to bicameral system and require the members to be directly elected. During 1997 to 2001, Chuan Leekpai took the position of a temporary Prime Minister.

In the 2001 election, the political party called "Thai Rak Thai" (TRT) led by Mr. Thaksin Shinawatra won by campaigning populist policies, aimed at recovering Thailand's economy from the 1997 Asian financial crisis. During the four years legislation period of the government, the TRT managed to alleviate Thailand's economic downturn but failed to provide transparency in the operations of many policies. This provoked the anti-Thaksin demonstration (known as "yellow shirt" and pro-Thaksin demonstration (known as "red shirt"). However, the TRT won the 2005 election with absolute majority but Mr. Thaksin dissolved the parliament. Yet, the TRT won the election again in 2006 but the election was cancelled due to low voter turnouts. Finally, coup d'état took control in September 2006 while Mr. Thaksin was on duty abroad. The coup cancelled the upcoming election scheduled for 19th October 2006, abolished the constitution, denied any political activities and gatherings with political purposes, took

control over media and announced martial law. Until now, Mr. Thaksin has been living abroad in exile. Pheu Thai Party, a TRT disguised party, won the election in 2011. The elected Prime Minister Yingluck Shinawatra, a younger sister of Mr. Thanksin, attempted to launch the bill clearing Mr. Thanksin's corruption guilts. Again, the anti-Thaksin demonstration is provoked. As a consequence, Ms. Yingluck announced dissolution of the parliament in 2013. In 2014, the Royal Thai Army declared martial law. A week later, coup d'état seized the political power. Under the leadership of General Prayuth Chan-Ocha, the coup promised to bring back peace to the society and to resolve political conflicts. Despite its promise of resuming a free and fair election as soon as possible. The coup cancelled the constitution, drafted a new constitution, prolong an election until 2019 which promote General Prayuth to an official elected Prime Minister.

6.2   Conclusion

Providing that the informal sector is rather a phenomenon for developing countries, this research paper aimed to focus on these countries with repeated democratization. Nonetheless, such strict requirements and limitation of data for developing countries permit only two countries available for case studies (Niger and Thailand). Since democratization is a rare event and those case of Niger and Thailand is insufficient for statistical analysis, other countries are included under less constraint requirement: having an experience of democratization at least once in the post-modern period (from 1950s onwards). The relaxed prerequisite allows India, Indonesia, and South Africa included as the case studies for non-OECD countries. In addition, Greece, Hungary, Poland, South Korea and Turkey are included as the case studies for OECD countries to test the interruption effect of international institution on the correlation of the informal sector and democracy.

7. Data

This section explains the statistical characteristics and the sources of data employed in this research paper. This section is divided into two parts. The first part of this section concerns variables for the MIMIC model estimating the relative size of the informal sector. In this part, methods managing missing values are explained. These methods include 'Last Observation Carried Forward' (LOCF), 'Next Observation Carried Backward' (NOCB), and 'maximum likelihood for missing value' (MLMV) which are applied in different conditions. The second part involves an explanation of data for democratic regressions. Variables for the regression analyses are the income inequality, democracy, and some control variables. As this research paper aims to explain some democratic phenomenon, namely democratization and democratic sustention, the variables for these phenomena are coded from an indicator of regime transition towards democracy. The coding method is explained in this part.

7.1   MIMIC model

In line with the research from Vo and Ly (2014), which measure the size of shadow economies in 8 developing ASEAN nations, this paper employs 9 variables from their analysis, including tax burden, government spending, financial freedom, labour freedom, business freedom, unemployment rate, broad money to total reserve ratio, tax revenue, and labour participation rate. To further their research in order to prove the Kuznets' theory of the origin of inequality, this paper will include 4 more variables: secondary school enrolment, manufacturing value in percentage of GDP, agriculture, fishing and forestry in percentage of GDP, and urban population growth. Moreover, another 7 variables are included in the test. First, the variable 'rule of law' could explain the size of the informal sector as the people's lack of obedience to the rule leading to an increase of the size of the informal sector. The second variable is the intensity of rules supporting free investment could enhances the informal sector. The third variable is the GDP growth in the formal sector might enforce informal sector growth. The fourth variable is the ability of the government to produce appropriate policies promoting the development of the private sector which could indirectly, shrink the size of the informal sector (measured as regulation quality).The fifth variable is the independency of public services from political pressures which might decrease the informal sector as people have more trust on the institutions or projects of which standpoints are reliable. The sixth variable is the mechanism to control corruption which is crucial for building public confidence in politics and, hence,

avoid people entering the informal sector. The last variable is the electric power consumption as it could capture manufacturing in the informal sector. All in all, 20 variables will be bestowed in this study. Short descriptions and sources of the variables are explained in the table 3.

Table 3. Sources and short descriptions of variables

Variable	Source	Short description
Tax burden	Heritage Foundation	Marginal tax rate % of GDP
Government spending	Heritage Foundation	State consumption, transfer payment
Financial freedom	Heritage Foundation	State independence of financial sector
Labour freedom	Heritage Foundation	Intensity of labour regulations
Business freedom	Heritage Foundation	Efficiency of business operation
Investment freedom	Heritage Foundation	Degree of supporting free investment
Unemployment rate	ILOSTAT database	Share of labour force without work
Rule of law	WGI*	Confidence of complying rules
Manufacturing value % of GDP	World Bank database	Net manufacturing output % of GDP
Secondary school enrolment	World Bank database	School enrolment after primary % gross
GDP growth	World Bank database	Gross value added + tax - subsidies
Labour force participation rate	ILOSTAT database	Active labour at age 15 to 64
Government effectiveness	WGI*	Political independency of public services
Regulation Quality	WGI*	Appropriateness of economic policies
Control of corruption	WGI*	Degree of public trusts in politicians
Broad money/total reserve ratio	IMF	Sum of currency outside banks
Tax revenue % of GDP	IMF	Transfers to the gov. for public purposes
Urban population growth	World Bank database	People living in urban areas
Electric power consumption	World Bank database	kWh per capita
Agriculture, fishing, forestry % of GDP	World Bank database	Net agricultural output % of GDP

* Worldwide Governance Indicator

Structural Equation Model (SEM) will be performed on panel data of 15 variables during the period of 1995 to 2019 from 5 OECD countries: Poland, Turkey, Hungary, South Korea, and Greece, and from 5 developing non- OECD countries: Thailand, Indonesia, India, Niger, and South Africa. Noted that some data of these countries are missing, the methods 'Last Observation Carried Forward' (LOCF) and 'Next Observation Carried Backward' (NOCB)

was applied to impute missing data. Despite the possibility of being bias from the LOCF and NOCB methods, it is important to note that the missing data employing the methods are accounted for around only 10% of the total observation. However, some countries do not provide data for some variables. These countries include Greece and Niger missing the 'broad money to total reserve' variable, and India missing most of the 'secondary school enrolment' variable. For these missing values, the 'maximum likelihood for missing value' method is applied to impute these missing values.

Table 4. Summary statistics for the causal and indicator variables

Causal Variable	Mean	Minimum	Maximum	Std. Dev.
Tax burden	69.53	44.30	83.70	9.45
Government spending	67.34	2.90	95.80	22.68
Investment freedom	55.86	30.00	80.00	14.22
Business freedom	65.41	28.80	93.60	12.93
Labour freedom	56.40	28.26	86.09	11.64
Rule of law	0.21	-0.91	1.18	0.55
Urban population growth	1.83	0.97	4.76	1.43
Financial freedom	52.44	30.00	80.00	13.74
Secondary school enrolment	71.96	5.28	98.17	25.68
Manufacturing % of GDP	17.82	4.76	31.95	7.03
Regulation Quality	0.29	-1.15	1.31	0.56
Government efficiency	0.27	-1.24	1.25	0.54
Control of corruption	-0.03	-1.18	0.82	0.52
GDP growth	3.92	-13.13	11.85	3.49
Unemployment rate	8.48	0.26	33.47	8.21
Agriculture, fishing and forestry % of GDP	10.74	1.43	43.40	10.76
Indicator Variable	Mean	Minimum	Maximum	Std. Dev.
Electric power consumption	3031.54	29.81	11055.97	2490.52
Labour force participation rate	65.59	48.49	80.69	8.42
Broad money to total reserve ratio	4.48	1.69	31.13	2.89
Tax revenue % of GDP	18.36	7.08	27.75	5.04

Table 4. demonstrate summary statistics of causal and indicator variables. The summary includes means, minimum values, maximum values and standard deviation of each variable. These number shows that the data of most variables are gathered around the mean. However, data of the rule of law, regulation quality, government efficient and agriculture, fishing and forestry % of GDP are rather dispersed from the mean.

7.2   Regression Analysis: Democracy, Income Inequality and the Informal Sector

The second part of this paper engages in the correlation between the income inequality, the size of the informal sector and democracy; precisely, the democratization and democratic sustention. The variables 'democratization' and 'democratic sustention' are built on the indicator of regime changes. For this reason, two main variables will be managed: income inequality and regime changes.

I.   Independent Variables

For income inequality, the top one percent earners share of income of a country will be employed as Gini indices are missing for many countries of the case studies. Furthermore, the Gini index rules out some inequality event. For example, when income inequality between the middle and the poor is reducing, the gap between the income of these group and the rich is getting larger. In such situation, Gini indices do not exhibit the actual income inequality between social strata. The data of the top one percent share income is derived from World Inequality Database. The data is calculated from different sources of indicators including national account, survey data, fiscal data, and wealth rankings. The statistical summary of the variable is show in table 5.

Table 5. Summary statistics for the independent variable

Variable	Mean	Minimum	Maximum	Std. Dev.
Top 1% share income	0.13	0.02	0.28	0.06

The other variable of interest is the absolute size of the informal sector which is the result from the first part. In addition, two binary variables are also included in the analysis. The OECD variable is coded 1 for OECD countries (Poland, Hungary, Greece, South Korea and Turkey) and 0 for non-OECD countries (Thailand, Indonesia, India, Niger and South Africa). Post-soviet is the other variable. This variable is coded 1 for Hungary and Poland in 1989 to 1991. Noted that the data for the informal sector estimation only available from 1995 onwards, case

studies which aimed at explaining democratization before 1995 needed to have the size of the informal sector extrapolated.

II.   Dependent Variables

Data of regime changes are derived from V-Dem project Version 9 (2019) which includes codes according to regime changes from 1789-2018 in 202 countries. The data is calculated by a cluster of more than 500 indices, 85 of which is coded by the project staffs, regional co-operators, and country experts. The main coding methodology is based on historical facts e.g. the frequency of elections happened in the year and being colonized under seven principle: electoral, liberal, participatory, deliberative, egalitarian, majoritarian, and consensual principles. Through this, the data provide coding for four different regimes. The data is coded 0 for closed autocracy (no election), 1 for electoral autocracy (autocracy with election but no multiparty system or the system is not free and fair), 2 for electoral democracy (democracy with free and fair election to some extent) and 3 for liberal democracy (democracy with free and fair election). These division of regimes reflect the concept of democracy for this researched as described in the conceptualization section that democracy should be considered more than an election.

From the V-Dem project dataset, another two variables are generated, namely democratization and democratic sustention. The variable 'democratization' is coded 1 when the regime changes from closed or electoral autocracy to electoral or liberal democracy. For this variable, observations when a country is already a liberal democracy is excluded on the ground that it has no chance to democratize anymore. The rest of the observations are coded as 0.

The variable 'democratic sustention' is coded according to Kapstein and Converse (2008)'s findings on democratic transition period. From a research of 123 democratic regimes, they discovered the length of democratic transition period as follows:

> "Of those cases that ended in reversal, the average length of the democratic episode was just under six years. Almost 68 percent of unsuccessful democratizations ended during the first five years and nearly 84 percent of unsuccessful democratizations failed within the first 10 years…Indeed, roughly one-quarter of all new democracies since 1960 failed within the first two years" (pp. 40).

From this finding, the period after democratization is coded 0 at the year democratization happened. This coding increased to 10 if there is no democratic breakdown in during this period. Table 6. shows an example of the coding for Thailand from 1995 to 2006.

Table 6. Coding democratic variables for Thailand

Year	V-Dem	Democratize	Sustention
1995	1	0	-
1996	1	0	-
1997	1	0	-
1998	2	1	0
1999	2	-	1
2000	1	0	-
2001	2	1	0
2002	2	-	1
2003	2	-	2
2004	2	-	3
2005	2	-	4
2006	0	0	-

Table 7. indicates the number of observations available of each democratic variable. It is important to mention that the coding method allows only 13 cases of democratization for the analysis. Although this might be sufficient for an analysis considering the total observation available is 145 observations, the very small number of democratization cases might also yield bias result.

Table 7. Summary statistics for the democracy regressions

Variable	Democratize	Sustention	Consolidation
Total observation	380	380	380
Missing observation	235	226	-
Total observation available	145	114	380

8. Findings

In order to explore the influence of the informal sector on the relationship between income inequality and democratization, this part is divided into three sections regarding different analytical processes. First and foremost, the size of the informal sector will be estimated by the MIMIC model as shown in figure 3. As this process could only yields relative sizes of the informal sector, the absolute size of the informal sector will be calculated by a benchmarking technique afterwards. In this first section, the question of interest is on compelling causal variables for the size of the informal sector and the difference of the sector in magnitude in OECD and non-OECD countries. In the second section, the size of the informal sector and the top 1% income share of each country will be plotted in graphs to reveal the trends and their correlations. Additionally, historical analysis will be employed to highlight anomalies in these trends. The last section comprises of regression analyses on democratization and its sustention. Through these analyses, the influence of the informal sector on democratization and income inequality should be clarified.

8.1   The Size of the Informal Sector

Retrieving the size of the informal sector, the first subsection presents the outcome of the MIMIC model as shown in figure 3. The outcome will be discussed in compare with different theories on the informal sector. The absolute size of the informal sector will be calculated in the second subsection by benchmarking technique of Schneider, Buehn and Montenegro (2010). Whether an organization has influence on the size of the informal sector will be discovered in this subsection i.e. if the size of the informal sector in OECD and non-OECD countries are different and how.

I.   The Relative Size of the Informal Sector

The first step to the size of the informal sector is to yield its relative size. The MIMIC model estimating the relative size of informal economy reveals the following coefficients.

Table 8. MIMIC output

Causal Variables	
Tax burden	15.49 (1.08)
Government spending	19.22 (2.42) **
Investment freedom	7.17 (0.80)
Business freedom	55.70 (4.07) ***
Labour freedom	-34.53 (-3.44) ***
Rule of law	933.25 (1.75) *
Urban population growth rates	-479.33 (-2.98) ***
Financial freedom	-8.73 (-0.82)
Secondary school enrolment	24.54 (2.10) **
Manufacturing value % of GDP	-34.57 (-1.07)
Regulation quality	1336.90 (2.34) **
Government effectiveness	2596.02 (4.06) ***
GDP growth	-12.27 (-0.46)
Unemployment rates	80.69 (3.76) ***
Agriculture, fishing and forestry % of GDP	110.79 (3.20) ***
Control of corruption	-1604.13 (-2.98) ***
Indicator Variables	
Electricity consumption	1
Labour force participation rates	-0.0014 (-6.56) ***
Broad money to total reserve ratio	0.0003 (3.03) ***
Tax revenue % of GDP	0.0016 (12.11) ***
Goodness-of-fit statistics	
Chi-square	106.881 *** (model vs saturated)
Degree of freedom	55
RMSEA	0.061
Lower bound	0.044
Upper bound	0.079
Observations	250

Notes: Z-values in parentheses. ***, **, * indicate statistical significance at the 99%, 95%, and 90% level, respectively.

Table 8. presents the MIMIC result of all the variables predicting the relative size of informal economy in 10 countries, including 5 OECD countries and 5 non-OECD countries. The overall goodness of fit of the model is indicated by the Chi Square test and the RMSEA (Root Mean Square Error of Approximation). As the Chi Square test of 106.881 indicates a poor fit, the model is assumed to reflect the data unwell. However, the Chi Square test for Structural Equation Modelling such as MIMIC is highly depended on the data sample size. Although the data sample of 250 observations seems relatively large for an analysis in general (Anderson

and Gerbing 1984, pp. 155-173), some academics contend for a more specific parameter defining a sufficient sample. Bollen (1989, pp. 268) suggests the number of independent variables as the parameter for a sufficient sample size. According to Lindeman, Merenda and Gold (1980, pp.163) and Weiss (1972), the ratio for a sufficient sample size should be 20 observations to 1 predictor variable. Taken the ration into account, this MIMIC model should contain 320 observations as minimum, considering the model has 16 independent variables. As the Chi Square test could be sample biased, other measurement for the model's goodness-of-fit should be interpreted.

Disregarding the sample size biases, the RMSEA measures the disparity between the estimated model and the sample's covariance matrix. The RMSEA of the MIMIC model is 0.061 which imply an adequate fit of the model (MacCallum, Browne and Sugawara 1996). The confidence interval of RMSEA is measured at 0.044 for the lower bound and 0.079 for the upper bound which are within the acceptable ranges i.e. within 0.05 for the lower bound and 0.08 for the upper bound. The confidence intervals indicate that the estimated RMSEA of 0.061 is within 90 percent level significance.

The table 8. also indicates the 99 percent level significance of positive correlation with the predicted relative size of the informal sector for business freedom, labour freedom, government effectiveness, unemployment rates and agriculture, fishing and forestry output value to the relative size of the informal sector. Among these four variables, 'government effectiveness' has the strongest effect. It implies that the higher quality of public services and trust of the government pushing public policies lead to larger informal sector. This implication is rather counter intuitive. Moreover, government spending is also positively correlated with the size of the informal sector with 95 percent significance. These relationships show that the advancement of the public sector might be the source of many informal payments in these countries of case studies. The assumption of the larger size of the informal sector in relation with governmental sector is underlined by the coefficient of the rule of law and control of corruption. Precisely, the strong, negative and very significance of the control of corruption variable indicates that the higher transparency of the government, the small the informal sector. However, the strong and positive correlation of the rule of law implies that the informal sector tends to grow according to the people's trust in the juristic institutions. Altogether, these variables lead to the conclusion that the informal sector grow in accordance with the defect within governmental organization, the executive and juristic branch in particular.

Liberal economy seems to enforce the informal sector. The positive correlation with 99 percent significance of business freedom ascertain that loosening business operational regulations by one point contributes to 55.7 point of larger informal sector. With strong but less significance than business freedom, the positive correlation of regulation quality points out that the more governmental regulations favouring development of enterprise, the larger the informal sector.

According to the result, both urban population growth rates and manufacturing output value is negatively associated with the size of the informal sector. Additionally, agricultural output value is positively correlated with the size of the informal sector. Although the coefficient of manufacturing output value is insignificance, the results could signify migration of labours from the rural area or from the agricultural sector to the industrial sector. Hence, the first part of Kuznets' assumption and the Lewis's dual-sector theory are persuasive. If education would give labours a voice for better welfare, then school enrolment should reduce the size of the informal sector. However, the MIMIC result shows that secondary school enrolment contributes greater size of the informal sector. Thus, the second part of Kuznets' assumption is invalid.

Nonetheless, the MIMIC result indicates that labour freedom is negatively correlated with the size of the informal sector. Given that labour freedom indicates regulation burdens in favour of labours' condition, the result implies that more benefits for labours could lead to decreasing informal sector. In contrast, unemployment rates contribute to greater size of the informal sector with 99 percent level significance. These results emphasize the idea of the Lewis model that the informal sector acts as a labour safety net for the industrial sector. Also, when labours from the agricultural sector is fully absorbed into the industrial sector, lacks of labour supply would yield better welfare for labour.

II.   The Absolute Size of the Informal Sector

To predict the absolute size of informal economy the benchmarking technique from Schneider, Buehn and Montenegro (2010) is employed. To put it simple, the technique calculated the size by using values from a year as the baseline. As mentioned in the previous chapter, this paper will apply the actual size of informal economies by using Schneider et al.'s estimations of 2003 as the base year.

Figure 5. Predicted absolute size of the informal sector from 1995 to 2019 (% of GDP
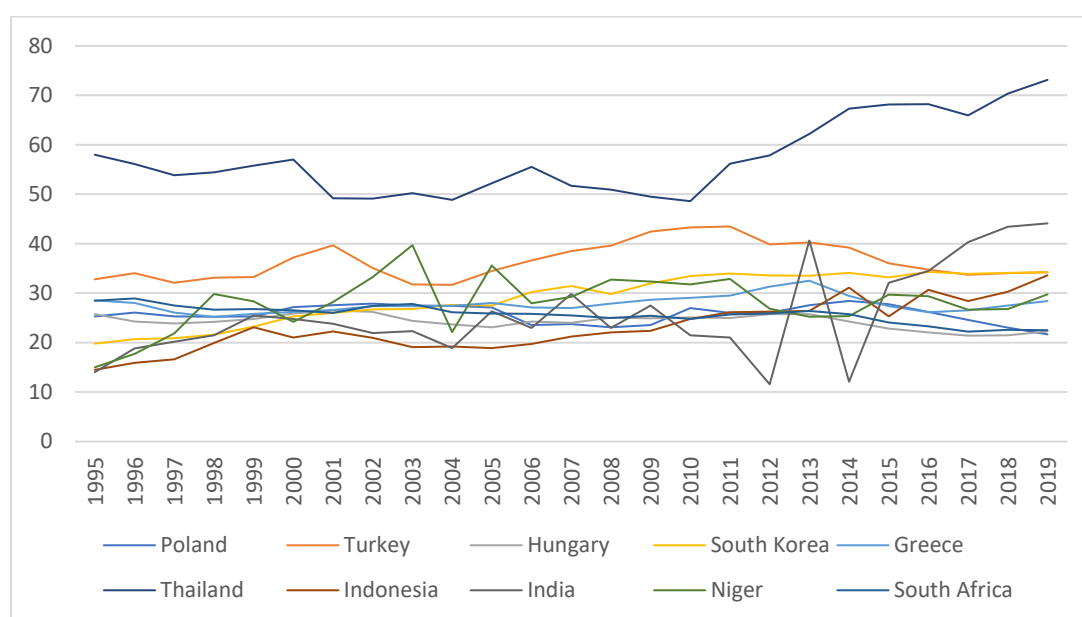

Figure 5. indicates the predicted absolute size of the informal sector by country from 1995 to 2019 calculated by Schneider, Buehn and Montenegro's benchmarking technique. The graph show that Thailand has the highest percentage of the informal sector of all case study countries. Despite the very high number, the absolute size of the informal sector of Thailand does relatively match the survey data of informal employment collected by Thai National Statistical Office for the year 2011 to 2013[21]. Turkey ranks the second highest share of the informal sector while the other countries retain the share of the informal sector at around 20 to 30 percent of the GDP. Unexpectedly, the informal sector share in India is rather mediocre despite the sharp increase in 2013 and from 2015. In general, this data demonstrates that the influence of participating an international organization such as OECD is not as strong as its theoretical apprehension. Figure 6. confirms this regard, although the average shares of OECD and non-OECD countries seem to depart each other from 2014 onwards.

---

[21] The share of informal employment in Thailand is estimated to be 62.53, 62.66 and 64.28 for the year 2011 to 2013 respectively.

*Figure 6. Average absolute size of the informal Sector for OECD
and non-OECD countries (% of GDP)*
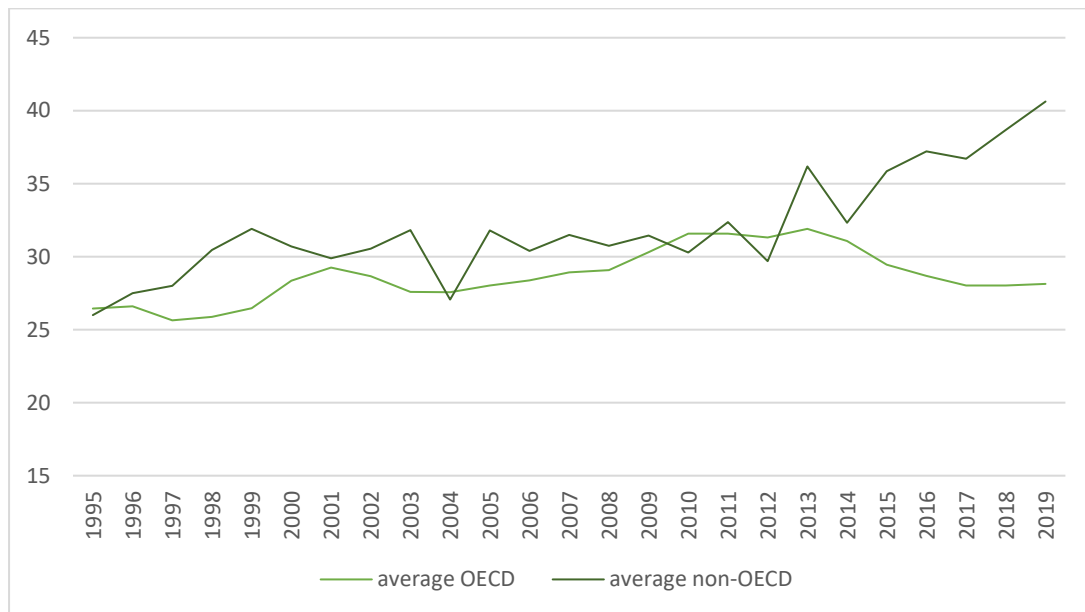
8.2   Historical Analysis: Income Inequality and the Size of the Informal Sector

This part analyses the trends of income inequality (in term of top 1 percent share income) and the absolute size of the informal sector by country to explore how they are associated in each country of the case studies. The assumption of this part is that the informal sector is likely to absorbs unskilled labour surplus from the industrial sector. On this assumption, two hypotheses predicting the patterns of the correlation are presented.

On the one hand, the informal sector might absorb unskilled labours and act as a safety net for industrial sector to develop until these labours are fully absorbed to the formal sector. At this point, according to Lewis model, wages and welfares for labours are increased, thus reducing income inequality. In this case, the inverse relationship between income inequality and the size of the informal sector should be envisioned in the period before the labour is fully absorbed into the formal sector. To be specific, the informal sector should decrease as labours emigrate, while income inequality increases as capitalists exploit the over-supply on labour. However, income inequality decreases after labour from the informal sector is fully absorbed as demand for labour is created and better welfare is offered.

On the other hand, Hart (1973) proposed that the informal sector might only absorb labour in. Therefore, there is only weak and not enough labour demand from labours for better welfare

and increasing wages. If this is the case, the size of the informal sector should grow in parallel with income inequality.

The general trends of the correlation between the size of the informal sector and the top 1% income share in each country are expected to comply with one of the two arguments. In addition, some anomalies in the correlation will be subjected to a historical analysis. i.e. testing whether there are crisis or peculiar events occurring during the time. Hence, this part of analysis will also take consider political regimes.

I.   OECD Countries

- Greece

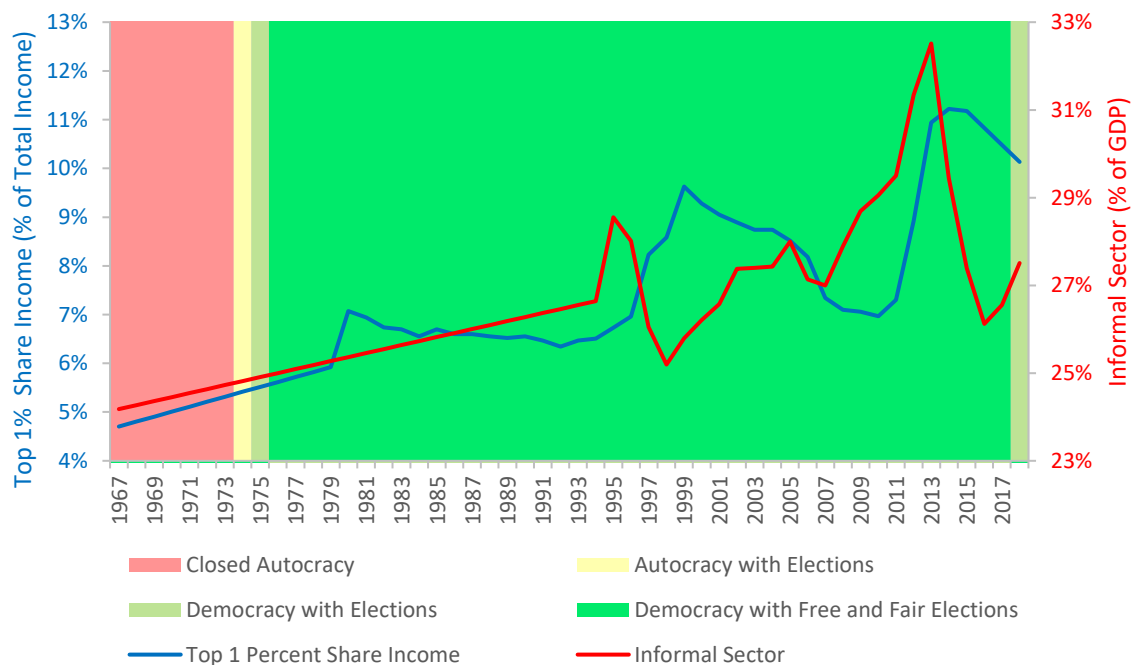*Figure 7. Income inequality and the informal sector in Greece between 1967 and 2018*

Figure 7. shows the size of the informal sector and top 1 percent income share being parallel in general. However, there are two main period which the informal sector and income inequality are inversely correlated. The first period is around 1997 to 2004 when the top 1 percent income share rises until at peak in 1999 and decline. Contrastingly, the informal sector declines until at bottom in 1998 and increase. In this period, Greek was under Prime Minister Contas Simitis governing Panhellenistic Socialist Movement (PASOK). Simitis had attitudes toward managing the Imia issue[22] by international power intervention at the early year of his term.

---

[22] A dispute between Greece and Turkey over the possession of Imia or Kardak islets in the Aegean Sea.,

Having the EU on its side with additional support from the United States, Greece managed to alleviate military tension with Turkey on the islets. Despite its inability to join Eurozone criteria in 1998, Greece adopted Euro currency in 2001. The attempt and being in the Eurozone might drive Greece towards better economy and expand labour market. This might lower income inequality during the time. However, Simitis' policy of 'modernization' by huge spending on public investment and infrastructure could increase the size of the informal sector according to the MIMIC output in table 9.

The second period is between 2007 to 2011. It seems like after Greece entering the Eurozone, the top 1 percent share income was decreasing until 2010 when the Greek government-debt crisis began. However, the size of the informal sector in Greece had soared since 2007, the time of the global financial crisis, and got intensified during its public debt crisis. The combination of sudden austerity measures and the crisis since 2010 might explain the ascending income inequality and the size of the informal sector. The measures include, for example, reducing salaries of public workers, reducing pension payments and increasing tax rates. These measures, enforced in the time of crisis when Greece's economy immediately was shrunk, could deviate people to the informal sector to fulfil benefits from welfares they had lost from the austerity measures. On top of that, the economic stagnation could also decrease the GDP, which increased the proportion of the informal sector as a consequence. Nonetheless, the proportion fell sharply when Greek banks were recapitalized to build financial liquidity in 2013.

- Hungary

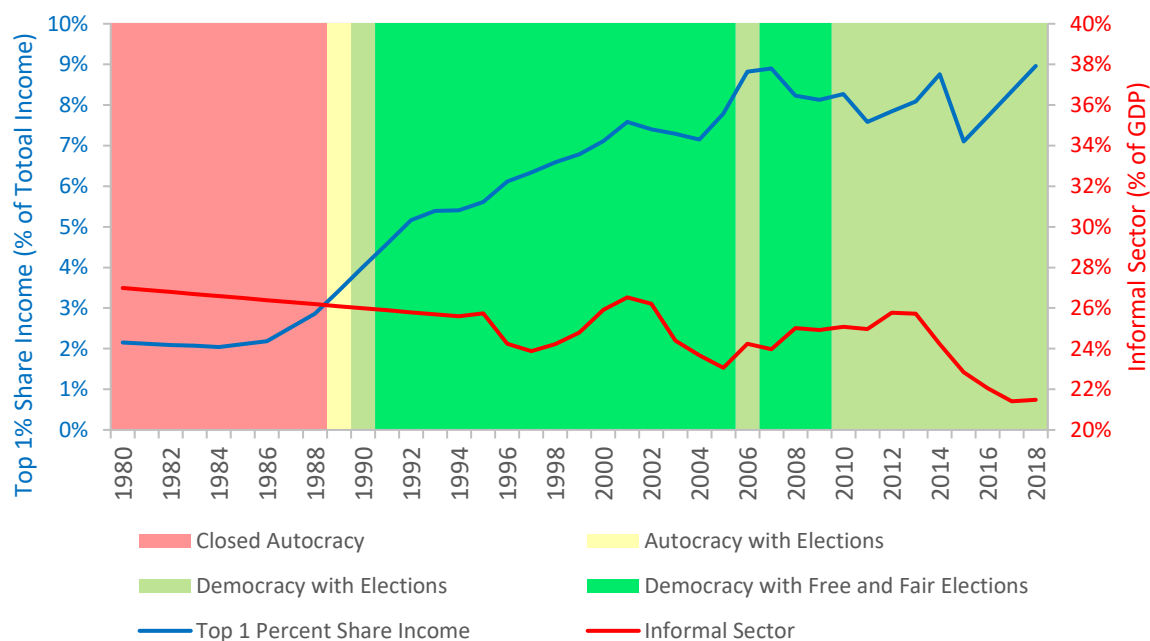*Figure 8. Income inequality and the informal sector in Hungary between 1980 and 2018*

Figure 8. illustrates the trends of the informal sector's size and the top 1 percent income share in Hungary which correlate inversely. During 1980 to 2018, the size of the informal sector decreases from 27 percent to around 21 percent, while the share of top 1 percent income grows from 2 to 8 percent. Nonetheless, there are two period which the size of the informal sector increases. The first period is between 1997 to 2001. This period is around the first term of Viktor Orbán as the Prime Minister. During this period, Orbán supported many social insurance project and reduced tax rates. In politics, he transformed the administrative system towards centralization pf power. Together, supporting public services and less transparency within the executive organs consequently results in higher share of the informal sector according to the MIMIC output.

The share of the informal sector increases again between 2005 to 2012 around the time Ferenc Gyurcsány was elected as the Prime Minister. Gyurcsány applied austerity measures to curb the high governmental debt at the time; for example, increasing tax rates, introduction of university fees, and privatization of health care system (although the latter was unsuccessful). The austerity measures might force labour entering the informal sector, as indicated by

increasing unemployment rates[23] at the time. However, contrasting to austerity measures applied in Greece, the income inequality in Hungary slightly decreases during 2007 to 2011. Unlike Greece, Gyurcsány pushed structural reformation in line with the austerity measures by strengthen the roles of private sector and decentralizing power.

- Poland

Figure 9. Income inequality and the informal sector in Poland between 1983 and 2017
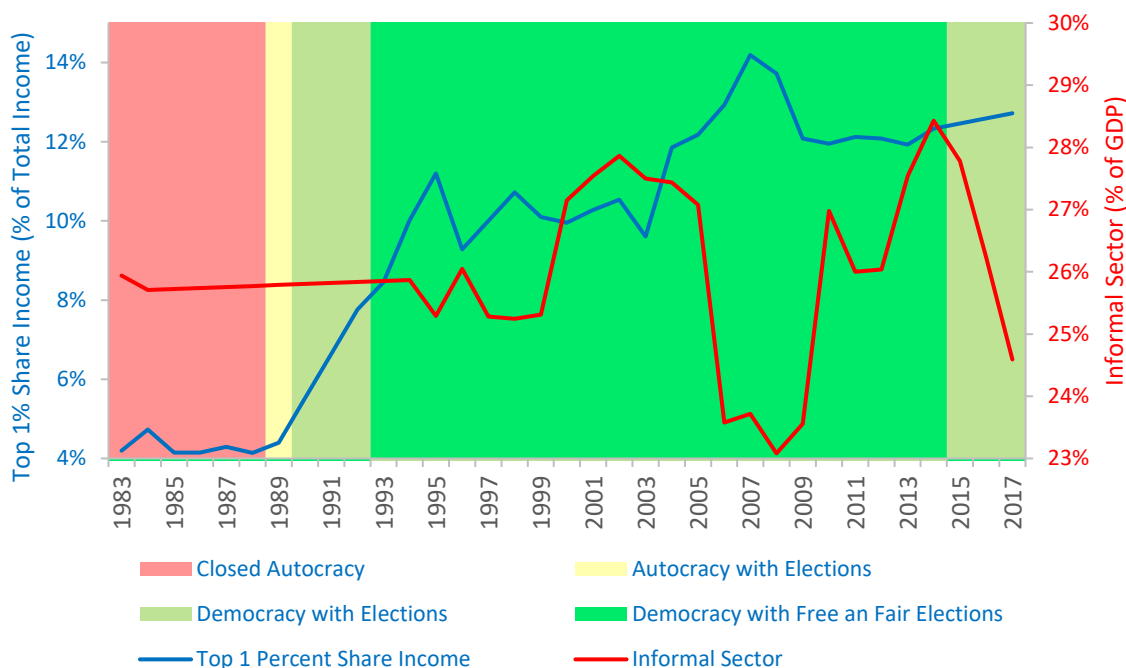

Figure 9. demonstrates the trend of the informal sector and income inequality, in term of top 1 percent income share, of Poland during 1983 to 2017. At first glance, income inequality increases gradually, while the size of the informal sector is very fluctuated. Particularly, income inequality in Poland rocketed from around 4 percent in 1989 to 11 percent in 1995 and from around 9 percent in 2003 to 14 percent in 2007. The first rise of income inequality, 1989 to 1995, was not unexpected. The economy of Poland prior to 1989 was calamitous under Marxian-style economy and martial-law in 1981 to 1983. The model of state-run enterprises and rationing of foods and goods resulted in boast of income inequality once Poland is transferred to market economy. Balcerowicz Plan, implemented in late 1989, attempted to privatize state-owned companies and introduced free-market to Poland. As foods has been

---

[23] According to World Bank database, unemployment rates of Hungary increases from 5.6 percent in 2002 to 11 percent in 2013. Gyurcsány was appointed as the head of strategic advisor for Prime Minister Péter Medgyessy in 2002, then became the Prime Minister in 2004.

limited by rationing before the plan was adopted, free market allowed food price to increase sharply. Moreover, privatizing induced a lay-off in the governmental sector which could highlight unequal purchasing power during the period. Consequently, income inequality increases strongly during the transition period and continues until 1995.

The increase of income inequality and sharp decrease of the informal sector during 2004 to 2007 might be due to Poland's accession to the European Union. To this point, there are extensive studies suggested that the process of EU accession is positively correlated with higher income inequality, especially in Central and Eastern European countries.[24]

- South Korea

Figure 10. Income inequality and the informal sector in South Korea between 1975 and 2017
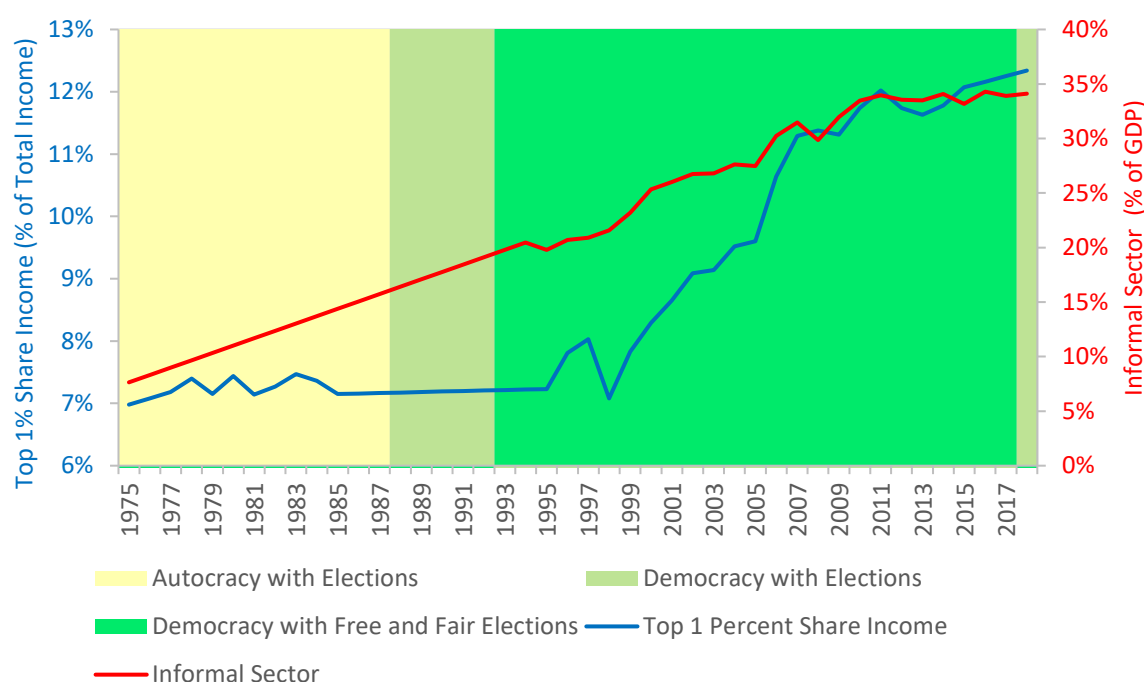
As shown in figure 10., the trends of the size of the informal sector and the top 1 percent income share of South Korea during 1975 to 2017 are positively correlated. However, the size of the informal sector seems to increase gradually while the top 1 percent income share soar between 1998 to 2012 in particular. One economic explanation for the phenomenon is the financial crisis happening in Korea in the second half of the 90s. According to Kihwan (2006), the crisis happened as a consequence of three triggered factors. The first triggered is the appreciation of the US dollar since mid-1995. The stronger US dollars devaluated many Asian currencies

---

[24] See Renimi and Traitaru 2003, Ezcurra and Rapún 2007, and Artelaris et al. 2010

including Korean Won and even with stronger magnitude on Japanese Yen. The situation diminished Korea's export competitiveness against the Japanese's. The second trigger is the bankruptcies of many chaebols in 1997 due to substandard loans. The third trigger is the Asian financial crisis. The crisis harming Hong Kong's economy damage Korean's economy as Japanese financial institution in Hong Kong does not permit loans to Korean Banks anymore. The three factors altogether with low foreign exchange reserves in the central bank lead to Korean Financial Crisis in late 1997.

Despite the very effective measures of the Korean government dealing with the crisis, figure 9 shows that the measures might have increased the top 1 percent share income. On the one side, this consequence is not unexpected since the economic measures focuses mostly on helping firms by resurrecting banking and financial sector e.g. providing public funds, promoting foreign investment and liberalization of capital accounts. On the other side, some measures such as strengthening prudential regulations could reduce financial moral hazard of firms and drift capitals into the informal sector.

- Turkey

Figure 11. Income inequality and the informal sector in Turkey between 1990 and 2018
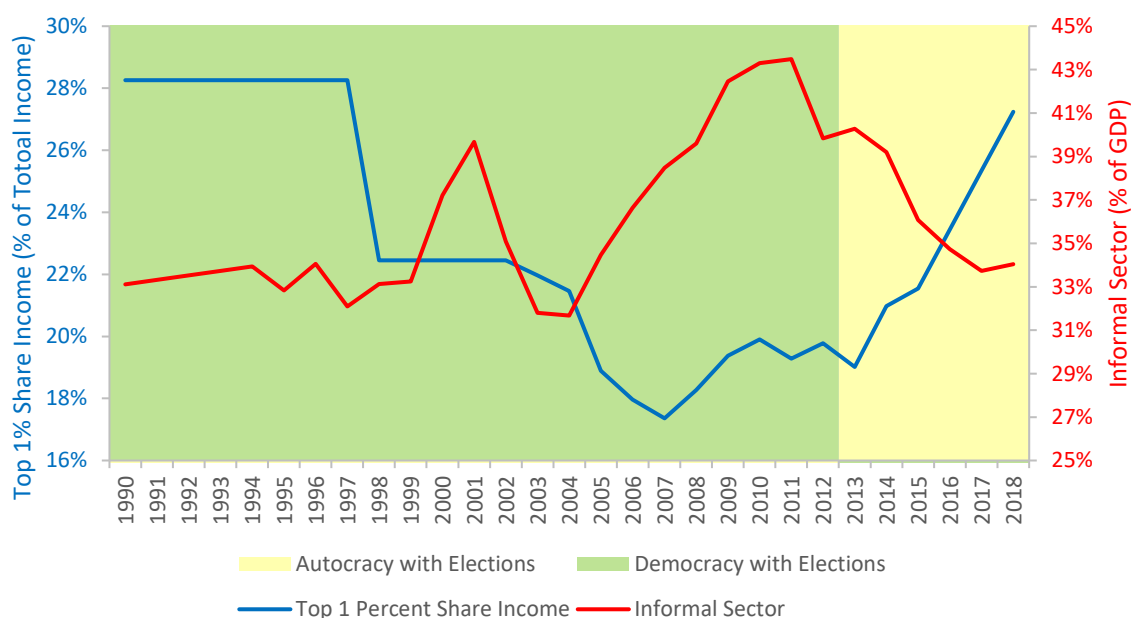

Figure 11. illustrates a weak inverse relationship between the size of the informal sector and the top 1 percent share income in Turkey during 1990 to 2018. In general, the top 1 percent share income of Turkey has been decreasing since 1997 until reaching the bottom in 2007 and resumed until 2018. The importance of the year 1997 for Turkey is not only the end of Political

Islam in Turkey by the so-called 'post-modern coup', but also the beginning of a new monetary policy. This new policy focused on dealing with the stabilization of financial sector rather than the reduction of persisted high inflation Turkey has experienced since 1991 after the Gulf War (Berument and Dincer 2008, pp. 86-88). "After the widespread monetisation of budget deficit was interrupted in 1997, the banking sector became the main instrument of government financing, funnelling short-term borrowing from depositors and investors into government debt" (Macovei 2009, pp. 5). This leads to a fragile banking sector and an attempt to stabilize the economy by supports from the IMF in late 1999. However, lacks of fiscal regulatory and structural reforms brought about financial crisis until 2001. The crisis might explain the short-term increase of the informal sector during 1999 to 2001 and its rebound in 2002 to 2003 as the crisis was quickly recovered by explicit structural reforms and floating Turkish Lira exchange rates.

Turkey enjoyed the disinflation from 2002 to mid-2006. In this period, Turkey, led by Prime Minister Erdogan, employed liberal economic policies by attracting foreign investments and providing low the interest rates to boost the economy. As a result, real GDP grows on average at 6.8 percent annually (Macovei 2009, pp. 10). Moreover, Prime Minister Erdogan launched many reformations through public projects as the economy grows; for example, Labour Act 2003, Health Transformation Program, undersea railway tunnel and the extension of the compulsory education from 8 to 12 years. These projects might be the reason of the increased size of the informal sector and the decreased top 1 percent income share around the year 2002 to 2006. To be specific, the escalated foreign direct investment (FDI) during the time could create jobs, improve human capitals, provide funds for further domestic investments, and, therefore, gives chances for those middle and low- income earners to increase their wages against the top 1 percent income earners.

The year 2007 was a tough year for Turkey as the global financial crisis decelerates its economic growth. The crisis clearly pulled foreign investment out of Turkey from 22.047 billion USD in 2007 to 19.851 and 8.585 billion USD in 2008 and 2009 respectively[25]. The decrease of FDI shrank private consumption and economic output which, consequently, further slowing down the economic growth. Moreover, Turkey faced political deadlock from the Presidential election in 2007 due to the candidacy of Abdullah Gül, who has a history of

---

[25] Data from World Bank Database

contributing political Islam in Turkey. Hence, the combination of the economic and political crisis in Turkey might be the reason the top 1 income share was upheld from 2007 onwards.

The size of the informal sector in Turkey decreases again in 2011. In this year, Turkey faced a high influx of refugees from Syrian civil war. Intuitively, such situation should rather increase the size of the informal sector. However, the informal sector in Turkey decreases from 2011 onwards. Additional to the refugee crisis, Turkey confronted political difficulties in the year as referendum on changing judicial executive legislation was contending. On the one hand, the change prevented military influence in the politics through legal process. On the other hand, some political analyst argue that the change would strengthen the political position of Erdogan and, thus, could lead to civil authoritarian (Hill 2010). Perhaps the centralization of power plays a key role to reducing the size of the informal sector during the refugee crisis.

II.   Non-OECD countries

- India

Figure 12. Income inequality and the informal sector in India between 1972 and 2018
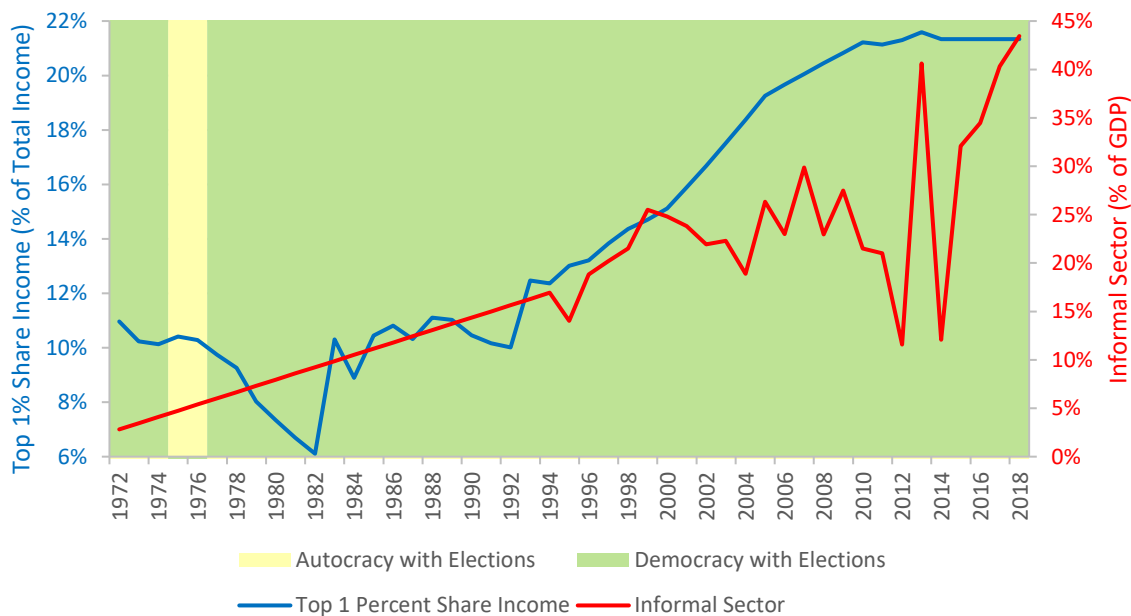
The trend of the size of the informal sector to GDP and of the top 1 percent share income of India during 1972 to 2018 seems to be positively correlated in general. Nevertheless, the size of the informal sector was highly fluctuated from 2011 to 2015. This phenomenon could be the consequence of the 2011 Indian anti-corruption movements. The anti-corruption actions elucidated in 2005 when the Right to Information Act permits citizens to request information from public authorities. The act invoked many political activists since then. The anti-corruption

movements 2011 were against the long-term corruptions in Indian politics mostly happened recent years before the movements took place. The 2011 movements consist of two main protests. The first one claimed for the introduction of Lokpal Bill. The bill should allow establishment of Lokpal which is an institution of ombudsman representing public interests in anti-corruption. The Lokpal bill passed the lower house of Indian Parliament in 2011, but has been delayed for discussion in the upper house in 2012. The delay causes another anti-corruption fasting movements again during the year. However, the bill passed the upper house in 2013 and put into force in early 2014. The second protest was for a repatriation of bribing money from banks overseas. Contrasting to the Lokpal Bill protest, this protest was broken up by a police raid, leaving around 30 people injured (BBC News 2011).

- Indonesia

Figure 13. Income inequality and the informal sector in Indonesia between 1982 and 2018

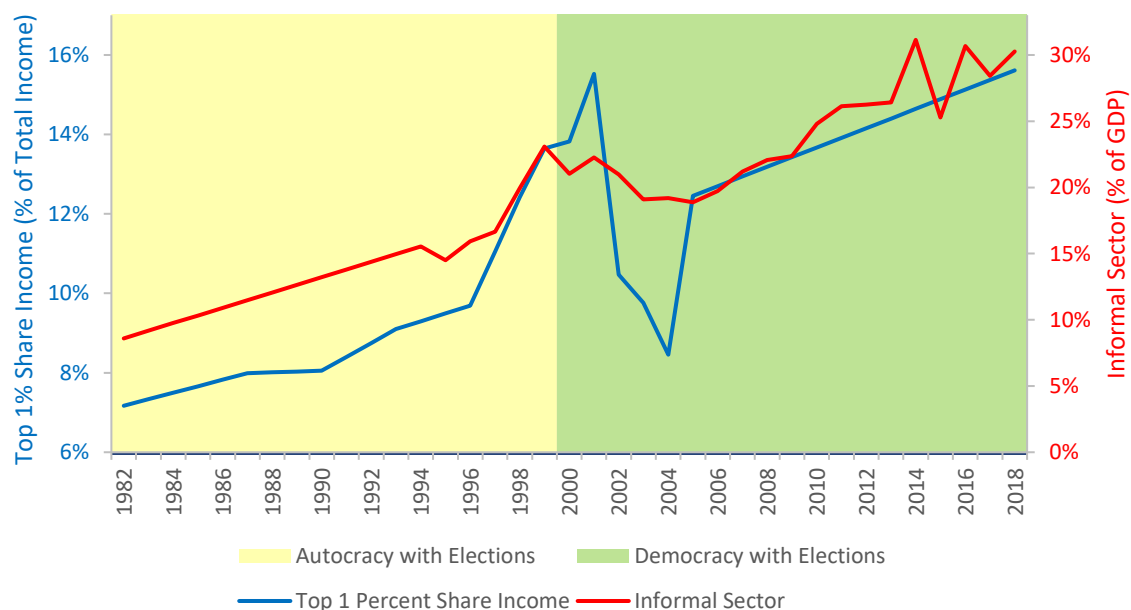The general trend of the size of the informal sector to the top 1 percent share income in Indonesia during 1982 to 2018 is positively correlated. The trends are oscillated between 1996 to 2005 which is around the time of Indonesian Reformasi. The political reformation or the Reformasi started in 1996 when there was a demonstration against Suharto's presidency dictatorship, which is known as the New Order. The demonstration was dissolved by the use of military forces on 27 July 1996; the event is later called 'Black Friday'. During 1996 and 1997, Indonesia also undergone many ethnical disputes, mainly against Chinese Indonesians,

and its economic was affected strongly by the 1997 Asian financial crisis. These incidents led to a student demonstration against Suharto in 1998 and his resignation in the same year.

Bacharuddin Jusuf Habibie, the next president to Suharto, marked the beginning of Reformasi process. He passed the Political Party Law, which increase diversities of political parties in Indonesian politics, and the Regional Autonomy Law, which decentralize the central government's power. Habibie also investigated the corruptions of Suharto, reconciled the ethnical conflicts and stabilize the economy from the 1997 Asian financial crisis. However, his soft attitudes on the Timor-Leste issue, consequently yielding East Timor's independence, made him unpopular for his next election. In December 1999 election, he lost his presidency to Abdurrahman Wahid.

Wahid continued the Reformasi. To contribute to the freedom of expression, he disbanded the Ministry of Information which was the main mechanism for military's censorship. In addition, he dissolved the Ministry of Welfare as it involved heavy corruptions during the Suharto's regimes. Nonetheless, Wahid was also accused of involving in scandals on national budget in 2000. The accusations led to his resignation in 2001, marked the decreases of the size of the informal sector and income inequality in the following years.

From 2001 to 2004, Megawati Sukarnoputri was appointed as the first female president of Indonesia. She continued the Reformasi and promoted democratization, but gradually and carefully avoiding conflicts between administrative branches: legislative, executive and military (Ziegenhain 2008, pp. 146). This attitude discredited her competitiveness in the 2004 election which she was defeated by Suslio Bambang Yudhoyono (SBY). Suharto passed away during the SBY presidency. Also, SBY, a former army general, did not provide any political reformation against Suharto's influence specifically. The Reformasi was considered halted.

- Niger

Figure 14. Income inequality and the informal sector in Niger between 1985 and 2017
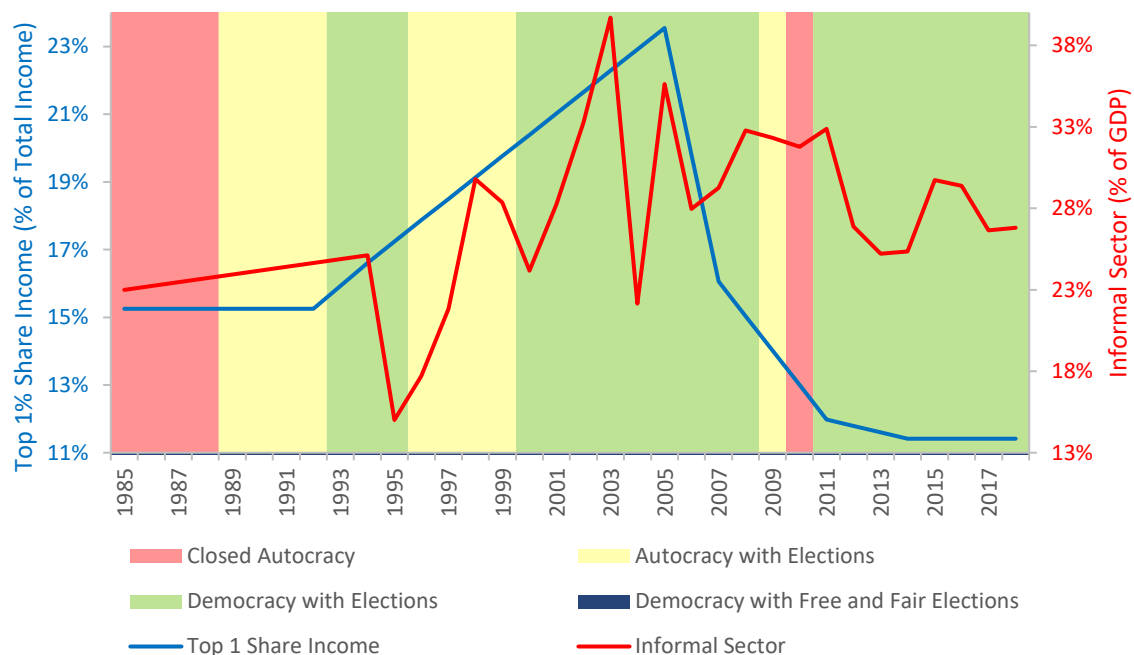
The overall trend of the size of the informal sector and the top 1 percent share income in Niger during 1985 to 2017 are corresponding. While the top 1 percent share income ascended from 1992 to 2006, the size of the informal sector also escalated vacillatingly around the period. The income inequality started increasing in 1992 when drafting process of the constitution began. Moreover, it was also the year the conflict between the government, comprise of mainly Hausa ethnic groups, and Tuareg rebels, who was underrepresented in Niger politics. In the early 1992, the idea of setting a negotiation between Niger government and the representative organization of Tuaregs 'Liberation Front of Air and Azawad' (FLAA) was planted. However, the negotiation did not happen until 1994. The negotiation lead to a peace agreement signed in April decentralizing government power in the Northern region where groups of Tuaregs are based and giving opportunities for rebels to turn into military units or having civilian lives. The agreement might have an effect of reducing the size of the informal sector during 1994.

The size of the informal sector soar in 1995; the year of Niger's parliamentary election. The 1995 election resulted in political gridlock as the conflict between the government and the Prime Minister was unsolved. Consequently, Niger encountered a coup d'état in 1996. The informal sector decreased slightly during 1998 and 1999. This was the period when Tuareg vigilantes were fully disarmed and their former leader was appointed as a special adviser to the

head of state. Nevertheless, the size of the informal sector enlarged again in 2000 before reaching its peak in 2003. The size dropping during 2003 could be the result of a criminalization of slavery.

The size expanded again during and after 2004 as Tuareg rebellions invigorated. On top of that, Nigeriens confronted food crisis in 2005. Although the crisis is arguably a chronic problem in Niger, the 2005 famine drew international attention to Niger's food and livestock distribution system. Through the year, international organizations had undertaken the crisis and supporting Niger's national body coping with the crisis (OCHA 2005). The engagement of these international actors might demote the income of the top 1 percent earners; resulting in a downward-slide in their income share and a less undulated size of the informal sector since 2006.

- South Africa

Figure 15. Income inequality and the informal sector in South Africa between 1985 and 2017
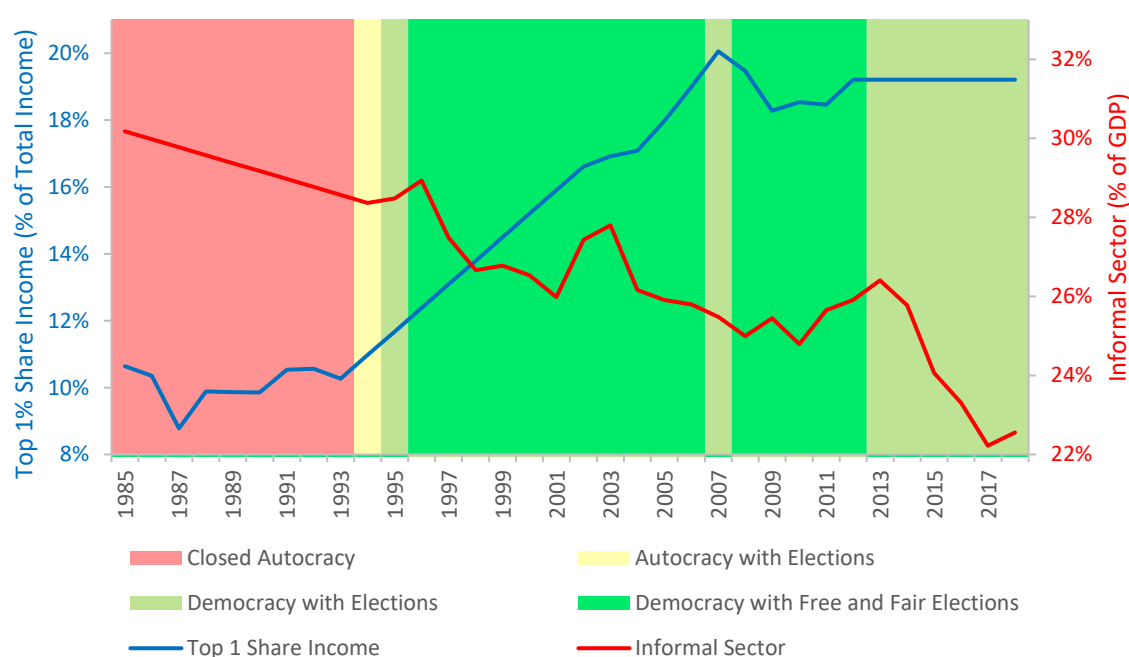
In general terms, the size of the informal sector and the share of top 1 percent income in South Africa are negatively correlated. The size of the informal sector increases shortly but sharply during 2001 to 2002 before it dropped in 2003. During the year of increases, the issue of AIDS drugs was highlighted in South Africa. In 2001, transnational pharmaceutical companies withdraw their lawsuits against South African government on HIV drugs patent. The withdrawal allowed the government to import and manufacture generic HIV drugs which

would reduce HIV drugs price immensely. Consequently, the action would benefit the long-standing problem of AIDS in South Africa as poverty limited access to HIV drugs for most South Africans carrying HIV. The reality of the withdrawal, however, seemed to be contrasting to what it has promised. The HIV drugs price remained too high for those who needed. Additionally, the generic HIV drugs provided by the government to public hospitals were insufficient. The situation could be explained by the complaints and lawsuits from generic drug producers and public interest groups in 2003. The case filed regard the excessive pricing and refusal of giving license to generic HIV drug producer by some transnational pharmaceutical companies. Worse than that, the companies required the producer given license to give royalties of 15 to 30 percent of the net sales of the relevant antiretroviral drugs (Fisher and Rigamonti 2005, pp. 18). These plights did not only keep the drug price unaffordable but could also gave opportunities for the rich to invest in the license-given drug companies. It was not until 2003 that the government tackled the AIDS issue seriously by inductions of HIV/AIDS related programs and drug-distribution centres.

The size of the informal sector enlarged again during 2010 to 2012. The phenomenon is not a surprise considering the intensity and vast number of protests in South Africa occurred during the years. A press release from South African Institute of Race Relations on May 2015 indicates that the number of protests in South Africa was almost doubled since 2010 (Mackay 2015). Nonetheless, the report also suggests the increment has persisted until the period of 2013 to 2014, the year before the press release. The protests involved living quality issues such as lacks of basic needs (for example, shelters and electrical supply), exploitation (especially on mine workers), high unemployment, concerns about governmental lavish spending on FIFA World Cup 2010, and palpable corruptions.

- Thailand

Figure 16. Income inequality and the informal sector in Thailand between 1990 and 2018
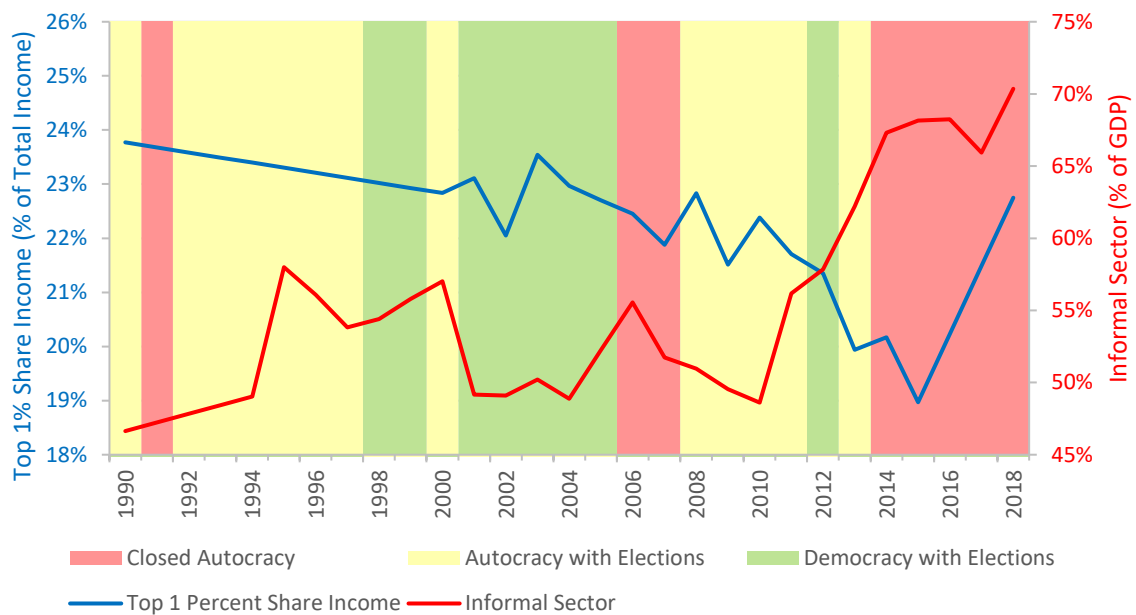
The size of the informal sector of Thailand during 1990 to 2018 is astatic. However, the size skyrocketed from the year 2010 at 48.6 percent to 67.3 percent of GDP in 2014, the period marked by political polarization amongst Thais. The political polarization was intensified in 2010 when the protest against the government, commonly known as 'Red Shirt', rallied from all around Thailand to Bangkok. This protest was allegedly supported from the former prime minister who was criticized of being highly corrupted and exiled by coup d'état in 2006, Mr. Thaksin Shinawatra. The protestors demanded the current prime minister to step down and announce a re-election as they perceived high military influence in the government. They began protesting from blocking the entrance to governmental buildings before gathered at downtown and were suppressed by the military eventually. The raid resulted in more than 90 deaths. However, the prime minister dissolved the parliament as demanded and the new election was held a year later.

The size of the informal sector soared again from 2012; the first year of the new government led by the only woman prime minister of Thailand and a younger-sister of Mr. Thaksin. The government launched many populist policies aimed at helping the poor. Some of these policies are highly criticized for corruptions; for example, rice pledging and giving tablet computers to school pupils. In November 2013, the government launched an amnesty bill which would have resulted in an invalidation of any political guilt over the period of 2004 to late 2013.

Theoretically, this means the bill should set-zero the political polarization as the military would be nonguilt for the 2010 raid as well as many corruptions accused on Mr. Thaksin. Due to the extremity of the amnesty bill, a grand demonstration against the government took place in end-2013 to mid-2014. In 2014, the prime minister announced parliamentary dissolve. However, the demonstrators attempted to prevent the 2014 election by blocking election booths as they foreseen the triumph of the governmental party. Ultimately, coup d'état overthrew Thai democracy from May 2014.

8.3 Democracy Correlation: Regression Analysis

The last section of this part concerns the influence of the informal sector on the relationship between income inequality (in terms of the top 1% share income) and democratization. To explore this influence, 6 equations will be executed by regression analysis. In the first subsection, the outcome of logistic regression analyses on democratization will be discussed. In the second subsection, linear regression analyses on democratic sustention will show whether the informal sector affect the elongation of democracy and the relationship between income inequality and democratic sustention.

I.   Democratization

In this section, three following equations are calculated by logistic regression analysis using panel data.

<u>(1)</u>: $\text{democratization}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it}$

<u>(2)</u>: $\text{democratization}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} + \beta_4 \text{informal sector}_{it}$

<u>(3)</u>: $\text{democratization}_{it} = \alpha + \beta_1 \text{ income inequality}_{it} + + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} + \beta_4 \text{informal sector}_{it} + \beta_5 \text{income inequality}_{it} * \text{informal sector}_{it}$

The result of the regression above are presented in Table 9.

*Table 9. Regression output: democratization (odd ratio)*

Variables	Equation (1)	Equation (2)	Equation (3)
Constant	7.716 (-2.503) **	7.544 (-2.471) **	24.646 (-1.430)
Top 1% share income (a)	1.542 (0.090)	4.362 (0.211)	10725.72 (0.615)
OECD country	4.457 (-1.851) *	4.49 (-1.865) *	4.658 (-1.909) *
Post-Soviet country	33.751 (2.701) ***	36.788 (2.608) ***	33.945 (2.553) **
Size of the informal sector (b)	-	1.006 (-0.203)	1.044 (0.487)
Interaction between (a) and (b)	-	-	1.320 (-0.583)
Goodness-of-fit statistics			
Log-likelihood	-39.152	-39.131	-38.958
LOOCV balanced accuracy	0.535	0.535	0.538
No Information Rate	0.9103	0.9103	0.9103
P-value [Acc. > NIR]	0.573	0.573	0.458
Observations	145	145	145

Notes: t-values in parentheses. ***, **, * indicate statistical significance at the 99%, 95%, and 90% level, respectively.

In line with many democratic theorists such as Acemoglu and Robinson (2006) and, Ansell and Samuels (2010), the regression output shows that income inequality is positively correlated with the probability of democratization. This correlation is stronger in the model (2) which the effect of the size of the informal sector is included. Additionally, the correlation is the strongest in the full model (3) which the effect of the size of the informal sector and its interaction with the top 1% earners income share are extracted. To be precise, for every 1 percent increase in the top 1% earners share in income, a country is 10,725.72 times more likely to democratize.

Similarly, the size of the informal sector also correlated positively with the probability of democratization, despite its lesser potency. For every 1 percent increase in the share of the informal sector in GDP, a country is 1.044 times more likely to democratize. Moreover, including the size of the informal sector to the initial regression increases the effect of the top 1% share income on democratization probability by around 2.8 times (from 1.542 to 4.362). This result demonstrates that there is an influence of the informal sector on the relationship between the top 1% earners income share and the probability of democratization. The direction of this influence could be illustrated as the red dash line in figure 17.

Figure 17. Direction of the influence of the informal sector by comparing regression model (1) and (2)
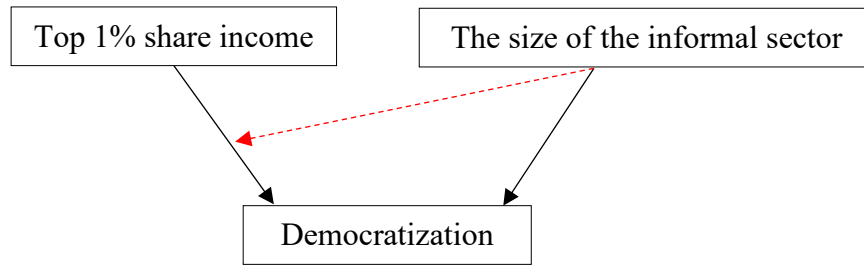
In contrast, the interaction term between the size of the informal sector and the top 1% share income is negatively correlated with democratization probability. In other words, the more the rich invest in the informal sector, the less likely the country to democratize. This result is particularly interesting. By adding the interaction term to the second regression, the effect of the top 1% share income increases by 2,458 times (from 4.362 to 10,725.72) while the effect of the size of the informal sector on democratization probability increases by only 1.038 times (1.006 to 1.044). This anomaly signifies the intense influence of the top 1% earners involving in the informal sector on its relationship with democratization probability. The influence could be represented by the bold red dash line in figure 18.

Figure 18. Direction of the influence of the interaction term by comparing regression model (2) and (3)
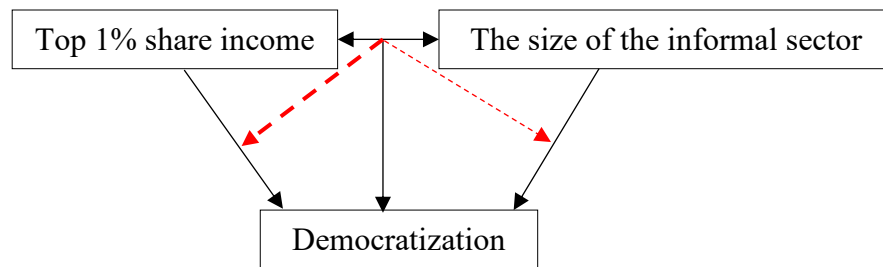
Despite the interesting output, it is important to notice that the odd ratios of the top 1% share income, the size of the informal sector and the interaction terms are statistically non-significant. In fact, all the regression models are considered rather poor-fitted as shown by negative log-likelihoods. The full model (equation 3) has slightly higher log-likelihood value and higher leave-one-out cross validation (LOOCV) accuracy than the other two models. Thus, the full model seems to be the best fitted with the data amongst the three models. Nonetheless, the poor p-values of all models repudiate statistical significances of the LOOCV accuracy. These poor-fitted indicators might be due to the unbalanced data; since democratization is a rare event, the

case of democratization is much lower than the case of non-democratization in the data set. For further research, more case studies should be included in order to avoid such problem.

II. Democratic Sustention

This part aims at exploring the influences of the top 1% share income and the size of the informal sector on the 10-year-length of democratic period after a country democratize. In other words, how income inequality and the informal sector associate with the sustainability of democracy. To answer the question, three regressions executed are presented as follows:

<u>(4)</u>: $democratic\ sustention_{it} = \alpha + \beta_1\ income\ inequality_{it} + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} + \beta_4 Country\ Specific\ Characteristic_{it}$

<u>(5)</u>: $democratic\ sustention_{it} = \alpha + \beta_1\ income\ inequality_{it} + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} + \beta_4 Country\ Specific\ Characteristic_{it} + \beta_5 informal\ sector_{it}$

<u>(6)</u>: $democratic\ sustention_{it} = \alpha + \beta_1\ income\ inequality_{it} + \beta_2 OECD_{it} + \beta_3 Post\ Soviet_{it} + \beta_4 Country\ Specific\ Characteristic_{it} + \beta_5 informal\ sector_{it} + \beta_6 income\ inequality_{it} * informal\ sector_{it}$

Table 10. presents the result from regression (4), (5) and (6).

Table 10. Regression output: democratic sustention (coefficient)

Variables	Equation (4)	Equation (5)	Equation (6)
Constant	-2.889 (-0.989)	-13.216 (-2.261) **	-31.3.5 (-4.322) ***
Top 1% share income (a)	18.775 (1.54)	14.658 (1.204)	159.059 (4.032) ***
OECD country	6.706 (2.873) ***	11.821 (3.422) ***	6.000 (1.675) *
Post-Soviet country	-4.993 (-3.061) ***	-5.201 (-3.231) ***	-5.243 (-3.47) ***
Size of the informal sector (b)	-	0.216 (2.037) **	1.133 (4.363) ***
Interaction between (a) and (b)	-	-	-5.283 (-3.824) ***
OECD Country			
Greece	baseline	baseline	baseline
Hungary	1.013 (0.800)	1.053 (0.845)	1.163 (0.993)
Poland	0.390 (0.294)	0.453 (0.347)	-0.021 (-0.017)
South Korea	-0.192 (-0.155)	1.163 (0.837)	4.286 (2.786) ***
Turkey	-3.002 (-1.033)	-3.837 (-1.327)	-1.754 (-0.634)
Non-OECD Country			
India	6.217 (2.888) ***	14.919 (3.128) ***	16.097 (3.587) ***
Indonesia	5.560 (3.024) ***	11.856 (3.310) ***	6.633 (1.827) *
Niger	3.188 (2.210) **	8.133 (2.891) ***	1.349 (0.424)
South Africa	5.070 (3.100) ***	10.168 (3.415) ***	3.150 (0.942)

Thailand	omitted	omitted	omitted
Goodness-of-fit statistics			
R-square	0.2358	0.2659	0.3596
Adjusted R-square	0.1534	0.1787	0.2763
P-value	0.0026	0.0010	1.0061e-05
Observations	114	114	114

Notes: t-values in parentheses. ***, **, * indicate statistical significance at the 99%, 95%, and 90% level, respectively.

Table 10. indicates regression output on democratic sustention. Regression output from equation (4) shows that the top 1% share income and OECD countries are positively correlated with democratic sustention. Despite its strong and positive correlation, the top 1% share income exposes an insignificant correlation. On the contrary, being an OECD member significantly increases the likelihood of democratic sustention by 6.7 years or around 6 years and 8 months. However, being a post-Soviet country decreases the likelihood by around 5 years.

Adding the size of the informal sector to equation (4), equation (5) exposes the effect of the informal sector by accentuating the correlation between democratic sustention, on the one side, and being an OECD member and post- soviet country, on the other side. Being a member of OECD organization increases the likelihood for democracy to remain for around 12 years, while being a post-Soviet country decrease the likelihood for around 5 years. Moreover, every percentage increase of the informal sector in the share of GDP, the likelihood for democratic sustention grows for 0.216 year (or around 2 month). It is important to underline that including the size of the informal sector in the equation slightly decrease the magnitude of the top 1% income share on democratic sustention from 18.775 to 14.658. Nonetheless, the effect remains statistically insignificant.

Interestingly, extracting the interaction effect between the size of the informal sector and the top 1% share income emphasize the effect of their correlations to democratic sustention. The effect of the top 1% share income increases by 10.85 times from 14.685 in equation (5) to 159.059 in equation (6), while the effect of the size of the informal sector increases by 5.25 times from 0.216 to 1.133. More than that, these increased effects are of 99% significant level. The increased numbers imply that every percent increase of the 1% richest income shares is associated with increased democratic sustention for 159 years, holding other predictor variables at constant. Additionally, every percent increase of the informal sector in percentage of GDP is correlated with 1.133 year (or around 1 year and 1 month) increase of democratic sustention.

The interaction term between the size of the informal sector and the top 1% share income shows a negative correlation with democratic sustention. In every unit increase of the interaction, democratic sustention is decreased by 5.283 years (or around 5 years and 3 months). To this point, the conclusion of democratic sustention is similar to the one on democratization event. Once democratization took place, democracy is less likely to sustain when the 1 percent richest invest in the informal sector. Notably, this conclusion seems to be valid not only in some OECD countries, but also in some Non-OECD countries in Africa. To be specific, this conclusion or model (6) seems to exclude only Asian countries in the sample. The exclusion might explain the small R-Squared and adjusted R-Squared values of model (6), although the values are statistically significant.

8.4 Conclusion

The MIMIC model estimation of the size of the informal sector shows the contrary implication to Kuznets' theory on the origin of the informal sector. The result exposes that it is rather not the urbanization, nor the manufacturing sector, but the agricultural sector which contribute to the size of the informal sector. This part of the result implies that labour might migrate from the informal agricultural sector to the manufacturing sector. Additionally, secondary school enrolment also slightly bolsters a larger size of the informal sector. This refuses the Kuznets assumption that the informal sector is then decreased as the next generation of the labour get educated. Nonetheless, the estimation indicates that better welfare for labours lead to smaller size of the informal sector. This part of the result draw spotlight on the Lewis model. According to the Lewis model, the informal sector absorbs surplus labours until demands for labour in the formal sector is higher than labour supply. At this point, labours are offered better welfares.

However, the decisive factors of the size of the informal sector appears not to be the labour market but the inefficiencies of the governmental sector. The MIMIC model estimation indicates that people's trust in the government of juristic institutions, such as the police, contributes to the size of the informal sector. Particularly, the sector increases corresponding to public projects and decreases according to stronger corruption control. This result resembles Aristotle's pessimistic perception of democracy; people could be convinced by politicians and their populist policies that they unconsciously ignore corruption. The hard fact is that these causal variables of government efficiencies have higher impact on the size of the informal sector than those concerning labour market.

Although the absolute sizes of the informal sector in OECD and non-OECD countries are similar in average, the sizes deviate from each other since 2012. From 2012 to 2019, the average size of the informal sector of OECD countries had been decreasing, while the average size of the sector of non-OECD countries had been increasing. Additionally, regression analyses expose that being an OECD member state and post-Soviet country positively correlate with the likelihood of democratization. However, while being an OECD member state contributes to democratic sustention, being a post-Soviet country decreases the prolongation of democracy. In line with theorists such as Bate and Lien (1985), and Boix and Strokes (2003), this result reveals the significance of international factors on democratization and democratic sustention.

Despite its ambiguity, trends of the informal sector and the top 1% share income illustrate two main patterns according to hypotheses. The top 1% share income and the size of the informal sector increases in parallel in Greece, South Korea, India and Indonesia. Regarding Hart's argument (1973), the correlation implies the lock-in function of the informal sector. In his argument, the informal sector provides an opportunity to increase disposable income for exploited labour in the formal sector. This situation decreases labours' ambition for welfare and hinder labours to abandon the informal sector consequently.

On the contrary, the trends in Hungary, South Africa and Thailand expose inverse relationships. In Hungary and South Africa, the trend of the top 1% share income increases, while the size of the informal sector decreases. Assumed by the Lewis model, these relationships indicate the formal sector absorbing labour from the informal sector. However, the relationship reverses in Thailand: the top 1% share income decreases while the size of the informal sector increases. In this case, further research of explanation is necessary.

The trends in Poland, Turkey and Niger also expose unclear patterns. The top 1% income share and the size of the informal sector in Poland and Turkey do not seems to have a relationship until 2003 when the trends show an inverted correlation. On another note, the trends in Niger are congruent until 2006, then they seem to develop independently from each other.

Historical analysis shows that accession to the European Union might not always benefit the economy on decreasing income inequality, particularly in Eastern European countries. In this research, this is the case for Hungary and Poland after EU accession in 2004. On the contrary, income inequality as measured by the top 1% income share in Greece does reduce after the accession in 1981.

Governmental reactions to financial crisis significantly affect the size of the informal sector. During the crisis, the size of the informal sector increases. However, the increase seems less extreme when a country employs structural reformations than when austerity measures are enforced. This is the case for Greece during 2009 to 2013. Additionally, the size of the informal sector increases more gradually during a crisis in Hungary (2005 -2012) and South Korea (Korean Financial Crisis 1997) where both austerity measures and structural reformation were imposed at the same time. In Turkey Crisis 2001, the size of the informal sector rebounded to the rate before the crisis when explicit structural reformation measures applied.

Regression analyses demonstrate that the size of the informal sector is positively correlated with the likelihood of democratization and the prolongation of democracy afterwards. Nonetheless, its impact is comparatively much smaller than the top 1% income share and the interaction terms (between the top 1% income share and the size of the informal sector). The negative correlation of the interaction term in the regression implies that the more top 1% richest earners invest in the informal sector, the less chance of democratization and democratic sustention. Altogether, the regression results point out that the chance of democracy to flourish in a country depends largely on the elite class (top 1% highest earners).

To answer the main research question, regression analyses shows that the size of the informal sector does affect the magnitude of income inequality (top 1% income share) on democratization tendency and democratic sustention. In fact, the impact of the top 1% income share on democratization likelihood is more pronounced when the size of the informal sector is jointly examined. The impact pronounced even more when the interaction terms is included in the regression analysis. For democratic sustention, the interaction term also accentuates the effect of the top 1% income share. However, and interestingly, the term de-emphasizes the influence of being an OECD member states on democratic sustention. To this point, further research on democratization and economic inequality should take the effect of the informal sector into consideration. More importantly, its complex characteristics should be taken heed.

9. Conclusions and Discussions

Has democracy truly reflected the voice of every person in the society like its ancient Greek term 'demokratia', inequality would be obsolete. However, the history demonstrates that democracy has always carry some kinds of inequality even in Athens, where the term is originated. Athenian democracy excluded women, slaves and foreigners from its demokratia. In addition, democracy in other Greek cities, like Sparta, and ancient Rome resembled aristocracy rather than democracy in normative terms. The modern representative democracy, as a consequence of American and French revolution, also deviate even further from its original essence. After the triumph of the United States in World War II, liberal democracy seems to enhance inequality quantitatively by contributing free market to democratic values in countries around the world. Since then, studies on economic development, income inequality and democracy have been conducted extensively.

This research is inspired by studies on income inequality and democratization. Although the conclusion of the relationship between income inequality and democratization is contending, most studies assume taxation playing a key role in income distribution. Such assumption could yield a bias result because taxation is usually more effective on countries where democracy is already consolidated. This assumption might be the reason why many of the studies fail to explain democratization in developing countries. In this regard, this research focus on the impact of the economy excluded from taxation i.e. the informal sector. It is crucial to note that this is an exploratory research. The main purpose of this research is to draw attention on the significance of the informal sector to the issue rather than to scrutinize its effect on causation. To put it simply, the core idea of this research is that: when the informal sector is spectacular especially in democratically-unconsolidated developing countries, researches on the relationship between income inequality and democratization should not ignore its impact. Whether the size of the informal sector has a significant impact on the relationship between income inequality and democratization or not is the research question for this study.

To answer the research question, this research employs multiple quantitative and a qualitative method on data from 10 developing countries. These countries include 5 OECD countries (Greece, Hungary, Poland, South Korea, and Turkey) and 5 non-OECD countries (India, Indonesia, Niger, South Africa, and Thailand). Since quantitative studies on the size of the informal sector is limited to some countries with some specific period, the first part of this research attempts to estimate the size of the informal sector in the 10 countries of case study.

In this part, Multiple-Indicator-Multiple-Causes (MIMIC) model is used to generate a relative size of the informal sector. To calculate its absolute size, benchmarking technique by Schneider, Buehn and Montenegro (2010) is applied. From these methods, the absolute sizes of the informal sector of the 10 countries from 1995 to 2019 are predicted. In the second part, the size of the informal sector is compared with the top1% share income as the measurement of income inequality. The comparison allows prognostication of the introduction of the informal sector in accordance with an inter-sector labour migration. Additionally, historical analysis is applied to the comparison to identify political influences. In the last part, regression analyses on democratization and democratic sustention is executed. The result from the analyses demonstrates the influence of the size of the informal sector on democratization and its survival, as well as their relationship with income inequality.

Having the first two analyses performed, two compelling results are noticed. First, industrialization is not the preeminent contributor to the size of the informal sector but political factors. The inter-sector labour migration between urban industrial sector and agricultural sector is a significant factor. However, both the MIMIC model and historical analysis demonstrate that corruptions in governmental sector is the main cause for the informal sector. The informal sector increases in accordance with governmental spending. Moreover, trust in the government and juristic institutions also enhance the size of the informal sector. This result is reaffirmed by negative correlation between the size of the informal sector and the control of corruption. The case of anti-corruption movement in India during 2011 to 2015 reflect this result. The enforcement of the Lokpal Bill, an institution of ombudsman representing public interests in anti-corruption in India, in early 2014 correlates with a massive decrease of the size of the informal sector. In addition, governmental management of financial crisis in OECD countries also plays a key role in determining the size of the informal sector during the crisis. Austerity measures seems to accentuate the crisis while structural reformations alleviate the tension of the crisis.

Second, impacts of exogenous factors are substantial. There are institutional influences on democratization likelihood and democratic sustention. Although the average size of the informal sector between OECD and non-OECD countries are not notably difference, regression analyses show that being an OECD member state decrease the democratization likelihood but increase the elongation of democracy after democratization. The contrary applied to the post-Soviet factor. A post-Soviet country is more likely to democratize but its democracy survives shorter. Furthermore, international influences have explicit impact on governmental attitudes

in African countries. In Niger, international pressure for better food and livestock distribution system seems to reduce the top 1% share income and stabilizes the size of the informal sector. In South Africa, international attention on HIV drug issues might put pressure on the government to tackle overpriced HIV drug problem seriously.

From the first two analyses, the first hypothesis of this research is partially disproved. The trend of the top 1% share income and the size of the informal sector increases in parallel in Greece, South Korea, India and Indonesia. However, the trend in Hungary, South Africa and Thailand exposes an inverse correlation. Moreover, the trend shows unclear patterns in Poland, Turkey and Niger. Therefore, the first hypothesis that there is a positive correlation between the size of the informal sector and income inequality is partially refuted.

Regression analyses demonstrate that the second and the third hypotheses are supported. Democratization likelihood and the period of democratic sustention are escalated when the income share of the 1% richest earners increases. The size of the informal sector is also positively correlated with the likelihood of democratization and the prolongation of democracy afterwards. Nonetheless, its impact is comparatively much smaller than the top 1% income share and the interaction terms (between the top 1% income share and the size of the informal sector). In short, income inequality seems to still be the momentous factor for democratization and democratic sustention; while the informal sector accentuates this effect. Hence, the second hypothesis (income inequality in positively correlated with democratization likelihood) and the third hypothesis (the size of the informal sector is positively correlated with democratization likelihood) are supported by the data of the ten countries of the case studies.

Despite the positive correlations supported by the data, it is important to emphasize that the causation of the variables is beyond the framework of this research. The result of this research cannot be interpreted that increasing income inequality would bring about democratization or help sustaining democracy once a country is democratized. On the other way round, to discover whether democracy and democratization induce income inequality would need a further advance theoretical framework and stronger evidence in detail. However, the essence of this research is to introduce the aspect of the informal sector to the realm of income inequality and democratization. The outcome of this research that the size of the informal sector does emphasize the influence of income inequality on democratization and democratic sustention is a useful starting point for further research on the influence of the informal sector on income inequality and democracy.

As an exploratory research, there are many possibilities to develop a research on the impact of the informal sector on income inequality and democratization. On the one hand, some limitations of this research should be underlined for further development. First, an unintentional consequence from the attempt in estimating the size of the informal sector in this research is the inability to emphasize the effect of informal labours. The unit of measurement of the informal sector's size is a percentage of GDP, not the percentage of total labour force. This kind of measurement captures the money involving in the informal sector rather than the number of informal labours. Hence, the impact of governmental ineffectively spending money on mega-projects could overrule high number of labours working in the informal sector as they made up less share in GDP. Second, regression analyses on democratization shows that further research on democratization should include more case studies as it is a rare event. The insufficient case studies might be the reason of poor goodness-of-fit indices in this research. Moreover, further research could pursue the effect of the informal sector on democratization in details; for example, the role of the middle class in the informal sector and democratization, and causal analysis of the informal sector and democracy.

10. References

Acemoglu, D. and Robinson, J. A. (2006). *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press.

Ajzen, I. (1988). *Attitudes, Personality, and Behavior*. Milton Keynes: Open University Press.

Anderson, J. and Gerbing, D.W. (1984). The effects of sampling errors on convergence, Improper solution and goodness of fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika*, vol. 49 (2), pp. 155-173.

Ansell, B. W. and Samuels, D. J. (2010). Inequality and Democratization: A Contractarian Approach. *Comparative Political Studies*, vol. 43(12), pp. 1543-1574.

Artelaris, P., Kallioras, D. and Petrakos, G. (2010). Regional Inequality and Convergence Clubs in the European Union New Member-State. *Eastern Journal of European Studies*, vol. 1 (1), pp. 113-133.

Austen-Smith, D. (2000). Redistributing Income Under Proportional Representation. *Journal of Political Economy*, vol. 108(6), pp. 1235-1269.

Austen-Smith, D. and Banks, J. (1988). Elections, Coalitions, and Legislative Outcomes, *American Political Science Review*, vol. 82(2), pp. 405-422.

Barber, B. (1984). *Strong Democracy*. Participatory Politics of a New Age. Berkeley: University of California Press.

Bates, R.H. and Lien, D-H. D. (1985). A Note on Taxation, Development, and Representative Government. *Politics & Society*, vol. 14, pp. 53-70.

Beramendi, P. and Anderson, C. J. (2008). Income Inequality and Democratic Representation. In Pablo Beramendi & Christopher J. Anderson (eds.), *Democracy, Inequality and Representation: A Comparative Perspective*. Russell Sage Foundation.

Berument, H. and Dincer, N. N. (2008). Measuring the Effects of Monetary Policy for Turkey. *Journal of Economic Cooperation*, vol. 29 (1), pp. 83-110.

Bhattacharya, P.C. (2011). Informal sector, income inequality and economic development. *Economic Modelling*, vol. 28(3), pp. 820-830.

Birch, A.H. (1993). *The concepts and theories of modern democracy*. London: Routledge.

Boeschoten, W.C. and Fase, M.M.G. (1948). *The volume of payments and the informal economy in the netherlands 1965-1982: an attempt at quantification*. Dordrecht: Martinus Nijhoff.

Boix, C. and Strokes, Susan C. (2003). Endogenous Democratization. *World Politics*, vol. 55(4), pp. 517-549

Bollen, K.A. (1989). Structural Equations with Latent Variables. New York: John Wiley & Sons.

Cagan, P. (1958). The Demand for Currency Relative to the Money Supple. *Journal of Political Economy*, vol. 66, pp. 302-328.

Crouch, C. (2004). *Post-Democracy*. Cambridge: Polity

Contini, B. (1981). Labor Market Segmentation and the Development of the Parallel Economy-the Italian Experience. *Oxford Economic Papers*, vol. 33, pp. 401-412.

Dahl, R. (1998). *On Democracy*. New Haven/London: Yale University Press.

De Schweinitz, K. Jr. (1959). Industrialization, Labor Controls, and Democracy, *Economic Development and Cultural Change*, vol. 7(4), pp. 385-404.

De Soto, H. (2000). *The Mystery of Capital: Why Capitalism Succeeds In The West And Fails Everywhere Else*. New York: Basic Books.

Del Boca, D. (1981). Parallel Economy and Allocation of Time. *Micros: Quarterly Journal of Microeconomics*, vol. 4, pp.13-18.

Del Boca, D. and Forte, F. (1982). Recent Empirical Surveys and Theoretical Interpretation of the Parallel Economy in Italy. In V. Tanzi (ed.), The Undergound Economy in the United States and Abroad (pp. 160-178). Lexington (Massachusetts): Lexington.

Downs, A. (1957). *An Economic Theory of Democracy*. New York: Harper and Row.

Ezcurra, R. and Rapún, M. (2007). Regional Dynamics and Convergence Profile in the Enlarged European Union: A Non-Parametric Approach. Journal of Economic and Social Geography, vol. 98 (5), pp. 564-584.

Falk, W. (1935). Democracy and Capitalism in Max Weber's Sociology. *The Sociological Review*, vol. 27(4), pp. 373-393.

Feige, E. (1979). How Big is the Irregular Economy? *Challenge*, vol. 22, pp. 5-13.

Feige, E. (1990). Defining and Estimating Underground and Informal Economies: The New Institutional Economics Approach. *World Development*, vol. 18(7).

Feld, L.P. and Schneider, F. (2010). Survey on the shadow economy and undeclared earnings in OECD countries. *German Economic Review*, vol. 11(2), pp. 109-149.

Finseeras, H. (2009). Income Inequality and Demand for Redistribution, *Scandinavian Political Studies*, vol. 32(1), pp. 94-119.

Franz, A. (1983). Wie größ ist die „schwarze" Wirtschaft? *Mitteilungsblatt der Österreichischen Statistischen Gesellschaft*, vol. 49(1), pp. 1-6.

Friedman, E., Johnson, S., Kaufmann, D., and Zoido-Lobatón, P. (1999). *Dodging and grabbing hand: the determinants of unofficial activities in 69 countries*. Washington D.C.: The World Bank, discussion paper.

Ghecham, M.A. (2017). The Impact of Informal Sector on Income Distribution: Could Concentration of Income be Explained by the Size of Informal Sector*? International Journal of Economics and Financial Issues*, vol. 7(1), pp. 594-600.

Gingrich, J. and Ansell, B. (2012). Preferences in Context: Micro Preferences, Macro Contexts and the Demand for Social Policy, *Comparative Political Studies*, vol. 45(12), pp. 1624-1654.

Gutmann, P. (1977). Subterranean Economy. *Financial Analysis Journal*, vol. 33, pp. 26-27.

Habermas, J. (1996). "Deliberative Politic: A Procedural Concept of Democracy". *Between Facts and Norms: contributions to a discourse theory of law and democracy* (W. Rehg, Trans.). United States of America: MIT Press. (Original work published 1992)

Haggard, S., Kaufman, R. R. and Long, J. D. (2013). Income, Occupation, and Preferences for Redistribution in the Developing World, *Studies in Comparative International Development*, vol. 48(2), pp. 113-140.

Hansen, M.H. (2005). *The Tradition of Ancient Greek Democracy and its Importance for Modern Democracy*. Denmark: Special-Trykkeriet Viborg a-s.

Hart, K. (1973). Informal Income Opportunities and Urban Employment in Ghana*, The Journal of Modern African Studies*, vol. 11(1), pp. 61-89.

Huntingtion, S. P. and Dominguez, J. I. (1975). Political Development. In Fred I. Greenstein & Nelson W. Polsby (eds.), *Handbook of Political Science: Vol. 3 Macropolitical Theory* (pp. 1-144). Reading-MA: Addison-Weasley.

Iversen, T. and Soskice, D. (2001). An Asset Theory of Social Policy Preferences. *The American Political Science Review*, vol. 95(4), pp. 875-893.

Iversen, T. and Wren, A. (1998). Equality, Employment and Budgetary Restraint: The Trilemma of the Service Economy, *World politics*, vol. 50(4), pp. 507-546.

Johnson, S., Kaufmann, D., and Schleifer, A. (1997). The Unofficial Economy in Transition. *Brookings Papers on Economic Activity*, vol. 2, pp. 159-259.

Kant, I. (1970). *Kant's Political Writings*. Reiss, H. (Ed.). Cambridge: Cambridge University Press.

Kaufmann, D. and Kaliberda, A. (1996). Integrating the Unofficial Economy into the Dynamics of Post-Socialist Economies: A Framework of Analysis and Evidence. Washington D.C.: World Bank. *Policy Research Working Paper 1691.*

Keller, T. and Tóth, I. G. (2003). Income Distribution, Inequality Perceptions, and Redistributive Preferences in European Countries. In J. Gornick & M. Jantti (eds.), *Income Inequality: Economic Disparities and the Middle Class in Affluent Countries.* Stanford University Press, pp. 173-203.

Kuznets, S. (1955). Economic growth and income inequality. *The American Economic Review*, vol. 45(1), pp.1-28.

Langfeldt, E. (1984). The Unobserved Economy in the Federal Republic of Germany. In E. Feige (ed.), *The Unobserved Economy* (pp. 236-260). Cambridge: Cambridge University Press.

Lewis, W. A. (1955). *The Theory of Economic Growth. London*: Allen & Unwin.

Lincoln, A. (1980). *Selected Writings and Speeches of Abraham Lincoln*. William, T. Harry (Ed.). New York: Hendricks House.

Lindeman, R.H., Merenda, P.F. and Gold, R.Z. (1980). Introduction to Bivariate and Multivariate Analysis. Glenview, IL: Scott, Foresman.

Lippert, O., Walker, M. (ed.). (1997). *The underground economy: Global evidences of its size and impact*. Vancouver, British Columbia: The Frazer Institute.

Lipset, S.M. (1959). Some Social Requisites of Democracy: Economic Development and Political Legitimacy. *The American Political Science Review*, vol. 53(1), pp. 69-105.

MacAfee, K. (1980). A Glimpse of the Hidden Economy in the National Accounts. *Economic Trends*, vol, 136, pp. 81-87.

Majgaad, K. and Mingat, A. (2012). *Education in Sub-Saharan Africa: A Comparative Analysis*. Washington D.C.: The World Bank.

Mallick, L., Pradeep, K.D., and Pradhan, K.C. (2016). Impact of educational expenditure on economic growth in major Asian countries: Evidence from econometric analysis. *Theoretical and Applied Economics*, vol. 23(2), pp. 173-186.

MacCallum, R. C., Browne, M. W. and Sugawara, H. M. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modelling. Psychological Methods, vol. 1 (2), pp. 130-149.

Meltzer, A.H. and Richard, S.F. (1981). A Rational Theory of the Size of Government. *Journal of Political Economy*, vol.89, pp. 914-928.

Mouffe, C. (2000). *The Democratic Paradox*. London/New York: Verso.

O'Donnell, G. A., Schmitter, P.C. and Whitehead, L. (1986). *Transition from Authoritarian Rule: Prospects for Democracy*. Baltimore-MD: Johns Hopkins University Press.

Phillips, A. (1991). *Engendering Democracy*. Cambridge: Polity Press.

Przeworski, A. (2004). Democracy and Economic Development. In E.D. Mansfield & R. Sisson (eds.), *The Evolution of Political Knowledge: Democracy, Economy and Conflict in Comparative and International Politics* (pp. 300-324). Columbus, Ohio: The Ohio State University Press.

Przeworski, A. and Limongi, F. (1997). Modernization: Theories and Facts. *World Politics*, vol. 49(2), pp. 155-183.

Przeworski, A. and Wallerstein, M. (1982). The Structural Dependency of the State on Capital, *The American Political Science Review*, vol. 82(1), pp. 11-29.

Rancière, J. (2000). „Konsens, Dissens, Gewalt", in: Mihan Dabag, Antje Kapust, Bernhard Waldenfels (Hg.): *Gewalt, Strukturen, Formen, Repräsentationen*. München: Fink 2000, 97-122.

Rawls, J. (1999). *A Theory of Justice* (2nd ed.). Cambridge: The Belknap Press of Harvard University Press.

Remini, L. and Traitaru, I. (2003). 'Spatial Implications of Economic Integration in EU Accession Countries' in I. Traitaru, P. Nijkamp and L. Remini (eds.) The Emerging Economic Geography in EU Accession Countries. Aldershot: Ashgate, pp. 3-24.

Robinson, E.W. (2004). *Ancient Greek Democracy: Readings and Sources*. Oxford: Blackwell Publishing Ltd.

Ross, M.L. (2001). Does Oil Hinder Democracy? *World Politics*, vol. 53(3), pp. 325-361.

Rosser, J.B., Rosser, M.V. and Ahmed E. (2000). Income Inequality and the Informal Economy in Transition Economies. *Journal of Comparative Economies*, vol. 28, pp. 156-171.

Schneider, F. (2002). *Size and Measurement of the Informal Economy in 110 Countries Around the World*. The rapid response unit, Washington D.C.: The World Bank.

Schneider, F, Buehn, A. and Montenegro, C.E. (2010) Shadow Economies All over the World – New Estimates for 162 Countries from 1999 to 2007. The World Bank, *Policy Research Working Paper 5356.*

Schneider, F., Ernst, D. (2000). Informal Economies: Sizes, Causes and Consequences. *The Journal of Economic Literature*, vol. 38(1), pp. 77-114.

Schneider, F. and Williams, C.C. (2013). *The Shadow Economy*. London: The Institute of Economic Affairs.

Shaw, T. (2008). Max Weber on Democracy: Can the People Have Political Power in Modern States?, *Constellation*, vol. 15(1), pp.33-45.

Tanzi, V. (1999). Uses and Abuses of Estimates of the Underground Economy. *The Economic Journal*, vol. 109(456), pp. 338-340.

Thomas, J.J. (1992). Informal economic activity. *LSE Handbook in economics*. London: Harvester Wheatsheaf.

Weber, M. (1958). *The Protestant Ethic and the Spirit of Capitalism*. New York: Scribner.

Weiss, D.J. (1972). Canonical correlation analysis in counseling psychology. Journal of Counseling Psychology, vol. 19 (3), pp. 241-252.

Young, J. (1999). *The exclusive society*. London: Sage.

Ziegenhain, P. (2008). The Indonesian Parliament and Democratization. Singapore: ISEAS Publishing.

Internet Sources

BBC News. (6 June 2011). *India: Protest against crackdown on Baba Ramdev*. Retrieve from https://www.bbc.com/news/world-south-asia-13663849

Bentham, J. (1823). *An Introduction to the Principles of Morals and Legislation* [2017]. Retrieved from: https://www.earlymoderntexts.com/assets/pdfs/bentham1780.pdf

Constant, B. (2011) [1816]. *The Liberty of the Ancients Compared with that of the Moderns*. Online Library of Liberty. Retrieved from: http://lf-oll.s3.amazonaws.com/titles/2251/Constant_Liberty1521_EBk_v6.0.pdf

Fisher III, W. W. and Rigamonti C. P. (10 February 2005). *The South Africa AIDS controversy: A Case Study in Patent Law and Policy*. The Law and Business of Patents. Harvard Law School. Retrieved from https://cyber.harvard.edu/people/tfisher/South%20Africa.pdf

Hill, E. (13 September 2010). *Major reforms cast as a power grab: Turkey's referendum would deeply alter the legal system, which foes say helps the ruling party stay in power*. Al Jazeera. Retrieved from https://www.aljazeera.com/indepth/briefings/2010/09/201098133815256515.html

Kihwan, K. (10-11 July 2006). *The 1997-1998 Korean Financial Crisis: Causes, Policy Response, and Lessons*. The High-Level Seminar on Crisis Prevention in Emerging Markets (organized by The International Monetary Fund and The Government of Singapore). Retrieved from https://www.imf.org/external/np/seminars/eng/20e06/cpem/pdf/kihwan.pdf

ILO (18 June 2015) *Five Facts About Informal Economy in Africa.* Retrieved from: https://www.ilo.org/africa/whats-new/WCMS_377286/lang--en/index.htm

ILO (30 April 2018). *More than 60 percent of the world's employed population are in the informal economy*. Retrieved from https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_627189/lang--en/index.htm

Investopedia Staff (3 February 2020). *Gini Index*. Reviewed by Peter Westfall. Retrieved from https://www.investopedia.com/terms/g/gini-index.asp

Mackay, G. (26 May 2015). *Social Protests on the Rise of South Africa (Press Release)*. South African Institute of Race Relations. Retrieved from https://irr.org.za/media/media-releases/social-protests-on-the-rise-in-south-africa

Macovei, M. (2009). *European Economy: Growth and economic crises in Turkey: leaving behind a turbulent past?*. Economic Papers 386. Economic and Financial Affairs of the European Commission. Retrieved from https://ec.europa.eu/economy_finance/publications/pages/publication16004_en.pdf

Mill, J. S. (1863). *Utilitarianism* [2017]. Retrieved from: https://www.earlymoderntexts.com/assets/pdfs/mill1863.pdf

Roser, M. (2018). *Democracy.* Retrieved from: https://ourworldindata.org/democracy

United Nations Office for the Coordination of Humanitarian Affairs (OCHA). (26 July 2005). *Niger Food Crisis 2005: Humanitarian Situation Report No.1*. Retrieved from https://reliefweb.int/report/niger/niger-food-crisis-2005-humanitarian-situation-report-no-1

Data Sources

International Labour Organization. (2020). ILOSTAT database [database]. Available from:
    https://ilostat.ilo.org/data/

International Monetary Fund. (2019). World Revenue Longitudinal Data. Available from:
    https://data.imf.org/

The Heritage Foundation. (2020). Index of Economic Freedom. Available from:
    https://www.heritage.org/index/

The World Bank Group. (2019). World Bank Open Data [database]. Available from:
    https://data.worldbank.org/

The World Bank Group. (2020). World Development Indicators. Available from:
    https://databank.worldbank.org/source/world-development-indicators

11. Appendix

Table A1. The absolute size and development of the informal sector of the 10 countries between 1995 and 2006

Country	Year											
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Poland	25.29	26.05	25.28	25.24	25.31	27.15	27.54	27.86	27.5	27.44	27.08	23.58
Turkey	32.84	34.05	32.10	33.12	33.24	37.21	39.67	35.09	31.8	31.67	34.46	36.63
Hungary	25.74	24.24	23.87	24.22	24.79	25.91	26.52	26.21	24.4	23.68	23.07	24.25
South Korea	19.79	20.71	20.90	21.58	23.20	25.33	26.01	26.73	26.8	27.61	27.48	30.25
Greece	28.55	28.01	26.05	25.19	25.79	26.21	26.58	27.38	27.4	27.43	28.00	27.13
average OECD	*26.44*	*26.61*	*25.64*	*25.87*	*26.47*	*28.36*	*29.26*	*28.65*	*27.58*	*27.57*	*28.02*	*28.37*
Thailand	58.00	56.09	53.82	54.40	55.80	57.02	49.16	49.10	50.2	48.89	52.24	55.55
Indonesia	14.49	15.94	16.65	19.95	23.09	21.03	22.25	20.98	19.1	19.19	18.88	19.73
India	14.02	18.81	20.21	21.50	25.51	24.80	23.81	21.93	22.3	18.89	26.34	22.99
Niger	15.01	17.71	21.84	29.80	28.36	24.18	28.23	33.29	39.7	22.14	35.62	27.96
South Africa	28.48	28.93	27.49	26.66	26.78	26.54	25.99	27.43	27.8	26.16	25.91	25.80
average non-OECD	*26.00*	*27.50*	*28.00*	*30.46*	*31.91*	*30.71*	*29.89*	*30.55*	*31.82*	*27.05*	*31.80*	*30.40*

Table A2. The absolute size and development of the informal sector of the 10 countries between 2007 and 2019

Country	Year												
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Poland	23.72	23.08	23.56	26.98	26.00	26.04	27.54	28.43	27.78	26.23	24.59	23.02	21.67
Turkey	38.48	39.60	42.45	43.30	43.48	39.83	40.27	39.21	36.07	34.73	33.74	34.04	34.20
Hungary	23.98	25.01	24.91	25.07	24.96	25.76	25.72	24.23	22.83	22.05	21.41	21.48	22.25
South Korea	31.46	29.86	31.97	33.46	33.97	33.56	33.49	34.08	33.17	34.29	33.90	34.13	34.24
Greece	26.99	27.89	28.69	29.06	29.50	31.34	32.51	29.44	27.39	26.12	26.55	27.51	28.37
average OECD	*28.93*	*29.09*	*30.32*	*31.57*	*31.58*	*31.31*	*31.91*	*31.08*	*29.45*	*28.69*	*28.04*	*28.03*	*28.15*
Thailand	51.73	50.96	49.54	48.60	56.18	57.84	62.21	67.32	68.15	68.24	65.93	70.35	73.13
Indonesia	21.19	22.07	22.37	24.80	26.13	26.25	26.43	31.14	25.29	30.67	28.43	30.26	33.61
India	29.85	22.96	27.50	21.51	21.00	11.58	40.63	12.08	32.07	34.47	40.31	43.45	44.12
Niger	29.25	32.77	32.33	31.77	32.88	26.87	25.21	25.35	29.73	29.37	26.65	26.81	29.77
South Africa	25.48	24.99	25.45	24.79	25.65	25.91	26.40	25.77	24.06	23.31	22.22	22.56	22.51
average non-OECD	*31.50*	*30.75*	*31.44*	*30.29*	*32.37*	*29.69*	*36.18*	*32.33*	*35.86*	*37.21*	*36.71*	*38.69*	*40.63*

Table A3. Average of the size of the informal sector of the 10 countries between 1995 and 2019

Poland	Turkey	Hungary	South Korea	Greece	*Average OECD*	Thailand	Indonesia	India	Niger	South Africa	*Average non-OECD*
25.76	36.45	24.26	29.12	27.80	*28.68*	57.22	23.20	25.71	28.10	25.72	*31.99*

12. Abstrakt (Deutsch)

Die Demokratietheoretische Forschung beschäftigte sich zuletzt zunehmend auch mit Auswirkungen von Einkommensungleichheit auf Demokratiebildung. Zumeist wird hierbei eine wichtige Rolle von Besteuerung bei der Einkommensverteilung angenommen. Diese Annahme erzeugt jedoch einen Bias, da Besteuerung in Ländern mit konsolidierten Demokratien vergleichsweise meist besonders effektiv ist. Unter Berücksichtigung dieser Diskrepanzen fokussiert die vorliegende Masterarbeit auf den Einfluss des Teils der Wirtschaftsleistung der einer Besteuerung nicht zugänglich ist (der informelle Sektor), welcher besonders in Entwicklungsländern von herausragender Bedeutung ist. Da es sich hierbei um einen frühen Versuch handelt, den Effekt des informellen Sektors in Bezug auf Demokratisierung und Einkommensungleichheit zu berücksichtigen, ist das Hauptziel dieser Arbeit eine explorative Datenanalyse zur mit der Forschungsfrage, ob ein signifikanter Einflusses der Größe des informellen Sektors auf die Beziehung zwischen Einkommensungleichheit und Demokratisierung zu vermuten ist, oder nicht. Zu diesem Zweck werden *Structural Equation Modelling*, geschichtliche Kontextanalyse und Multiple lineare und logistische Regressionen auf Daten von 10 Ländern (5 OECD-Länder: Griechenland, Ungarn, Polen, Südkorea, Südafrika und Türkei, sowie 5 Nicht-OECD-Länder: Indien, Indonesien, Niger, Südafrika und Thailand) von 1995 bis 2019 angewandt. Das *Structural Equation* Modell zeigte einen überlegenen Einfluss von Regierungsineffizienz auf den informellen Sektor, sogar im Vergleich zu informeller Arbeit selbst. Dieses Ergebnis findet weiteren Rückhalt in der historischen Kontextanalyse. Außerdem scheint internationaler Druck die Größe des informellen Sektors im Rahmen des Monitorings von Reaktionen der Regierungen auf innenpolitische Problemstellungen zu beeinflussen. Trotz der beachtlichen Wirkung des informellen Sektors findet die vorliegende Arbeit den entscheidenden Faktor für Demokratisierungen und deren Nachhaltigkeit weiterhin in der Einkommensungleichheit selbst. In Form von *Top 1% Income Share* ist diese stark positiv mit Demokratisierung und deren Nachhaltigkeit korreliert. Während Einkommensungleichheit und informeller Sektor daher Demokratisierung und deren Nachhaltigkeit im vorliegenden Datensatz zu unterstützen scheinen, umgekehrt ist deren gemeinsames Auftreten der Demokratiebildung und -erhaltung offenbar eher hinderlich.

13. Abstract (English)

A growing number of researches on democratization focus on the effect of income inequality. However, most of these assume taxation to be playing a key role in income distribution. The bias of that assumption is that taxation is usually more effective in countries where democracy is already consolidated. Considering these major discrepancies, this master's thesis focuses on the impact of the economy not under taxation (the informal sector) which is especially important in developing countries. Since this is one of the first attempts to include the informal sector in considerations on democratization and inequality, the main purpose of this research is an exploratory analysis on whether the size of the informal sector has a significant impact on the relationship between income inequality and democratization or not. To find the answer, this research employs Structural Equation Modelling, historical context analysis and multiple logistic and linear regression analyses on data from 10 countries (5 OECD countries, including Greece, Hungary, Poland, South Korea, and Turkey, and 5 non-OECD countries, including India, Indonesia, Niger, South Africa, and Thailand) during 1995 to 2019. In the structural equation model calculation of the informal sector, governmental ineffectiveness proved to be more influential on the informal sector than even informal labour itself. This finding is also highly supportable by historical context. Additionally, international pressure may reduce the size of the informal sector as it monitors government's reaction to domestic problems. Despite the informal sector's considerable influence, this research finds that income inequality is still the decisive factor for democratization and the survival of democracy afterwards. In the combined model, income inequality in terms of top 1% share income is strongly and positively correlated with democratization and democratic sustention. While income inequality and informal sector on their own therefore seem to be conductive of democratisation in these data, democratisation conversely is hindered and shortened when both coincide together.