Journal of International and Area Studies Vol. 29 No. 2 (2022): 61-84
doi: https://doi.org/10.23071/jias.2022.29.2.61

How Do Informal & Formal Institutions Affect Economic Development in East Asia and West?

Kee Hoon Chung

This research explores how informal and formal institutions affect economic development differently in various East Asian country groups and West. Based on previous studies, we theorize that informal and formal institutions – social trust and protection of property rights – promote economic development in West, but hinder economic development in East Asia, due to different market mechanisms. In West, informal and formal institutions promote economic development by constraining government from acting on its whim, sustaining liberal market. On the contrary, such constraints may hamper economic development in East Asia, where government plays a central role sustaining market. Using two-way fixed effects panel data analysis from 1995 to 2010, our analysis confirms our expectation for East Asia. The result is robust after analysing similar country groups – East Asia and East Asian democracies. This research makes contribution to previous studies by empirically testing different market mechanisms for development in the two regions.

Keywords Economic Development, East Asia, Interaction Effect, Informal Institution, Formal Institution, West.

INTRODUCTION

How do institutions affect economic development? Previous studies have wrestled with this question for a long time. Initially, scholars emphasized importance of formal institutions such as rule of law, security of property rights, and judicial independence (Daron Acemoglu, Johnson, & Robinson, 2005; Haggard, MacIntyre, & Tiede, 2008; Rodrik, Subramanian, & Trebbi, 2004). This, however, has been challenged by the East Asian states that achieved rapid economic growth during from 1960s to 80s despite lacking effective formal institutions. Under numerous typologies – Asian Growth Paradox and East Asian Tigers – previous studies have investigated East Asia's institutions (Evans & Rauch, 1999; Haggard, 2004; Rodrik, 1994). Today, scholars

Kee Hoon Chung is an assistant professor of Public Administration, University of Ulsan, Ulsan, Republic of Korea. E-mail: pigul@ulsan.ac.kr

This work was supported by the 2022 Research Fund of University of Ulsan.

Article Received: 13-10-2022 Revised: 24-11-2022 Accepted: 09-12-2022

generally agree that developing countries rely more on informal institution such as social trust than formal institution such as protection of property rights to achieve development (Acemoglu, North, Rodrik, & Fukuyama, 2008; Kurtz & Schrank, 2007).

Based on previous studies, we find two limitations. First, despite much investigation in a comparative manner, existing studies have not shown why institutions affect economic development differently, both in an evidence-based manner and as to identifying the driving force behind it. Second, much of their work focuses only on a single type of institution – formal or informal – with less emphasis on how they simultaneously affect economic development. Recently, more attention has been given to this. Helmke and Levitsky (2004) introduces four types of interaction between informal and formal institutions: Complementing, accommodating, competing, and substituting. Empirically, Williamson (2009) and Williamson and Kerekes (2011) analysed how informal and formal institutions interact to promote development. Chung and Kim (2021) examine how the interactions between formal and informal institutions differ across various countries, including various regions and for OECD and non-OECD groups. Their work, however, has empirical as well as theoretical limitations, conducting cross-sectional analysis and not explaining why informal and formal institutions display different effects across country groups. Third, prior studies using the notion such as East Asian Tigers and Asian Growth Paradox appear to suggest that institutional mechanism in East Asia is mutually exclusive, that is, informal and formal institutions compete against one another to achieve growth. However, East Asian countries have come a long way since the notion of East Asian Tiger and Asian Growth Paradox were developed in 1970s and 80s, with East Asian countries such as South Korea becoming an advanced democracy and an OECD member state. Despite these advancements, not much empirical studies using a panel data has examined the state of East Asia's institutional dynamics.

Against this backdrop, this research aims to make contribution by examining how informal and formal institutions affect economic development differently in East Asia and West, along with why that is the case. Specifically, our first contribution lies in incorporating informal and formal institutions into comparative analysis of East Asia and West, while second contribution lies in providing theoretical mechanism for why patterns of institutional effects differ on development for the two groups. We argue that due to different market mechanisms, both informal and formal institutions exert different effect on development. In West, economic development is driven by liberal market, whereas in the East Asian states, existing research suggests that markets were driven by the government (Wade, 1990, 1994). Their differences in markets are summarized by Greif (2005), who maintains that markets can be sustained through different combinations of institutions that enforce contracts and constrain actors. For Greif, markets can prosper even without the conditions of the rule of the law and limited government (Greif, 2005, p. 728).

Due to the different market mechanisms, informal and formal institutions may exert different effects and patterns for economic development in the two regions. For example, within Western states, informal and formal institutions such as social trust and protection of property rights may positively affect economic growth by constraining the government from acting on its whim and predatory practices, thus sustaining

liberal markets. Since social trust can be interpreted as morals of citizens, social trust likely helps facilitate enforcement of laws, including laws on as protection of property rights. As a result, informal and formal institutions may encourage greater market activities. On the other hand, this may not be the case in the East Asian states, where the market thrives around the government (Haggard, 2004; Kohli, 2004; Wade, 1994). For these states, strong informal and formal institution may hamper economic growth by constraining government's capacity to coordinate market transactions and establish credible commitments for the market. Thus, for Western states, we expect informal and formal institutions to positively affect economic growth, while for the East Asian states, that may not be the case. As for their interaction effect, we conduct an exploratory analysis to gauge which types of interactions explain economic development for each country group. We further elaborate on our theoretical expectation under the section theoretical framework.

Conceptually, we define formal institution as the protection of property rights, and informal institution as social trust. As for the regional groups, East Asian states include South Korea, Indonesia, Thailand, Philippines, Malaysia, and Singapore, whereas Western countries include countries from Western Europe, the United States, and Canada. As a robustness check, we conduct various additional tests with various East Asian groups such as East Asian democracies, and East Asia as a region with broader countries.

To test our hypothesis, we employ longitudinal analysis with two-way fixed effects from 1995 to 2010 for the East Asian and Western states. Our results are consistent with our theoretical expectation for East Asia and partially for West. In Western states, formal institution exerts positive influence, while social trust is not significant. For the East Asian states, both informal and formal institutions exert negative influence on growth.

The interaction effect in East Asia robustly displayed a complementing relationship between formal and informal institutions. While we provide several possible explanations, we note that in the future, we hope to offer a theoretical explanation for the interaction effects. The next section begins with background on East Asia and West, followed by previous studies and theoretical expectation, empirical strategy and data and result and discussion. Finally, we end with conclusion.

BACKGROUND: EAST ASIA AND WEST

Various studies have comparatively examined institutional mechanisms of growth for East Asia and West. Haggard (2004) finds that in East Asia, strong government lowered transaction costs for cooperation between different ministries through installing trust. More specifically, Haggard emphasizes the importance of business-government networks in East Asia, which substituted the functions of rule of law found in West. Through such network, East Asian states improved their coordination between business, government, and banks. As a result, they harvested policies that minimized predation and brought credible commitment for businesses to invest and engage in economic activities. These mechanisms enabled East Asian states to maximize their resources and manipulate their comparative advantages, allowing them to compete in the world market. Such mechanism differed from the ones found in West, which centered on

constraining government under the law and accepting the comparative advantage as given.

Similar findings have been researched by Li (2003). Li identifies certain East Asian states – South Korea, Indonesia, Thailand, Philippines, Malaysia, Singapore, Taiwan, and Hong Kong – as Relation-based governance, where no check and balance exist between the executive, judiciary, and national assembly and between the government and businesses due to exclusive and closed trusts between them. On the other hand, West relied on different mechanism, the Rule-based governance, where check and balance and separation of power within the government characterized the three branches and between the government and businesses. Moreover, in rule-based governance, impartial courts play a key role for fostering economic development. In sum, in West, studies have emphasized minimizing government intervention on markets and economic activities by constraining the government, whereas in East Asian states, studies have emphasized the contrary, emphasizing role of active government creating and sustaining markets to promote growth.

Studies have examined why the institutional mechanism differs for the two regions. Although an on-going debate, scholars such as Kohli (2004) has found colonialization experience as an explanation for one of the East Asian countries, South Korea. For Kohli (2004), the colonialization experience with Japan is one of the contributing factors of South Korea becoming a "strong state," improving efficiency of its bureaucracy and transforming the dynamic between government, enterprise and civil society. Specifically, . the state provided cheap labour for the businesses by suppressing the civil society and labour class, which enhanced business's productivity.

Other studies have found that the international context matters, as South Korea and other East Asian states were viewed as strategically important. As a result, these countries were heavily invested by the United States (Bernard, 1996; Cumings, 1984). In addition, other studies have shown that the regional wars – Korean War and the Vietnam War – also played a role, shaping economic and political institutions in these countries that, positively contributed to economic development (Stubbs, 2017).

PREVIOUS STUDIES AND THEORETICAL EXPECTATION

Previous studies

Institutions have been studied and researched since the time of Plato, Socrates, and Aristotle. Prominent scholars have continued to debate the definition and functions of institution (Veblen, 1915; Coase, 1937; North, 1993; Williamson, 1990; Nelson and Winter, 1983). Eventually, these studies ended up emphasizing four branches of institutions: Convergence, Transaction cost, property rights, and agency theory. Veblen (1915) argued that institutions evolved, which meant that they eventually converged around the world. On the other hand, Coase (1937) explained why institutional quality may differ across countries through transaction costs, which affected coordination and cooperation. Eventually, Coase (1959) showed that legal system can lower transaction costs by enabling a clear delimitation of property rights through the market.

Williamson (1990) provides a nice systematic overview of institutions. For Williamson, property rights emphasize importance of legal system, but for transaction costs, it does not necessarily have to involve legal system, as there may be non-legal methods for bringing down transaction costs for cooperation and coordination, such as informal institutions. North (1993) emphasizes importance of politics in understanding how property rights function, as polities play a central role enforcing and defining property rights. Because of this, North emphasizes the importance of credible commitment, or how credible the polities are in honouring the existing arrangement.

For North (1993), institutions are constraints imposed on actors, be it the government or actors of the market. Based on this definition, institution can promote economic development by constraining the government to act more responsibly and predictably, inducing market activities and investments. Without such constraint, the government may expropriate assets from citizens at its whim, scaring away investors and participants of markets. In sum, institutions provide credible commitment necessary to develop low-cost transacting in capital and other markets, both through informal and formal institutions.

Formal Institution

Formal institution is generally defined as written constitution, laws, and policies enforced by official authorities (Leftwich & Sen, 2010). Some examples are laws that constrain the government such as rule of law, judicial independence, and protection of property rights, three concepts commonly used in previous literature (Haggard et al., 2008; Haggard & Tiede, 2011). For example, the greater the autonomy of judicial independence implies greater power over other branches, such as the executive and legislature (Linzer & Staton, 2015). When such constraints are place on the executive, the executive will less likely to act on its whim, thus preserving stability of markets, fostering investments, and respecting citizen's protection of property rights. Protection of property right means how clearly laws are defined to secure property rights and how effective the state enforces the law (Gwartney, Lawson, Hall and Murphy, 2022). Rule of law pertains to how fairly laws are applied across different class of citizens. In sum, all three concepts relate to constraining the government under the law, as high level of rule of law, judicial independence, and protection of property rights all imply governments cannot act on its whim for transgression of laws, establishing credible commitment to minimize predatory actions.

Informal institution

Informal institutions, like formal institutions, can promote development by constraining the government not to act on its whim, but through social norms (Williamson, 2009; Williamson & Kerekes, 2011). For example, Tsai (2006) shows that in rural China, where formal rules are at a nascent stage and thus not well-developed, informal norms such as customs and religious activities that have been passed down for generations of time can either complement or substitute the role of the formal institution of constraining the government and promote development.

One of the more famous and commonly known type of informal institution is social capital and generalized trust. Some scholars interchangeably use the two, whereas

some scholars differentiate the two. Either way, both facilitate development by lowering transaction cost for citizens to cooperate, thus resolving collective action problem (Putnam, 2000; Williamson & Kerekes, 2011). Through cooperation, citizens may directly and indirectly affect economic development. First, prior studies have found that in societies with high trust, citizens are less likely to worry about thefts and robbery, hence better able to enforce property rights. Therefore, in high trust societies, less resource is required for law enforcement, strengthening market activities.

Second, trust may substitute functions of formal institutions such as protection of property rights. Specifically, under certain circumstances, informal institutions may be more effective than formal institutions for enforcing laws and order. For example, Dixit (2003) shows that when a merchant is caught cheating, the court and the law enforcement may require the merchant to pay a small fine. However, if there exists a network of merchants, an association, the merchant may be banned from the association and may lose its entire business. Third, trust may strengthen markets by constraining the government from acting on its whim (Hadfield & Weingast, 2014; Qian & Weingast, 1997) and lowering transaction costs for conducting market exchanges and transactions (Horak & Klein, 2016; Li & Wu, 2010; Putnam, Leonardi & Nanetti, 1992).

Theoretical Expectation

Informal and formal institutions affect economic development by complementing or competing against one another (Pejovich, 1999). Based on the two mechanisms, Helmke and Levitsky (2004) introduce four types of interactions: Complement, accommodate, compete, and substitute. Under effective formal institutions, complement means that informal institutions complement formal institutions to bring surplus effect, whereas accommodate means informal institution is at a neutral state, neither complementing nor competing against formal institution. Under ineffective formal institutions, compete means that formal institution competes against informal institution for influence, whereas substitute means informal institution replaces formal institution. Today, scholars generally agree that developed countries tend to rely more on formal institutions for economic development, whereas as developing countries rely more on informal institutions (Kurtz and Schrank, 2007). According to Dixit (2007), countries initially rely on informal institutions for development, because it has lower fixed cost than formal institutions. Such argument is consistent with how corruption can grease the wheels of growth by facilitating growth in societies with low qualities of governance (Méon & Sekkat, 2005). As economies grow and become more complex, however, Dixit (2007) maintains that countries relying on informal institutions will eventually transform to rely greater on formal institutions, since informal institutions have higher marginal costs than formal institutions, which may become unbearable at some point.

Based on these findings, we hypothesize that for Western states, informal institution complements formal institution, since we expect formal institution to be more effective in Western states. Specifically, under liberalized markets, protection of property rights enhances economic growth by constraining government and other actors under the law, hence minimizing predatory actions and establishing credible commitment. As a result, liberalized market is sustained, and thus leads economic development by

inducing investments and economic activities. Similarly, high social trust implies that greater willingness for citizens to directly enhance growth through lowering costs for law enforcement, or indirectly enhancing growth through constraining the government. In sum, we expect both protection of property rights and social trust to complement one another.

For the East Asian states, we expect different mechanism and perhaps, different effect as well. Much of prior studies have shown that East Asia has a history of industrializing through strong government intervention (Haggard, 2004; Kohli, 2004; Li, 2003). Through government intervention, these states manipulated their comparative advantage, which enabled them to compete in the world market. Due to the markets being strongly influenced by the government, we expect both protection of property rights and social trust to not significantly affect growth or negatively associated with growth. Higher scores of the protection of property rights imply greater degree of liberalized markets and constraining the government and other economic actors under the law from predatory actions such as expropriation of assets. Similarly, higher scores of social trusts mean greater degree of civic activism, constraining the government. Since East Asian markets rely on the government relatively more than West, higher scores of both protection of property rights and social trust may constrain government from governing the market.

The idea that protection of property rights and social trust may negatively affect economic development is not new. According to Chang (2011), too much protection of property rights may hamper economic growth by overemphasizing free market and limiting role of the government. Chang sites case of Singapore as an example where role of the government is crucial for facilitating growth. In Singapore, due to small land space, the government plays a central role in distribution of housing, responsible for more than 85% of overall housing supplies. Furthermore, state-owned enterprises (SOE) are highly efficient, accounting for 20% of Singapore's GDP and contributing to Singapore's sound fiscal position.

Chang (2011)'s findings suggest a possibility that high level of protection of property rights may hamper economic growth. However, this may not apply to East Asia which scores lower on protection of property right than West (Chung & Kwon, 2021). What may be more relevant from Chang (2011)'s research is the implication that the relationship between formal institution and development is not always the same and may depend on country's context. In this regard, one possible explanation is that when countries lack high quality of governance such as high level of protection of property right, corruption may serve as a more effective alternative (Méon & Sekkat, 2005). Empirically, studies have confirmed such is the case in East Asia, where corruption can promote growth by enhancing efficiency of the economy (Chung & Kwon, 2021; Li & Wu, 2010). On the other hand, for more advanced countries, rather than "grease the wheels of growth," "sand the wheels of growth" may serve as a more effective tool for growth (Cooray & Schneider, 2018).

Similarly, some research suggests that too much social trust may hamper economic growth by stymieing necessary reforms needed (Roth 2009). One of the examples is reforms in labour market. Due to heightened competition arising from globalization, countries may need labour reforms to gain competitive edge. However, if civic activism

inclusive of labour class is too strong, it may hinder government from making necessary reforms, and thus hamper economic growth. East Asian countries such as South Korea has a history of strong civil society, with the civil society playing a role achieving democratization in 1989 (Kim 2006). Finally, studies have shown that in East Asian countries such as South Korea, high level of social trust is closely associated with high level of closed and exclusive trust (Chung & Kwon, 2021; Horak & Klein, 2016). Thus, higher levels of social trust in East Asia can mean higher levels of closed and exclusive trust, which may not positively affect economic growth.

Therefore, we hypothesize the following:

Hypothesis 1-1: Formal and informal institutions are positively associated with economic growth in Western states.

Hypothesis 1-2: Both formal and informal institutions are positively associated with economic growth in East Asia.

For the interaction effect between informal and formal institutions, we hypothesize the following:

Hypothesis 2-1: For Western states, we expect the interaction between informal and formal institutions to be positive.

Hypothesis 2-2: For East Asia, we expect the interaction between informal and formal institutions to be negative.

In the next section, we explain our empirical strategy to test our theoretical expectations.

EMPIRICAL STRATEGY AND DATA

Our empirical model primarily builds on the work by Williamson (2009), who examined how informal and formal institutions affect economic performance through cross-sectional analysis. Building onto their work, we expand their empirical model into a panel data analysis, employing fixed effects estimation. As a result, time-invariant control variables used in Williamson's model are excluded in our empirical model, only including time-variant control variables. Based on this model, our empirical strategy relies on interaction effects between three variables – Informal institution, formal institution, and the country group. We further elaborate our estimation strategy in the first section, under model specification, followed by explanation of data.

Model specification

Our empirical analysis utilizes panel data analysis from 1995 to 2010, with samples consisting of countries from East Asia and Western states. For the specific country groups, our analysis compares East Asian states – South Korea, Malaysia, Thailand, Singapore, Indonesia, and Philippines[1] – and Western states – countries from Western

[1] Although Hong Kong and Taiwan also qualifies as East Asian states, they are not included due to

Europe, the United States, and Canada. However, for robustness checks, we also analyse OECD states, East Asia as a region, and East Asian democracies. For more information on the country groups, please refer to our Appendix A.3. To decide which panel method to use, I first compared the empirical results between random effect model and fixed effects model using Hausman test. Since the null hypothesis that prefers the random effect model is rejected, this research will employ fixed effects model. The result of Hausman test, along with joint F-test, is available in the Appendix A1.

Below is our baseline regression model:

$$Inc_{ct} = \beta_1 For_{ct} + \beta_2 Inf_{ct} + X_{ct} \cdot \delta + C_c + Y_t + \varepsilon_{ct} \quad (1)$$

Dependent variable, Inc_{ct}, represents income per capita for the given country c in given year t, and one of the explanatory variables, For_{ct}, represents formal institution measured as protection of property rights for the given country c in given year t. The other explanatory variable, Inf_{ct}, represents informal institution measured as social trust for the given country c in given year t. Vector $X_{ct} \cdot \delta$ represents control variables of government consumption, education, and urban population, which we will further explain in the next section, under data. C_c represents country fixed effects for the given country c, and Y_t represents year fixed effects, with the base year being 1995 and comparison year 2000, 2005, and 2010. Since we want to compare different regional groups, we use interaction effect, interacting country group and informal and formal institutions. Model 2 below captures this:

$$Inc_{ct} = \beta_1 For_{ct} + \beta_2 Inf_{ct} + \beta_3 For_{ct} \cdot Inf_{ct} + \beta_4 For_{ct} \cdot G_c + \beta_5 For_{ct} \cdot G_c + \beta_6 Inf_{ct} \cdot G_c + \beta_7 For_{ct} \cdot Inf_{ct} \cdot G_c + \beta + X_{ct} \cdot \delta + C_c + Y_t + \varepsilon_{ct} \quad (2)$$

G_c represents country groups, such as the seven East Asian states (EA7), East Asia (EA), East Asian democracies (EADem). To make a direct comparison to the Western states, for all East Asian country groups, reference group ($G_c = 0$) is the Western states. Because fixed effects panel data analysis does not allow time invariant variables such as G_c to be included, G_c is not represented within the model 2. However, since time invariant variables are allowed as one of the interaction variables, we exploit this to compare East Asian states and Western states. Specifically, as shown in the model 2, we interact country group variable, G_c, with formal and informal institutions. Since Western states are reference group ($G_c = 0$), effects of institutions on income for Western states equals: $\beta_1 For_{ct} + \beta_2 Inf_{ct} + \beta_3 For_{ct} \cdot Inf_{ct}$. On the other hand, the marginal effect for the comparison group, the East Asian states, is: $\beta_4 For_{ct} \cdot G_c + \beta_5 For_{ct} \cdot G_c + \beta_6 Inf_{ct} \cdot G_c + \beta_7 For_{ct} \cdot Inf_{ct} \cdot G_c$. Thus, if we wanted to gauge the overall institutional effects for the East Asian states, we would simply add the marginal effects to the baseline effect of $\beta_1 For_{ct} + \beta_2 Inf_{ct} + \beta_3 For_{ct} \cdot Inf_{ct}$. After comparing East Asian states with the Western states, we conduct additional tests, including East Asia as a whole, East Asian democracies, and so forth.

---

lack of available data

Data

Our variables follow previous research on informal and formal institutions on development (Williamson, 2009; Williamson & Kerekes, 2011). Based on these research, we employ time-variant control variables such as government consumption, urban population, and education to our empirical model. Since we employ fixe effects for panel data analysis, we do not include time-invariant measures such as legal origin and geography. For more information on all variables, please see the Appendix A2. To gauge how informal and formal institutions affect economic development, we use income, or GDP per capita as the dependent variable. For the main analysis, we use income in terms of power puirchaisng parity, and as a robustness test, use income in terms of constant US dollars, 2010. As for the source of the index, we use the World Development Indicator (WDI), with 2010 being the constant year and the base country the United States. For measuring purpose, we transform the variable using log function.

As for the explanatory variables, we conceptualize formal institution as protection of property rights, which has been identified as one of the robust institutions for economic development (Williamson & Kerekes, 2011). Higher the scores of the protection means higher the scores of market liberalization, which also implies constraining the government under law (Chang, 2011).

Although a recent study by Zhang, Rasiah & Cheong (2019) suggest a different institutional mechanism in China, other studies have also shown that property rights in Asia do not significantly differ compared to rest of the world (Branstetter, 2017). While this issue is an on-going debate deserving a topic of its own, for this research, we we use protection of property rights across East Asia and West to measure formal institution.

For the actual measure, we use the index developed by Fraser Institute. Although other indices such as the ICRG is also available, we use this indice, since ICRG is not publicly available. The Fraser Institute defines protection of property rights as how well assets and properties are protected by the government through enforcement of laws. The dimensions for protection of properties can be identified as 1) intangible – knowledge-based properties such as patent and intellectual property rights – 2) Tangible – tax, investment, and physical properties such as land and housing (Chang, 2011). In this research, our notion of property rights refer to both dimensions. The range of this indice goes from 0 to 10. Based on previous research, high scores are interpreted as countries with highly liberalized markets where government is constrained by law to intervene and expropriate private properties. While previous studies differentiate institution as *de jure* vs *de facto* (Melton & Ginsburg, 2014), we define formal institution as institution *de facto*, the practice and enforcement of *de jure*.

For other explanatory variable, informal institution, we use index of social trust. To measure trust, we use the variable Interpersonal Safety and Trust from the Indice of Social Development. It is a composite index, constructed using various data sources for generalized trust across countries, including the most common question whether "most people can be trusted. " The index, based on individual surveys, aggregates the individual scores per country. The range of indice is between 0 and 1. Empirically, various studies have used perception-based aggregated index of social trust to examine how social trust affects economic development (Beugelsdijk, De Groot & Van Schaik,

2004; Bjørnskov, 2012; Dearmon & Grier, 2009).

For the control variables, we apply following measures: Urban Population, education, inequality, and government consumption. Much literature has found that urban concentration and cities play important role in economic development (Henderson, 1991; Richardson, 1977). Through urban concentration, poverty is reduced (Sekkat, 2017), enhances growth (Brülhart & Sbergami, 2009), and can enhance productivity of overall economy (Rigg et al., 2009). For the actual data, this research uses the index from the World Development Index (WDI). The second control variable, education, has been widely used to promote economic development in various ways (Fortunato & Panizza, 2015; Hanushek & Woessmann, 2010). Not surprisingly, education enhances human capital, and enhances capacity to enforce laws (Klerman, 2006). For this research, we define measure of education as percent of population in country over 25 years old that has received primary education. For the actual data, we use the dataset developed by Barros and Lee. The third control variable, inequality, we use the gini index of inequality measured using market income for the household (pre-tax and pre-transfer income) from the Standardized World Income Inequality Database (SWIID). Finally, the fourth control variable, government consumption, also identified as government size, has also been used widely in models examining determinants for economic development. But in contrast to the previous two variables, existing literature appears divided on the direction government consumption affects economic development (Landau, 1983; Ram, 1986). Although the direction of effect remains ambivalent, we include this measure for its relevance. For the actual dataset, we use the measure from the World Development Indicator (WDI), using percent of GDP spent on government consumption. By government consumption, it includes salary of most government employees and the budget for state-related functions.

The tables 1.1 and 1.2 below are the summary of the descriptive statistics for all variables from 1995 to 2010. Table summarizes values for all samples, whereas the table 2 differentiates values for the West and East Asian states. For West, we selected countries based on countries considered , which has been used for various criterias. For example, Boix (1999) selects Australia, Austria, Belgium, Canada, Denmark, Finland, Grance, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom, and the United States as democracies. Similarly, Ginsburg (2012) also finds that Western Europe and North American countries have had stable systems based on democracies and law. Based on these studies, we include Western European and North American countries as samples for West. Our samples of West consist of all countries from Boix (1999) except Japan, and also adds few additional Western European countries: Malta and Cyprus.

In the Table 2, mean for the dependent variable, Income, is 10.55 for the West and 9.583 for the East Asian states. As for the explanatory variables, West scores higher mean for both informal and formal institutions. The mean for Trust is 0.58 for the West and 0.561 for the East Asian states. For formal institution, protection of property rights, bigger gap is observed, as the mean for Protection is 7.82 for the West and 5.74 for the East Asian states. For the control variables, West scores higher mean value for Government Consumption than the East Asian states, scoring 19.526 and 10.749, respectively. As for the urban population, West also scores higher at 77.686 compared to

Table 1.1. Descriptive Statistics for all samples

Variable	Obs	Mean	Std. Dev.	Min	Max
Income	116	10.366	0.591	8.284	11.427
Trust	116	0.576	0.055	0.464	0.704
Protection	116	7.431	1.48	3.134	9.444
Inequality	116	45.792	4.284	29.3	53.2
Gov't consumption	116	17.862	4.776	6.135	27.366
Education	116	10.054	1.588	4.624	13.183
Urban population	116	75.194	14.26	36.076	100

Notes: Income measured as the log value of Power Purchasing Parity. Inequality is measured as gini for market value.
Samples consist of all years from 1995 to 2010.

Table 1.2. Descriptive Statistics for regions/ groups

East Asian Miracle States (EA6)						West				
Variable	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
Income	22	9.583	0.891	8.284	11.186	94	10.55	0.271	9.964	11.427
Trust	22	0.561	0.066	0.464	0.704	94	0.58	0.052	0.48	0.701
Protection	22	5.744	1.798	3.134	8.974	94	7.826	1.071	4.834	9.444
Inequality	22	42.4	5.843	29.3	48.5	94	46.586	3.409	31.9	53.2
Gov't consumption	22	10.749	2.386	6.135	15.801	94	19.526	3.486	11.577	27.366
Education	22	8.65	1.931	4.624	12.052	94	10.382	1.305	6.692	13.183
Urban population	22	64.543	22.274	36.076	100	94	77.686	10.311	51.109	97.641

Notes: Income measured as the log value of Power Purchasing Parity. Inequality is measured as gini for market value.
Samples consist of all years from 1995 to 2010, with following regions/ groups.
EA6 = South Korea, Indonesia, Philippines, Malaysia, Singapore, Thailand.
West: Austria, Belgium, Denmark, New Zealand, Switzerland, France, Italy, Iceland, Netherlands, Finland, Cyprus, Portugal, Canada, Australia, Luxembourg, Ireland, Malta, Spain, Norway, Sweden, United States, Greece

64.543. Similarly, for the variable Education, West scores higher mean than East Asian states, 10.382 65 compared to 8.65.

RESULTS AND DISCUSSION

Empirical results

We begin with analysis of our baseline model, found in the table 2 below. In all four models, two-way fixed effects have been employed.

For the year-fixed effects, the reference year is 1995, with years for the comparison being 2000, 2005, and 2010. By applying country-fixed effects in all models, our analysis controls effects from time-invariant factors, such as regional characteristics, size of the land, and characteristics of different legal systems. For the model 1 and 2, the variable region is the six East Asian states, with the referece group being the Western states. The model 1 only consists of the main explanatory variables, without control and interaction variables. The model 2 adds the control and interaction variables to the model 1. For both models, the variable protection is significant and positive, which means the effect is positive for the Western states. On the other hand, the coefficients for the interaction variables – Trust x region and Protection x region – are negative, whereas the Trust x protection x region is positive. These results mean that the effects of trust and protection are negative for the six East Asian countries compared to Western states, wehreas the interaction between trust and protection for the six East Asian countries are positive compared to Western states.

Similar results are observed when we add Japan and China to the regional dummy variable for the models 3 and 4. Although level of statistical significance and the magnitude of coefficients slightly change, the direction of coefficients remain similar to the models 1 and 2. For the control variables, only government consumption in models 3 and 4 are significant and negative.

Since these results may be driven by influential observations, we conduct cook D's test to identify number of influential observations.[2] For the model with EA6, 13 out of 116 observations met the criteria, whereas for EA8, 10 out of 116 met the criteria. Therefore, we re-estimate the models excluding these observations, reported in Table 3. We observe that the effect has changed for West, as the coefficient for protection is no longer statistically significant. For East Asia, however, we do not observe much change, as the interaction variables remain intact in terms of the magnitude and statistical significance compared to the results from Table 3.

To test robustness of our results, additional analyses are conducted in table 4 using various other East Asian groups – East Asia as a region (EA),[3] East Asia without states ruled by communist parties (EA without communist states), East Asian democracies (EA Democracies),[4] and three IMF intervened states during the Asian Financial Crisis (IMF3).[5]

Like Tables 2 and 3, the coefficients differ by the level of significance and degree of magnitude, but the direction remains the same. The variable protection is significant and positive for the two out of the three models. Subsequently, the interaction effects –

---

[2] Cook D's test calculates influential observation if the observation is greater than 4/N.

[3] South Korea, Philippines, Malaysia, Indonesia, Thailand, Japan, China, Vietnam, Mongolia.

[4] South Korea, Philippines, Malaysia, Indonesia, Thailand, Japan.

[5] South Korea, Indonesia, Thailand.

Table 2. Main results for East Asian states

Covariates / regions	(1)	(2)	(3)	(4)
	EA6		EA8	
Trust	-0.240	0.871	-0.256	0.685
	(0.302)	(0.730)	(0.315)	(0.768)
Protection	0.0342***	0.120*	0.0439***	0.123*
	(0.0103)	(0.0647)	(0.0115)	(0.0646)
Trust x protection		-0.151		-0.155
		(0.103)		(0.103)
Trust x region		-2.781***		-2.424**
		(0.886)		(1.104)
Protection x region		-0.256**		-0.252**
		(0.110)		(0.110)
Trust x protection x region		0.481**		0.516***
		(0.202)		(0.178)
Inequality	0.00188	0.00234	0.0206	0.0168
	(0.00416)	(0.00402)	(0.0131)	(0.0109)
Gov't consumption	-0.00846	-0.0108	-0.0310**	-0.0319***
	(0.00916)	(0.00914)	(0.0123)	(0.0105)
Education	0.0168	0.0107	0.00143	-0.00224
	(0.0144)	(0.0133)	(0.0191)	(0.0149)
Urban population	0.00164	0.00223	0.0135	0.0130
	(0.00352)	(0.00391)	(0.00951)	(0.00821)
Constant	9.877***	9.562***	8.601***	8.666***
	(0.425)	(0.490)	(1.055)	(0.889)
Country fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Observations	116	116	124	124
R-squared	0.840	0.854	0.788	0.812
# of country	28	28	30	30

Notes: Country clustered standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.
EA6: South Korea, Philippines, Malaysia, Thailand, Indonesia, Singapore
EA8: EA6 + Japan + China Reference group for each region dummy is Western countries.
West: Austria, Belgium, Denmark, New Zealand, Switzerland, France, Italy, Iceland, Netherlands, Finland, Cyprus, Portugal, Canada, Australia, Luxembourg, Ireland, Malta, Spain, Norway, Sweden, United States, Greece.

Table 3. Estimation results for East Asian states after removing influential observations

Covariates / regions	(1)	(2)
	EA6	EA8
Trust	0.304	0.668
	(0.600)	(0.659)
Protection	0.0695	0.103
	(0.0515)	(0.0610)
Trust x protection	-0.0695	-0.109
	(0.0809)	(0.0936)
Trust x region	-1.615*	-2.423***
	(0.869)	(0.799)
Protection x region	-0.228*	-0.180**
	(0.112)	(0.0673)
Trust x protection x region	0.980***	0.287**
	(0.301)	(0.123)
Inequality	0.00363	0.00341
	(0.00408)	(0.00332)
Gov't consumption	-0.0184*	-0.0219**
	(0.00999)	(0.00956)
Education	0.00950	0.00151
	(0.0126)	(0.0133)
Urban population	0.00786	0.000885
	(0.00483)	(0.00305)
Constant	9.247***	9.968***
	(0.561)	(0.429)
Country fixed effect	Yes	Yes
Year fixed effect	Yes	Yes
Observations	103	114
R-squared	0.884	0.864
# of country	27	30

Country clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
EA6: South Korea, Philippines, Malaysia, Thailand, Indonesia, Singapore
EA8: EA6 + Japan + China
Reference group for each region dummy is Western countries.
West: Austria, Belgium, Denmark, New Zealand, Switzerland, France, Italy, Iceland, Netherlands, Finland, Cyprus, Portugal, Canada, Australia, Luxembourg, Ireland, Malta, Spain, Norway, Sweden, United States, Greece.

Table 4. Additional analysis for various East Asian groups

Covariates/ regions	(1)	(2)	(3)	(4)
	EA	EA without communist states	EA democracies	IMF3
Trust	0.863	0.982	0.821	0.574
	(0.797)	(0.715)	(0.691)	(0.701)
Protection	0.141**	0.132**	0.119*	0.0981
	(0.0663)	(0.0630)	(0.0616)	(0.0629)
Trust x protection	-0.182*	-0.166	-0.144	-0.113
	(0.106)	(0.100)	(0.0974)	(0.0983)
Trust x region	-2.533**	-2.603***	-2.853***	-5.628***
	(1.062)	(0.743)	(0.824)	(0.823)
Protection x region	-0.273**	-0.224***	-0.274***	-0.699***
	(0.104)	(0.0793)	(0.0974)	(0.0802)
Trust x protection x region	0.540***	0.394**	0.481**	1.347***
	(0.171)	(0.144)	(0.203)	(0.147)
Inequality	0.0163	0.00118	0.00161	0.00434
	(0.0109)	(0.00418)	(0.00377)	(0.00326)
Gov't consumption	-0.0343***	-0.0103	-0.0117	-0.0151
	(0.0104)	(0.00923)	(0.00941)	(0.0102)
Education	-0.000810	0.0152	0.0102	0.00668
	(0.0157)	(0.0146)	(0.0134)	(0.0111)
Urban population	0.0141*	-0.000816	0.00144	0.00411
	(0.00794)	(0.00424)	(0.00428)	(0.00335)
Constant	8.511***	9.735***	9.700***	9.704***
	(0.887)	(0.518)	(0.502)	(0.525)
Country fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Observations	129	121	116	104
R-squared	0.806	0.840	0.838	0.867
# of countries	33	30	28	25

notes: Country clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Reference group: West
EA: South Korea, Philippines, Malaysia, Indonesia, Singapore, Thailand, Japan, China, Vietnam, Mongolia.
EA without communist states: South Korea, Philippines, Malaysia, Indonesia, Singapore, Thailand, Japan.
EA democracies: South Korea, Philippines, Malaysia, Indonesia, Thailand, Japan.
IMF3: South Korea, Indonesia, Thailand.

Table 5. Robustness check with different measure of income

	(1)	(2)	(3)	(4)	(5)
Covariates/ regions	EA6	EA8	EA	EA dem	IMF3
Trust	0.871	0.685	0.863	0.821	0.574
	(0.730)	(0.768)	(0.797)	(0.691)	(0.701)
Protection	0.120*	0.123*	0.141**	0.119*	0.0981
	(0.0647)	(0.0646)	(0.0663)	(0.0616)	(0.0629)
Trust x protection	-0.151	-0.155	-0.182*	-0.144	-0.113
	(0.103)	(0.103)	(0.106)	(0.0974)	(0.0983)
Trust x region	-2.781***	-2.424**	-2.533**	-2.853***	-5.628***
	(0.886)	(1.104)	(1.062)	(0.824)	(0.823)
Protection x region	-0.256**	-0.252**	-0.273**	-0.274***	-0.699***
	(0.110)	(0.110)	(0.104)	(0.0974)	(0.0802)
Trust x protection x region	0.481**	0.516***	0.540***	0.481**	1.347***
	(0.202)	(0.178)	(0.171)	(0.203)	(0.147)
Inequality	0.00234	0.0168	0.0163	0.00161	0.00434
	(0.00402)	(0.0109)	(0.0109)	(0.00377)	(0.00326)
Gov't consumption	-0.0108	-0.0319***	-0.0343***	-0.0117	-0.0151
	(0.00914)	(0.0105)	(0.0104)	(0.00941)	(0.0102)
Education	0.0107	-0.00224	-0.000810	0.0102	0.00668
	(0.0133)	(0.0149)	(0.0157)	(0.0134)	(0.0111)
Urban population	0.00223	0.0130	0.0141*	0.00144	0.00411
	(0.00391)	(0.00821)	(0.00794)	(0.00428)	(0.00335)
Constant	9.562***	8.666***	8.511***	9.700***	9.704***
	(0.490)	(0.889)	(0.887)	(0.502)	(0.525)
Country fixed effect	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes
Observations	116	124	129	116	104
R-squared	0.854	0.812	0.806	0.838	0.867
# of countries	28	30	33	28	25

Notes: Country clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Reference group: West
EA: South Korea, Philippines, Malaysia, Indonesia, Thailand, Japan, China, Vietnam, Mongolia,
EA democracies: South Korea, Philippines, Malaysia, Indonesia, Thailand, Japan.
IMF3: South Korea, Indonesia, Thailand.
Income is the constant US dollars, 2010.

Trust x protection and Protection x region – are significant and negative, and the other interaction effect – Trust x protection x region – remains significant and positive across all three models. In sum, the robustness checks confirm our main results from Table 2.

Finally, as an additional robustness check, we analyse our models with different dependent variable. Rather than using income in terms of Power Purchasing Parity, we use income constant in U.S. dollars. The results are displayed in Table 5 below.

The results displayed in models 1 – 6 are consistent with results from previous results from Tables 3-5. Protection is significant and positive for most of the models, whereas Protection x region is significant and negative across all models. Trust is not significant, whereas Trust x region is significant and negative across all models. For Protection x Trust, one of the five models is significant and negative, whereas Protection x Trust x Region is significant and positive across all models. In sum, using different measure of income, our empirical results are consistent with main results.

Discussion

Our empirical analysis shows that for Western states, trust is insignificant across all models, whereas protection of property rights is significant and positive. For their interaction effect, it is not significant across most models. Based on Helmke and Levitsky (2004)'s framework, informal and formal institutions display an accommodating relationship for Western states. Such finding contrasts with results found from Chung & Kim (2021), where only social trust and its interaction with formal institution was significant, positive, and negative, respectively. For East Asian states, the main effects of informal and formal institutions are consistent with our theoretical expectation. Both informal and formal institutions are negatively associated with income for the East Asian states. Our results differ from Chung and Kim (2021), which found that for the Asian Paradox States, both informal and formal institutions were not significant.

The results obtained from interaction between informal and formal institutions differ from our theoretical expectation. Our hypothesis #2 expected a complementing interaction for Western states and competing interaction for the East Asian states. For Western states, the interaction variable is not significant, whereas for the East Asian states, the interaction is significant and positive, implying a complementing relationship. This implies that while trust and protection are negatively associated with income individually, when they interact, harvest positive effect on income. Although several possibilities exist, one possible explanation is the positive effect in the areas where liberalized market exists and is sustained through constraints imposed by civil society. Specifically, within an economy, not all areas of markets are government-led in East Asia. Before providing an example, a counterexample would be an example given by Roth (2009), where strong civil society may hamper growth by preventing labour reform needed to make the government more competitive in the global market. In implementing such policy, civil society, which consists of labour class, is likely to oppose, while businesses are likely to support. In this case, the interaction between informal and formal institution would be competing.

On the other hand, when both civil society and businesses collaborate, there would be a complementing effect. An example of this within East Asian context where

big businesses persist and thrive is labour regulations that exerts limitation of hours employees can work in each week. Both civil society and big businesses would agree to this; from the view of civil society, it preserves labour rights. From the view of big business, it is beneficial, because such policies drive foreign firms out. Thus, it is possible that cost of hiring more employees due to the regulation may be more beneficial than the cost incurred from competing against foreign companies.

Another example where civil society and big businesses may agree and collaborate in East Asia is response to foreign takeovers after the Asian Financial Crisis 1997-98. For example, in South Korea, after the IMF intervention, property markets were liberalized to international investors, and numerous financial institutions were available at a low cost, due to them defaulting during the crisis. In such circumstances, both civil society and big businesses opposed such takeovers.

CONCLUSION

This research has shown that due to different market mechanisms, informal and formal institutions, and their interactions, impose different effect on income for West and the East Asian states. Our empirical results are robust, as similar results are found when compared with similar country groups. These results are mostly consistent with our theoretical expectation that formal institutions would be positively associated with income for West, whereas for the East Asian states, both formal and informal institutions were negatively associated with income. Further, we note that the institutional dynamic in East Asia were not mutually exclusive, that is, in East Asia, the interaction between informal and formal institutions were not competing but rather complementing. These findings make important contribution to existing studies by capturing empirically how East Asia and West achieve economic development via different institutional mechanisms.

Despite such contribution, this research has several limitations that we hope to tackle in the near future. Firstly, the thereotical expectation for explaining the negative association between institutions (both informal and formal institutions) in East Asia can improve. Although we have provided several possible theoretical explanations based on prior research, we hope to develop a more original, suitable and meaningful explanation in the future.

Second, we hope to provide a better explanation for explaiing the interaction effect. The empirical results yielded an outcome contrary to our expectation, as the interaction between informal and formal institutions in East Asia displayed a complementing effect, whereas West displayed a competing effect. In the near future, we hope to provide a more theoretically grounded explanation to account for their differences. Despite these limitations, we believe that our contributions outweigh the limitations. once we solidify our theoretical framework, we hope to apply it towards other regions, such as Latin America, Africa, and Eastern and Central Europe.

REFERENCES

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2005. "Institutions as a fundamental cause of long-run growth." *Handbook of economic growth* 1 : 385-472.

Bernard, Mitchell. 1996. "States, social forces, and regions in historical time: toward a critical political economy of Eastern Asia." *Third World Quarterly* 17(4): 649-666.

Beugelsdijk, Sjoerd, Henri LF De Groot, and Anton BTM Van Schaik. 2004. "Trust and economic growth: a robustness analysis." *Oxford economic papers* 56(1): 118-134.

Bjørnskov, Christian. 2012. "How does social trust affect economic growth?." *Southern Economic Journal* 78(4): 1346-1368.

Boix, Carles. 1999. "Setting the rules of the game: the choice of electoral systems in advanced democracies." *American political science review* 93(3): 609-624.

Branstetter, Lee. 2017. "Intellectual property rights, innovation and development: Is Asia different?." *Millennial Asia* 8(1): 5-25.

Brülhart, Marius, and Federica Sbergami. 2009. "Agglomeration and growth: Cross-country evidence." *Journal of Urban Economics* 65(1): 48-63.

Chang, Ha-Joon. 2011. "Institutions and economic development: theory, policy and history." *Journal of institutional economics* 7(4): 473-498.

Chung, Kee Hoon, and DaEun Kim. 2021. "Explaining Asian growth paradox through interaction between informal and formal institutions." *Asian Education and Development Studies* 10(4): 600-614.

Chung, Kee Hoon, and Hyeok Yong Kwon. 2021. "Trust and the protection of property rights: evidence from global regions." *Public Choice* 189(3): 493-513.

Cooray, Arusha, and Friedrich Schneider. 2018. "Does corruption throw sand into or grease the wheels of financial sector development?." *Public Choice* 177(1): 111-133.

Cumings, Bruce. 1984. "The origins and development of the Northeast Asian political economy: industrial sectors, product cycles, and political consequences." *International Organization* 38(1): 1-40.

Dearmon, Jacob, and Kevin Grier. 2009. "Trust and development." *Journal of Economic Behavior & Organization* 71(2): 210-220.

Dixit, Avinash. 2009. "Governance institutions and economic activity." *American economic review* 99(1): 5-24.

Evans, Peter, and James E. Rauch. 1999. "Bureaucracy and growth: A cross-national analysis of the effects of" Weberian" state structures on economic growth." *American sociological review*: 748-765.

Fortunato, Piergiuseppe, and Ugo Panizza. 2015. "Democracy, education and the quality of government." *Journal of Economic Growth* 20(4): 333-363.

Francois, Patrick, and Jan Zabojnik. 2005. "Trust, social capital, and economic development." *Journal of the European Economic Association* 3(1): 51-94.

Ginsburg, Tom. 2012. "Courts and new democracies: recent works." *Law & Social Inquiry* 37(3): 720-742.

Greif, Avner. 2005. "Commitment, coercion, and markets: The nature and dynamics of institutions supporting exchange." In *Handbook of new institutional economics*, pp. 727-786. Springer, Boston, MA.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2011. "Civic capital as the missing link." *Handbook of social economics* 1: 417-480.

James Gwartney, Robert Lawson, Joshua Hall, and Ryan Murphy. 2022. *Economic Freedom of the World: 2022 Annual Report*. Fraser Institute.

Hadfield, Gillian K., and Barry R. Weingast. 2014. "Microfoundations of the Rule of Law." *Annual Review of Political Science* 17(1): 21-42.

Haggard, Stephan. 2004. "Institutions and growth in East Asia." *Studies in comparative international development* 38(4): 53-81.

Haggard, Stephan, Andrew MacIntyre, and Lydia Tiede. 2008. "The rule of law and economic development." *Annual Review of Political Science* 11: 205-234.

Haggard, Stephan, and Lydia Tiede. 2011. "The rule of law and economic growth: where are we?." *World development* 39(5): 673-685.

Hanushek, Eric A., and Ludger Woessmann. 2010. "Education and economic growth." *Economics of education* 60: 67.

Hayo, Bernd, and Stefan Voigt. 2007. "Explaining de facto judicial independence." *International Review of Law and Economics* 27(3): 269-290.

Helmke, Gretchen., and Steve Levitsky. 2004. "Informal institutions and comparative politics: a research agenda." *Perspective Politics* 2(4): 725–740.

Henderson, J. Vernon. 1991. "Urban development: Theory, fact, and illusion." *OUP Catalogue*.

Holmes Jr, R. Michael, Toyah Miller, Michael A. Hitt, and M. Paz Salmador. 2013. "The interrelationships among informal institutions, formal institutions, and inward foreign direct investment." *Journal of Management* 39(2): 531-566.

Horak, Sven, and Andreas Klein. 2016. "Persistence of informal social networks in East Asia: Evidence from South Korea." *Asia Pacific Journal of Management* 33(3): 673-694.

Kim, Sunhyuk. 2006. "Civil society and democratization in South Korea." In *Korean Society*, pp. 65-84. Routledge.

Klerman, Daniel M. 2006. "Legal infrastructure, judicial independence, and economic development." *Pac. McGeorge Global Bus. & Dev. LJ* 19: 427-434.

Kohli, Atul. 2004. *State-directed development: political power and industrialization in the global periphery*. Cambridge university press.

Kurtz, Marcus J., and Andrew Schrank. 2007. "Growth and governance: Models, measures, and mechanisms." *The Journal of Politics* 69(2): 538-554.

Landau, Daniel. 1983. "Government expenditure and economic growth: a cross-country study." *Southern economic journal*: 783-792.

Leftwich, Adrian, and Kunal Sen. 2010. "Beyond institutions: Institutions and organizations in the politics and economics of poverty reduction–Thematic synthesis of research evidence." *IPPG Research Consortium on Improving Institutions for Pro-Poor Growth, University of Manchester*.

Li, John Shuhe. 2003. "Relation-based versus rule-based governance: An explanation of the East Asian miracle and Asian crisis." *Review of international economics* 11(4): 651-673.

Li, Shaomin, and Jun Wu. 2010. "Why some countries thrive despite corruption: The role of trust in the corruption–efficiency relationship." *Review of International Political Economy* 17(1): 129-154.

Linzer, Drew A., and Jeffrey K. Staton. 2015. "A global measure of judicial independence, 1948–2012." *Journal of Law and Courts* 3(2): 223-256.

Méon, Pierre-Guillaume, and Khalid Sekkat. 2005. "Does corruption grease or sand the wheels of growth?." *Public choice* 122(1): 69-97.

Melton, James, and Tom Ginsburg. 2014. "Does de jure judicial independence really matter? A reevaluation of explanations for judicial independence." *Journal of Law and Courts* 2(2): 187-217.

North, Douglass, Daron Acemoglu, Francis Fukuyama, and Dani Rodrik. 2008. *Governance, growth, and development decision-making*. No. 44186. The World Bank.

North, Douglass C. 1990. *Institutions, institutional change and economic performance*. Cambridge university press.

Pejovich, Svetozar. 1999. "The Effects of the Interaction of Formal and Informal Institutions on Social Stability and Economic Development." *Journal of Markets and Morality* 2(2).

Putnam, Robert D. 2000. "Bowling Alone: America's Declining Social Capital." In *Culture and Politics*, pp. 223-234. Palgrave Macmillan, New York.

Putnam, Robert D., Robert Leonardi, and Rafaella Y. Nanetti. 1992. *Making democracy work: Civic traditions in modern Italy*. Princeton university press.

Qian, Yingyi, and Barry R. Weingast. 1997. "Federalism as a commitment to reserving market incentives." *Journal of Economic perspectives* 11(4): 83-92.

Ram, Rati. 1986. "Government size and economic growth: A new framework and some evidence from cross-section and time-series data." *The American economic review* 76(1): 191-203.

Richardson, Harry. 1977. *City size and national spatial strategies in developing countries*. The World Bank.

Rigg, Jonathan, Anthony Bebbington, Katherine V. Gough, Deborah F. Bryceson, Jytte Agergaard, Niels Fold, and Cecilia Tacoli.2009. "The World Development Report 2009 'reshapes economic geography': geographical reflections." *Transactions of the Institute of British Geographers* 34(2): 128-136.

Rodrik, Dani. 1994. *King kong meets godzilla: the World Bank and the East Asian Miracle*. No. 944. CEPR Discussion Papers, 1994.

Rodrik, Dani, Arvind Subramanian, and Francesco Trebbi. 2004. "Institutions rule: the primacy of institutions over geography and integration in economic development." *Journal of economic growth* 9(2): 131-165.

Roth, Felix. 2009. "Does Too Much Trust Hamper Economic Growth?." *Kyklos* 62(1): 103-128.

Sekkat, Khalid. 2017. "Urban concentration and poverty in developing countries." *Growth and Change* 48(3): 435-458.

Stubbs, Richard. 2017. *Rethinking Asia's economic miracle: The political economy of war, prosperity and crisis*. Bloomsbury Publishing.

Tsai, Kellee S. 2006. "Adaptive informal institutions and endogenous institutional change in China." *World Politics* 59(1): 116-141.

Uslaner, Eric M. 2002. "The moral foundations of trust." Cambridge University Press.

Wade, Robert. 1990. "Governing the market: Economic theory and the role of government in East Asian industrialization." Princeton University Press.

Wade, Robert. 1994. *Resolving the state-market dilemma in East Asia*. Advanced Development Management Program, Institute of Comparative Culture, Sophia University.

Whiteley, Paul F. 2000. "Economic growth and social capital." *Political studies* 48(3): 443-466.

Williamson, Claudia R. 2009. "Informal institutions rule: institutional arrangements and economic performance." *Public Choice* 139(3): 371-387.

Williamson, Claudia R., and Carrie B. Kerekes. 2011. "Securing private property: formal versus informal institutions." *The Journal of Law and Economics* 54(3): 537-572.

Woo-Cumings, Meredith. 1997. "Slouching toward the market: the politics of financial liberalization in South Korea." *Capital ungoverned: Liberalizing finance in interventionist states*: 57-91. Cornell University Press: Ithaca, NY.

Zhang, Chen, Rajah Rasiah, and Kee Cheok Cheong. 2019. *Governing corporate tax management*. Springer Singapore.

APPENDIX

A.1.1: Hausman Test Results (between fixed effect and random effect models).
The tested model is model 1 from Table 3.
Test: Ho: difference in coefficients not systematic

chi2(9) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 37.04
Prob>chi2 = 0.0000
(V_b-V_B is not positive definite)

A.1.2: F-test Results (between fixed effect and OLS)
The tested model is model 1 from Table 3.

F(27, 79) = 123.47
P-value: 0.00

Table A.2: Description of the Variables

Variable Name	Description and source
Income	Income is measured in terms of GDP per capita based on purchasing power parity (PPP). The data is in current international dollars based on 2011. The variable is scaled by applying logarithm *Source: World Development Indicator (https://data.worldbank.org/indicator)*
Protection of Property Rights (1 to 10)	This component is from the Global Competitiveness Report question: "Property rights, including over financial assets, are poorly defined and not protected by law or are clearly defined and well protected by law." *Source: Economic Freedom dataset (https://www.fraserinstitute.org/)*
Interpersonal Safety & Trust (0 to 1)	Measures personal security and trust using data on social trust from various surveys. Included in this measure are indicators of trust towards strangers and most people, whether people take advantage of you, and also, questions related to safety and security of individuals *Source: Indices of Social Development (http://www.indsocdev.org/)*
Government's final consumption expenditure (% of GDP)	General Government Final Consumption Expenditure includes all government current expenditures for purchase of goods and services. Also includes salary of employees and national defense and security, but excludes military expenditures related to government's capital formation. *Source: World Development Indicator (wdi.worldbank.org)*
Gini (%)	The estimate of gini index of inequality in equivalized (square root scale) household's market income (pre-tax and transfer). *Source: Standardized World Income Inequlity Database (https://fsolt.org/)*
School enrolment, primary (% gross)	Measures percentage of population in country over 25 years old that has received primary education. *Source: Barro-Lee (http://www.barrolee.com/)*
Urban Population (% of total)	% of urban population per country, people living in urban areas. *Source: World Development Indicator (wdi.worldbank.org)*

Table A.3. Description of the country groups

Group Name	Country Lists
West	Austria, Belgium, Denmark, New Zealand, Switzerland, France, Italy, Iceland, Netherlands, Finland, Cyprus, Portugal, Canada, Australia, Luxembourg, Ireland, Malta, Spain, Norway, Sweden, United States, Greece
EA6	South Korea, Malaysia, Thailand, Indonesia, Singapore, and Philippines
EA8	EA6, Japan and China
EA	EA8, Mongolia, Vietnam
New EA Democracies	Philippines, Malaysia, Thailand, South Korea, Indonesia
IMF3	Thailand, South Korea, Indonesia