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## Credible Commitment Institutions and Foreign Direct Investment: How Are Autocratic Countries Able to Attract FDI?

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CREDIBLE COMMITMENT INSTITUTIONS AND FOREIGN DIRECT INVESTMENT:  
HOW ARE AUTOCRATIC COUNTRIES ABLE TO ATTRACT FDI?

By  
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This dissertation is dedicated to God and my family: my parents who always have been my biggest supporters, my wife, Jieun, for her encouragement and willingness to support me during last six years since we first met, and to my two children, Heekwon (John) and Heejai (Noah), who are too young to know about the meaning of this dissertation, but will be proud of his father sometime in the future.

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I may omit someone who deserves to be here. But if there are, it would be just because of my memory.

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## **ABSTRACT**

My dissertation project examines the causes of FDI inflows in autocratic countries, attempting to answer the puzzle “Why do some autocratic countries attract more FDI inflows than others?” Given the credible commitment issue that FDI entails, institutions to protect property rights and enforce contracts are argued to be central mechanisms for attracting FDI inflows. This line of reasoning leads to the stylized conclusion that democracy has more advantages than autocracy in attracting FDI. However, we observe autocratic countries, such as China and Singapore, attracting huge amounts of FDI. This generates the puzzle. I focus on the role of domestic and international commitment institutions and how they affect FDI inflows in autocratic countries. I argue that autocratic regimes can attract FDI inflows by developing domestic commitment institutions particularly when they have long time horizons, and the credibility of the institutions is strengthened by political institutions such as autocratic legislatures and parties. I also contend that autocratic countries benefit by joining international commitment institutions such as bilateral investment treaties (BITs), but the effects of those international institutions on FDI inflows are modified by the strength of the domestic commitment institutions. Using a time-series cross-sectional design which covers autocratic countries from 1970 to 2008, I find evidence supporting the arguments. My conclusion is that market friendly and stable autocrats can attract considerable FDI inflows just as democratic countries are able to do.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Question

How do some autocratic countries attract more Foreign Direct Investment (FDI) than others? As the global economy has become more integrated, FDI has become more important over the last several decades. FDI has become particularly important to developing countries since it provides these states access to abundant foreign capital, advanced technologies, modern managerial skills, and new jobs, thereby contributing to the host economy's growth. Accordingly, scholars in political science have put considerable effort into studying the political circumstances under which foreign investments are more likely to be made. In this vein, one of stylized conclusions found in existing empirical research is that democratic countries have an advantage over autocratic countries in attracting FDI because they are better able to make credible commitments to foreign investors (Ahlquist 2006; Choi and Samy 2008; Feng 2001; Jensen 2003, 2006).

However, we observe that some autocratic countries attract huge amounts of FDI. Figure 1.1 presents the general pattern of FDI inflows among developing (i.e. non-OECD) countries for the last two decades. We can see that about half of the top 20 recipients are autocrats and the pattern is consistent over the two decades. Apparently, there are some autocratic countries which perform well in attracting FDI. This generates the central puzzle. If the credibility of the institution is the key to encourage FDI inflows, how are we able to explain the performance of these autocratic countries? Can autocratic countries credibly commit to protect foreign assets? If

so, what explains the credible commitment mechanism in autocratic countries? The variation of performance in autocratic countries is an interesting puzzle, both theoretically and empirically.

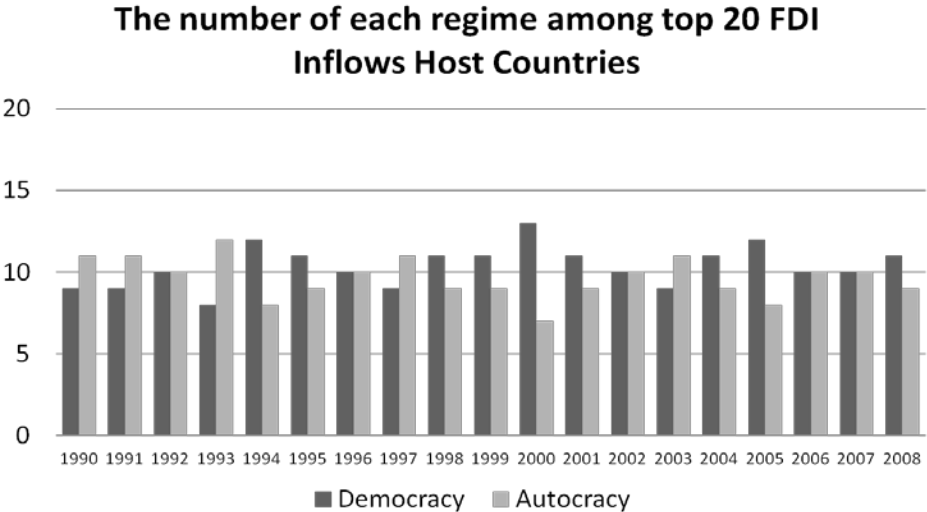


Figure 1.1 Top 20 non-OECD FDI host countries

**1.1.1 The Importance of FDI**

According to (UNCTAD 2009) foreign direct investment (FDI) is defined as “an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate).” FDI is made by Multinational Corporations (MNCs) who consist of parent enterprises and their foreign affiliates in host countries. FDI is distinguished from other types of investments (i.e. portfolio) as it entails direct control of parent enterprises over local affiliates. Usually the equity share of 10% or more is used as the threshold to define FDI. The amount of FDI can be measured in either stock or inflows. While FDI stocks means the total sum of FDI in a given country year, FDI inflows implies the amount of investment flowing to a host country in a given year.

The growth of FDI in recent decades has been remarkable. In particular, FDI inflows have extensively increased during the past 40 years. Figure 1.2 shows total amount of FDI inflows between 1970 and 2012 across different economies. In the beginning of the 1980s, world FDI inflows were about \$40 billion, however, they increased almost five times in following decade, reaching \$200 billion in 1990. This sharp expansion lasted until 2000 when FDI inflows reached its pick \$1.4 trillion. While investment activities shrank somewhat due to the global economic crises in the early 2000s and the 2008 recession, FDI inflows particularly to the developing world have substantively increased during the last decades.

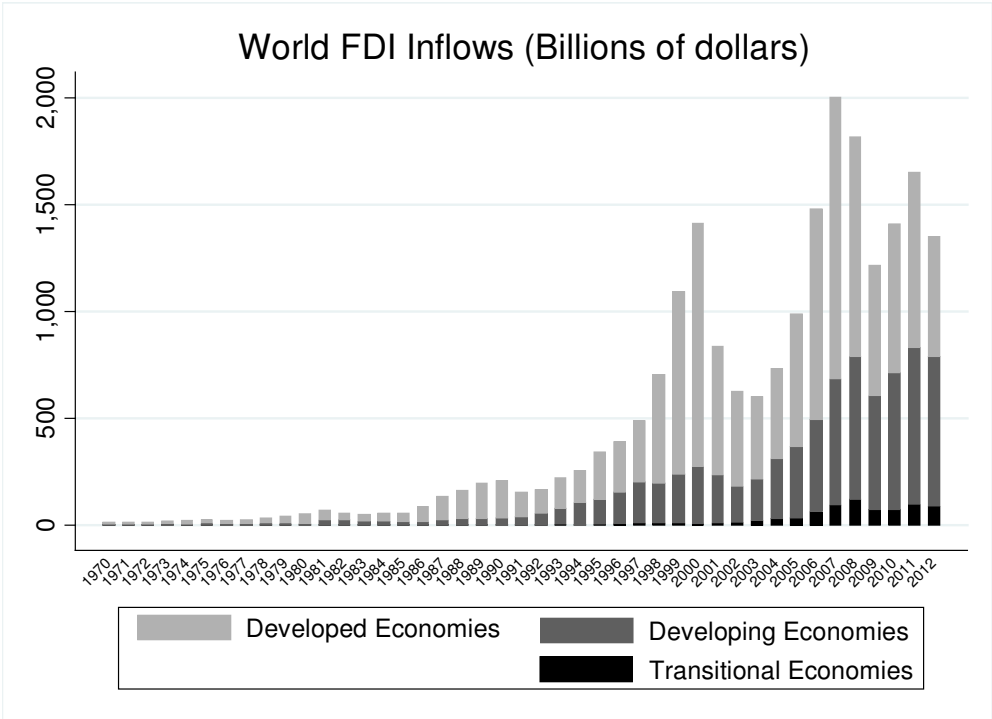


Figure 1.2 World FDI Inflows from 1970 to 2012

For the developing world, this sharp increase of FDI inflows implies having a better chance of accessing abundant foreign capital. Usually developing countries are not abundant in

capital. While capital is a vital factor to achieve long run economic development, developing countries have difficulty in supplying capital at the domestic level, given the scarcity of the resource. If used wisely, foreign capital can be as a vehicle of economic growth to the developing world. In this vein, a vast body of literature discusses the expected effects of FDI on the host country. FDI is usually argued to have a number of positive effects on host economies. These positive effects entail the creation of new jobs, technology and productivity spillovers, increase of local wages, and more competition in the local markets (Jain and Vachani 2006; Lipsey and Mucchielli 2001). There are also many studies examining the effects of FDI on economic growth (Alfaro, Chanda, Kalemli-Ozcan, and Sayek 2004; Balasubramanyam, Salisu, and Sapsford 1996; Blomstrom, Lipsey, and Zejan 1994; Borensztein, De Gregorio, and Lee 1998; Busse and Groizard 2008; Moran 2006; Romer 1993).

Thus, it is not surprising to recognize FDI as the largest source of external capital for developing countries, and scholars, policy makers, and international organizations view FDI as a vehicle of development.

### **1.1.2 FDI and Commitment Issue**

FDI is not risk free. FDI is usually made as a form of illiquid investment such as the foundation of new factories, technology transfers, job training, and operational control. Because of its illiquid nature, FDI is hard to retrieve once it is made and it exposes host countries to a commitment problem. No matter what the initial agreements are between host countries and MNCs, once the investments are made, host countries hold a dominant position because they can renege on the initial contracts. As the theory of the “obsolescing bargain” posits, MNCs are vulnerable to policy changes and expropriations by host countries (Kobrin 1979; Vernon 1971).

This implies that host countries suffer from a time-inconsistency problem. Since foreign investors know that host governments may face incentives to renege on the contract, the host government must credibly commit to foreign investors that they will protect the rights of those investors.

Therefore, it is not surprising that scholars have examined the role of commitment institutions and how they credibly signal to MNCs that their assets will be protected. While economists generally focus on conditions such as the level of development, market size, and economic growth, political scientists are generally concerned with the political circumstances by which foreign investments are treated, which include political predictability and stability (Brunetti, Kisunko, and Weder 1997; Henisz 2000; Jun and Singh 1996; Schneider and Frey 1985), domestic regime type (Ahlquist 2006; Choi and Samy 2008; Clague, Keefer, Knack, and Olson 1994; Feng 2001; Harms and Ursprung 2002; Jensen 2003, 2006; Li and Resnick 2003; O Neal 1994; Resnick 2001), and international investment institutions (Allee and Peinhardt 2011; Busse, Königer, and Nunnenkamp 2010; Büthe and Milner 2009; Egger and Pfaffermayr 2004; Haftel 2010; Kerner 2009; Neumayer and Spess 2005; Salacuse and Sullivan 2005). In this line of reasoning, recent empirical works converge on the stylized conclusion that democratic countries, on average, have an advantage in attracting FDI over autocratic countries as they are better able to make credible commitments (Ahlquist 2006; Choi and Samy 2008; Feng 2001; Jensen 2003, 2006).

However, we observe autocratic countries that attract huge amounts of FDI. As we saw in figure 1, there is a considerable variation among autocratic countries in terms of their ability to attract FDI. In fact, we are aware of some famous ‘outliers’ such as China and Singapore, which are not democratic but two of the world’s star FDI performers. One may argue that these

countries are no more than outliers accounting for the entire relationship between regime types and FDI. However, the performance of these countries has been steady for a considerable time and cannot be simply treated as outliers. Given that the credibility of the institution is the key to encourage FDI inflows, the observation generates an interesting puzzle.

## **1.2 The Argument**

In this project, I answer the puzzle by focusing on the various institutional devices autocratic countries have. While FDI is made by MNC for an economic purpose (i.e. seeking profits) the investment environment is shaped by the policies implemented by the host government. Thus, in order to understand the variation of FDI in autocracies, it is necessary to examine its institutional features. I focus on both the domestic and international institutions autocratic countries can develop, and in the following three essays I examine the role of domestic economic institutions, domestic political institutions, and international investment institutions, respectively.

In the first essay (chapter 2), I argue that some autocratic countries can develop credible property rights institutions in order to attract higher levels of FDI. Establishing property rights institutions is a direct way of attracting FDI as the institutions credibly commit to the protection of FDI. When a country makes a commitment to protect property rights it implies that the tangible and intangible (i.e. intellectual property rights) goods will not be arbitrarily seized by the state. However, autocratic leaders, on average, possess more political freedom in implementing policy than democratic leaders who are greatly constrained by other political actors. The dictator who makes an institution also can dismantle it easily. In addition, it is also questionable why autocratic leaders would want to implement a policy which may hinder their



rent-seeking behavior. Thus, the institutions must be self-enforcing. Following Olson (1993), I argue that insofar as the leader has a long time horizon, the government has an incentive to protect FDI as the cumulative profits of FDI exceed a short-term expropriation. Given this, I expect that autocratic countries where the leader's tenure is secure are more likely to develop property rights institutions, thereby increasing foreign investments.

In the second essay (chapter 3), I investigate how different political institutions in autocracies affect the investment decision of MNCs. It is well known that autocratic countries significantly differ in terms of political institutions, and scholars have examined the role of the legislature, parties, and elections in autocratic politics (Boix 2003; Gandhi and Przeworski 2006; Gandhi 2008; Geddes 1999; Gehlbach and Keefer 2011, 2012; Wright 2008a). I argue that autocracies with seemingly democratic institutions such as elected legislatures can attract more FDI inflows for following reasons. First, autocrats which rely on relatively large constituencies need to distribute more rents and accordingly have stronger preferences for foreign investment. Second, autocratic legislatures can increase the transparency of the policy making process accordingly reducing the transaction costs for MNCs. And finally, these institutions can play the role of veto players in autocracies, allowing MNCs to expect more stable investment environments which are less prone to change. Based on the last insight, I further argue that the effects of the political institutions are conditioned on the quality of other commitment institutions such as property rights institutions.

In the last essay (chapter 4), I examine the effects of joining international investment institutions, particularly Bilateral Investment Treaties (BITs). I propose two competing hypotheses. On the one hand, domestic and international commitment institutions are expected to have substitutive effects on FDI inflows. Countries with weak domestic institutions may want to

rely on international commitment devices to attract more foreign investment. Given the lack of strong domestic commitment institutions, the role of international commitment institutions will be more important to foreign investors. This leads us to expect that the effects of international institutions are greater when domestic institutions are weak. On the other hand, domestic institutions can further strengthen the effects of international institutions. Considering the significant noncompliance costs (i.e. going to an international arbitration panel) countries that weak domestic institution may face, countries with strong domestic institutions have greater incentives to enter international institutions, thereby further encouraging FDI inflows. In addition, foreign investors may also prefer 'hassle-free' partners. Even if there are two potential host countries which sign the same number of BITs, foreign investors will be more likely to choose the host with stronger domestic commitment institutions.

# CHAPTER TWO<sup>1</sup>

## FOREIGN DIRECT INVESTMENT, COMMITMENT INSTITUTIONS, AND TIME HORIZON

### 2.1 Introduction

In this chapter, I seek the conditions which explain variation in autocrats' ability to attract FDI, by focusing on autocrats' time horizons and the domestic commitment institutions they can develop. While FDI is made by MNCs for an economic purpose (i.e. seeking profits) the investment environment is shaped by the policies implemented by the host government. I argue that autocrats with long time horizons can provide stronger institutions that better protect property rights allowing them to attract more FDI inflows than other autocratic countries. Institutions providing secure property rights are fundamental elements for attracting foreign investors. Autocrats with long time horizons are more able to develop institutions as they expect long term benefits from foreign investments. Using an error correction models covering all autocratic countries from 1970 to 2008, I find evidence that 1) autocratic countries with long time horizons are more likely to develop property rights institutions and 2) autocratic countries with stronger property rights institutions attract more FDI than other autocratic countries.

The next section outlines existing arguments in the broader literature about the determinants of FDI inflows, focusing on the role of commitment institutions to address the time-inconsistency problem foreign investment entails. Then I will detail the conditions under which institutions are developed and FDI inflows are encouraged in autocratic countries. The empirical analysis follows consisting of two parts which estimate the determinants of domestic

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<sup>1</sup> Forthcoming at International Studies Quarterly

institutions and FDI inflows, respectively. The last section concludes by discussing the implication of my findings and contributions.

## **2.2 Commitment Problem**

Scholars study various conditions under which host country governments can address the commitment problem, thereby reassuring foreign investors that their countries are secure places to invest. In particular, this approach entails the role of domestic institutional features which provide a protection mechanism for foreign assets.<sup>2</sup> However, while considerable FDI literature has examined the political determinants of FDI inflows, there are no studies looking at variation among autocracies. Instead, most of existing studies generally approach the answer with a focus on democracies.<sup>3</sup> While early literature posited that MNCs are likely to invest in authoritarian regimes (Clague, Keefer, Knack, and Olson 1994; Haggard 1990), more recent empirical studies tend to support the argument that democracy is better at attracting FDI inflows due to its institutional features (Ahlquist 2006; Choi and Samy 2008; Feng 2001; Jensen 2003).<sup>4</sup> While these explanations help us better understand the political determinants of FDI inflows, the literature fails to distinguish between broad concept of regime type and key institutional features which affect MNCs' decisions directly.

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<sup>2</sup> My main concern here is the domestic conditions which influence FDI inflows. For international commitment mechanism, see Büthe and Milner 2008, 2009; Neumayer and Spess 2005; Tobin and Rose-Ackerman 2005 among others.

<sup>3</sup> A good exception is Henisz (2000) who examines the effect of domestic veto players on the amount of FDI inflows. Building on the idea that veto power generally constrains policy changes (Tsebelis 1995), he posits that veto players reduce future political uncertainty; thus, the greater the number of veto players, the greater FDI inflows. Other general approaches include the effects of political instability and violence (Jun 1996, and Brunetti 1997; Schneider 1985).

<sup>4</sup> Among others, Jensen (2003) explains the mechanisms are twofold. First, democracy has more veto players (Henisz 2000; Tsebelis 1995), thereby leading democracy to higher levels of credibility. Second, the credibility of democracy can be found in the 'audience costs' literature (i.e. Fearon 1994). That is, because of the political constraints democratic government face, they may suffer from electoral costs if they renege on initial contracts made with MNCs. Thus, these negative domestic costs deter democratic governments from engaging in anti-market friendly behaviors.

A notable exception is Li and Resnick (2003) who present a rather different explanation. They do not see democratic countries necessarily having advantages over autocratic countries in attracting FDI. Instead, they contend that democracy has mixed effects on FDI inflows. On the one hand, democratic countries may not be favored by MNCs because elected representatives work for their own constituencies, so they have a competitive interest to prevent monopolistic or oligopolistic positions from occurring. On the other hand, democratic countries are better at addressing the commitment problem with strong property rights. Specifically, Li and Resnick contend that “lasting democracy inherently implies secure property rights, because the same institutional mechanisms such as limited executive, the independent judiciary, and respect for law that are needed for the survival of democracy also imply secure private property rights” (Li and Resnick 2003, 187). This approach is novel in that they attempt to separate out the logic of commitment institutions from the broader concept of democratic (or autocratic) regime.

Considering the core logic of the existing literature centers on the function of credible institutions which address the commitment problem FDI inherently entails, Li and Resnick’s insight to parse out certain institutional features from regime type was correct. That is, the central mechanism to attract FDI inflows is not democracy *per se* but specific institutional features democratic governments may have. This provides a significant implication for the possibility that autocratic countries can address the commitment problem; insofar as host countries have institutions by which foreign property is protected, FDI inflows can be enhanced even in autocratic regimes. In order to examine the effects of institutions on FDI inflows among autocrats, several discussions must be made. First, from the MNC’s view, their investment decision is more likely to be made based on the host country’s commitment institutions. Thus, it is appropriate to ask under what conditions autocrats should provide domestic commitment

institutions to protect foreign assets. However, institutions are products of domestic politics, and autocratic countries may be able to develop institutions under certain political conditions. This raises the need for discussing autocratic governments' expected costs and benefits from developing commitment institutions and ultimately the effect of the institutions on FDI inflows. In the next section, I discuss how autocrats with long time horizons can address these problems.

### **2.3 Commitment Institutions and FDI Inflows in Autocratic Countries**

Economic performance is important as a means of political survival not only through increasing the potential benefits from rent-seeking, but also by satisfying domestic demands and boosting public support.<sup>5</sup> Expecting economic benefits from FDI inflows, autocrats would have a greater chance of remaining in office by enlarging the size of the economy and increasing government revenues.<sup>6</sup> Yet, this is not to say that all of autocrats can attract foreign capital, regardless of their political conditions.<sup>7</sup> Foreign investors decide when and where to invest. Even if host governments have a strong motivation to attract foreign assets, they need to reassure foreign capital owners their assets will be protected. Hence, providing institutions that promote credibility is necessary to attract FDI. Among such institutions, property rights and contract enforcement are of primary importance. Property rights are “the rights individuals appropriate over their own labor and the goods and services they possess” (North 1990, 33). When a country makes a commitment to protect property rights it implies that the tangible and intangible (i.e.

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<sup>5</sup> This sometimes becomes an important formal justification of political revolution and coup. For example, when Park Jung-Hee mounted a military coup in South Korea 1961, he justified the coup by promising to build a strong autonomous national economy.

<sup>6</sup> The tax revenue from MNCs in China, for example, accounted for 4.3% of total industrial and commercial business taxes in 1991, but had risen to 15% by 1999 (Ministry of Commerce (<http://english.mofcom.gov.cn>)).

<sup>7</sup> For the simplicity of the argument, I assume a government is a unitary actor and do not distinguish autocrats from autocratic governments, but use the two words interchangeably.

intellectual property rights) goods will not be arbitrarily seized by the state. Contract enforcement is equally important. Even if property rights are given, the promise will not be credible unless they are legally enforced. Given the illiquidity of FDI, securing property rights and the existence of legally binding enforcement mechanisms are more important to MNCs than other types of investors.

Who then can provide strong property rights institutions? Scholars generally argue that democratic institutions and property rights are associated. It is usually assumed that democratic countries have inherent advantages in protecting property rights over autocratic countries (Bueno de\_Mesquita, Smith, Siverson, and Morrow 2003; Clague, Keefer, Knack, and Olson 1996; North and Weingast 1989; North 1981; Olson 2000).<sup>8</sup> However, even if democratic countries on average have strong property rights institutions, countries with strong institutions are not necessarily democratic. Autocratic countries also can develop domestic institutions to protect property rights which allow them to attract more foreign investments.

It has been broadly studied and found that autocrats show diversity in terms of their political structures and economic performances (Bueno de\_Mesquita, Smith, Siverson, and Morrow 2003; Wright 2008a), and the quality of property rights institutions shows a similar pattern. In figure 2.1, I present a box plot examining the distributions of property rights institutions for each regime type. In order to capture the level of property rights, I employ contract intensive money (CIM) on the Y axis.<sup>9</sup> The X axis represents a regime type based on Przeworski, Alvarez, Cheibub, and Limongi (2000).<sup>10</sup> As the conventional wisdom posits,

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<sup>8</sup> Przeworski and Limongi (1993) is a notable exception to this argument. They argue that democratic institutions empower the redistributive demand of the majority poor, thereby threatening the property rights of rich elites through distributional policies.

<sup>9</sup> Sample covers developing countries from 1970 to 2008. CIM is designed by World Bank scholars (Clague, Keefer, Knack, and Olson 1999). CIM is an objective measure of property rights and legal enforceability, which ranges from zero to one. I will explain the measurement in more detail in the empirical section.

<sup>10</sup> This is a dichotomous measure of democracy. The criterion by which they define democracy vs. autocracy is

democratic countries generally have stronger institutions than autocracies. The mean value of CIM in autocratic countries is 0.74 while in democratic countries it is 0.82. However, it is worth noting that we can observe a greater variation within autocrats. The standard deviation of CIM in autocratic countries is 0.162 as opposed to 0.135 in democracies. Clearly, there is variation among autocracies and some have property rights institutions comparable to democratic countries.<sup>11</sup>

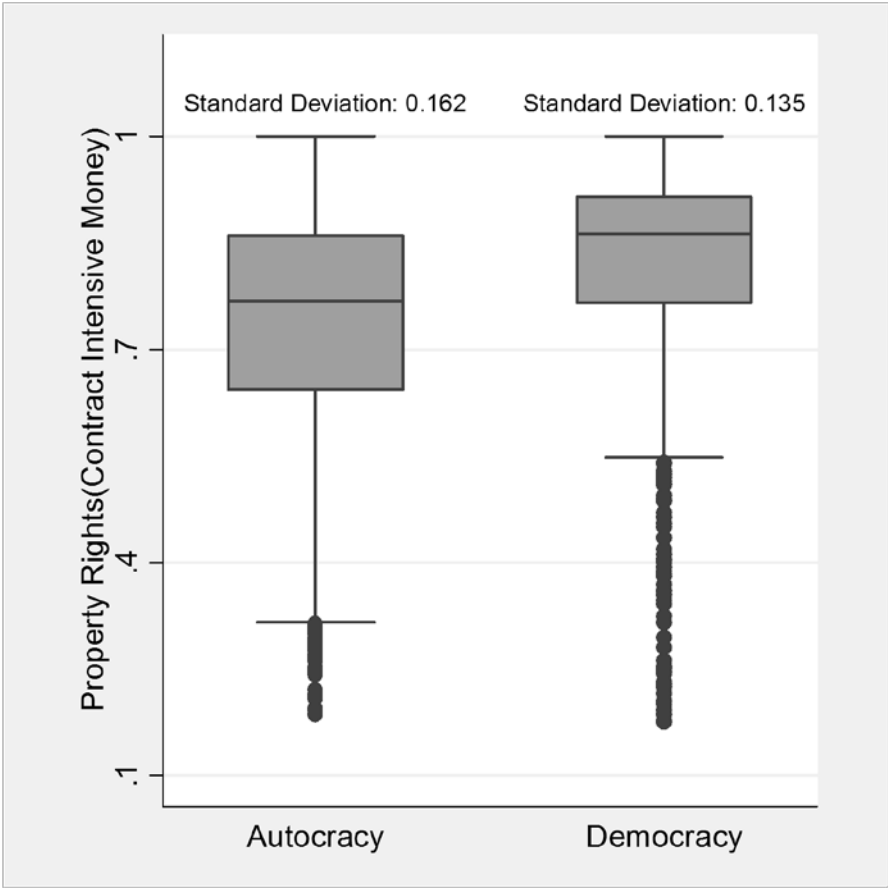


Figure 2.1 Distribution of Property Rights over Regime type

These observations lead naturally to the question of what accounts for this variation. Assessing autocrats’ time horizons provides an appropriate tool to explain the variation of

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discussed in the research design section.  
<sup>11</sup> The difference of means across regime type is statistically significant.



institutions and thus, ultimately FDI inflows. By time horizons, I mean autocrats' expectations regarding their job security. This does not simply mean the length of past tenure autocrats have had. Rather than retrospective, time horizons are forward-looking and more concerned with future tenure. That is, time horizons can be understood as a proxy of the probability they will remain in power. Previous study explains how time horizons shape autocrats' interests, political performances and, incentives to develop institutions. In his seminal work, Olson (1993) presents the concept of a 'stationary bandit' such that autocrats who expect to reap revenues for a long time have an incentive not to predate on their subjects but instead to limit taxation and protect their properties. This stationary bandit is in sharp contrast to the 'roving bandit' who does not have a long time horizon, and accordingly engages in more immediate taxation and predatory behavior, thereby reducing the incentives of private sectors to make long term investments. Building on this idea, Olson and his colleagues suggest "Any incentive an autocrat has to respect such (*property*) rights comes from his interest in future tax collections and national income and increases with his planning horizon" (Clague, Keefer, Knack, and Olson 1996, 243). Wright (2008b) employs the same idea to examine the conditions under which foreign aid is effective for recipient countries. He argues that recipient governments which expect long time horizons are less likely to engage in predatory behaviors and rent seeking, but instead have an incentive to allocate foreign aid for making investments and providing public goods, so that they can reap long-term benefits from economic development.

Autocrats' time horizons also raise important implications with regard to their efforts to attract FDI inflows. FDI inflows can boost the host economy by technological innovation, creating jobs paying higher wages, transferring marketing skills, and increasing tax revenues to host governments. Yet, these economic gains cannot be achieved in the very short-term. When it

comes to comparing short term gains from expropriating foreign assets with cumulative economic returns resulting from long-term investments, autocrats will rationally lean on the latter scenario as their expected time horizons lengthen. Autocrats with long time horizons are likely to provide institutions, which better protect FDI. In addition, autocrats with long time horizons have several advantages in addressing problems which may hinder FDI inflows. Some autocratic countries may be concerned with the negative consequences FDI inflows may produce. For instance, economic liberalization may lead to the strengthening of domestic demand for political liberalization. This positive correlation between economic development and democratization has been a stylized fact in comparative politics and been heavily discussed among scholars (Boix and Stokes 2003; Boix 2003; Inglehart and Welzel 2005; Lipset 1959; Moore 1966). If providing domestic institutions and attracting FDI inflows jeopardize the fate of the regime, autocratic governments would have no reason to attract FDI inflows from the beginning. However, several works question this conventional wisdom and posit economic development does not necessarily lead to democratization (Kennedy 2010; Miller 2012; Przeworski and Limongi 1993; Przeworski, Alvarez, Cheibub, and Limongi 2000). In particular, recent scholarship focuses on the possibility that not only does economic prosperity shift the preferences of the domestic population to democratization but the same prosperity consolidates the stability of the existing regime (Miller 2012, 3). That is, economic prosperity is not a sufficient condition for democratization as political elites can now access more resources by which they can thwart domestic actors from challenging their authority.<sup>12</sup> Miller, for instance, argues that domestic preferences for democratization can trigger regime transition only when

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<sup>12</sup> According to Bueno de Mesquita and Downs (2005,5), there are a number of autocratic countries which have benefited from economic liberalization while maintaining their autocratic political systems for the past fifty years. They argue that some autocratic governments can weaken the coordination of domestic opposition parties which consist of the middle classes which have emerged with economic development.

there is an opening. His empirical results clearly show that development leads to democratization only when an autocracy is exposed to political vulnerability such as the violent removal of a leader. In line with this research, I argue that autocratic countries with long time horizons have a relative advantage in seeking FDI. Even though autocrats may have a preference for foreign capital, the decision of providing stronger institutions to attract FDI could be available only for those with better job security, namely long time horizons. When autocrats see their power secure enough and thus have confidence in maintaining their regime, they are more likely to implement liberal economic policies and benefit from FDI inflows, while minimizing the concern of democratization.<sup>13</sup>

Lastly, autocrats with long time horizons are also better at addressing another fundamental issue from which they might suffer. Autocrats wield considerable political power and enjoy the high level of policy freedom by which they can develop new institutions. The lack of checks on their power means autocrats are able to respond to any requests flexibly by establishing new institutions easily, but at the same time this political autonomy can also dismantle institutions easily. Thus, autocratic institutions are, on average, likely to suffer from credibility issues. As Weingast (1993, 287) notes, “The fundamental economic dilemma of a political system is this: a government that is strong enough to protect property and enforce contracts is also strong enough to confiscate the wealth of its citizens.” Autocrats with long time horizons can overcome this credibility issue by reaching an equilibrium from which neither the autocratic host government nor the MNC wants to deviate. As economic gains cumulate and

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<sup>13</sup> China is a good example of this logic. Since the 1980s, China has grown rapidly, recording double digit GDP growth rates. The size of FDI inflows was just \$80,000 in 1979, yet it jumped to \$1.66 billion in 1985 and reached \$36 billion in 1995 (World Bank 2008). However, political authority has not been weakened over 30 years, and no signs of regime change have been observed. On the contrary, they have successfully repressed domestic challenges such as Tiananmen Square protests and effectively control political activity.

these cumulative benefits outweigh the short term gains resulting from expropriation, host governments find little reason to engage in predatory behavior. The shadow of a long future makes autocrats forgo short terms expropriation incentives and helps them engage in productive policies, so that they can reap the benefits of a larger economic pie in the future. MNCs also benefit from making investments in autocratic countries with long time horizons. Expecting that this type of autocrat will provide protection for their assets, MNCs are more likely to re-invest their economic returns and increase the size of economic activities. Together, this will generate bigger sources of economic outcomes to host governments and further strengthens the incentive to provide credible commitment institutions. Neither side wants to deviate from this equilibrium status, therefore, the institutions can be self-enforcing through interactions between autocratic countries and MNCs.

In sum, autocrats with long time horizons can address a number of issues which hinder FDI inflows. They can develop better property rights institutions and these institutions can credibly protect foreign assets insofar as they have long time horizons. This explains how some autocratic countries can attract more FDI inflows than others. From the above discussion, I draw the following testable hypotheses:

*H1. Autocrats with long time horizons are likely to develop stronger property rights institutions.*

*H2. Autocrats with better property rights institutions are likely to attract more FDI inflows.*

## **2.4 Research Design**

I employ a time series cross sectional (TSCS) design which enables us to infer the effect of independent variables over time and across countries. The temporal domain of the analysis is

from 1970 up to 2008 and the spatial domain includes up to 108 autocratic countries. Some of estimations have a limited sample (i.e. 1970 to 2003) due to data availability. The unit of analysis is the autocratic country year based on Przeworski, Alvarez, Cheibub, and Limongi (2000), which is updated by Cheibub, Gandhi, and Vreeland (2010).<sup>14</sup> According to them, democracies are regimes in which governmental officers are selected by contested elections (Przeworski, Alvarez, Cheibub, and Limongi 2000, 15) A country is coded as an autocracy if one of following conditions hold: 1) the chief executive is not elected; 2) the legislature is not elected; 3) there is no more than one party; or 4) there is no real possibility for the opposition to win (e.g. alternation in power has not occurred).

As an estimation technique, I use error correction models (De Boef and Keele 2008; De Boef 2001). This approach enables us to infer both the short and long term effects of independent variables on dependent variables and tests whether the results are logically consistent with the theory. For example, the effects of institutions on FDI inflows may not be captured immediately but can be revealed with time intervals since the credibility of institutions are dependent upon long term cumulative benefits. This same dynamic is also likely for most economic determinants of FDI inflows. Better economic conditions encourage more FDI inflows overall, however we do not expect that economic conditions at time  $t$  have immediate effects during the same time period. Economic conditions such as the accumulation of capital, the development of markets, and indirect economic outcomes from employment are likely to affect FDI inflows over some time intervals.

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<sup>14</sup> One concern with using autocratic country year as a unit of analysis is the presence of countries which experienced multiple regime transitions lasting for very short time periods. These countries are problematic for we are not sure whether the institutions observed in certain autocratic years are the product of previous democratic experiences. In order to account for this possibility, I tested adding a dummy variable capturing past democratic experiences. However, it does not affect any of the main findings reported in the next section.

Methodologically, ECM is also appropriate for handling the issue of nonstationary trending series, which are problematic since they may generate spurious correlations between independent and dependent variables when they are both affected by time trending. ECM can be used with nonstationary as well as stationary time series and performs a more conservative test (De Boef and Keele 2008).<sup>15</sup> The general form of single equation ECM is as follows.

$$\Delta Y = \alpha + \beta_0 \Delta X + \beta_1 Y_{t-1} + \beta_2 X_{t-1} + \varepsilon$$

This model specifies that the change in Y is a function of the change in X and an error correction component which adjusts the equilibrium status.  $\beta_0$  estimates the size of the short term effect of X on Y, and  $\beta_1$  captures the speed of return to equilibrium after a deviation between X and Y. Both  $\beta_1$  and  $\beta_2$  are the main components of the long-run multiplier (LRM), the total effects of X on Y. LRM is captured by  $-\beta_2/\beta_1$ , which spreads over future time periods at a rate of  $\beta_1$ . The empirical section consists of two parts. I first test whether autocrats' time horizons are associated with property rights institutions, and the second test examines the effect of institutions on FDI inflows.<sup>16</sup>

## 2.5 Empirical Results

In the first estimation, my dependent variable is institutional quality and the key independent variable is time horizon. Using ECM, the first hypothesis is tested using the following model.

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<sup>15</sup> De Boef and Keele (2008) show that ECM is equivalent to an autoregressive distributive lag (ADL) model which has a stationary condition. I carried out a Dickey Fuller unit root test on each country-level time series and found that the overall results reject the null hypothesis that the time series are stationary.

<sup>16</sup> With respect to this approach, one concern is the possibility of spurious correlation between institutions and FDI if time horizons affect both institutions and FDI. I attempt to minimize this possibility by including time horizons in the second estimation, so that I can empirically identify if time horizons affect FDI directly and if the effect of institutions on is spurious. Please see the appendix for the result.

$$\Delta \text{Institutions} = \alpha + \beta_0 \Delta \text{Time Horizon} + \beta_1 \text{Institutions}_{t-1} + \beta_2 \text{Time Horizon}_{t-1} + \text{controls} + \varepsilon$$

In order to measure the level of institutional quality, I use Contract Intensive Money (CIM) designed by (Clague, Keefer, Knack, and Olson 1994, 1996, 1999). CIM is an objective measure of property rights developed by World Bank scholars. Formally, CIM measures the ratio of non-currency money to the total money supply. The logic of this measure is "the characteristics of third-party contract enforcement in countries are likely to explain much of the difference in firm and individual preferences governing the choice of money to use if contracts are generally unreliable, there can be no assurance that the money lent to financial institutions is safe" (Clague, Keefer, Knack, and Olson 1999, 188). Thus, CIM is an indicator of the degree of contract enforcement provided by a third party (i.e. government) as well as general confidence in protecting property rights. CIM has become a well-known measure of property rights in international political economy literature (Ahlquist and Prakash 2008; Souva, Smith, and Rowan 2008) and because of its legal element (e.g. contract enforcement), comparative judicial studies use CIM as a measure of judicial strength (Powell and Staton 2009; Rios-Figueroa and Staton 2009).<sup>17</sup> Furthermore since it is an objective measure, CIM is applicable regardless of temporal and spatial domain, while suffering less from potential subjective biases resulting from arbitrary scoring or personal surveys; which are measured *ex post*, and thus, could be positively biased toward countries with higher foreign inflows. CIM also enjoys considerable data coverage and is available for the most countries and the longest time domain.

Formally, CIM is calculated by (M2-C)/M2 where M2 means money supply and C is currency held outside banks. The measure varies from zero, which indicates that no money is

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<sup>17</sup> CIM is used as a de facto measure of judicial independence, assuming that on average states which possess judicial institutions which protect property rights are likely to protect rights generally. See Rios Figueroa and Staton (2009) and Powell and Staton (2009) for detailed discussions.

held in banks to one, indicating that no money is held outside of banks. The original measures of M2 and C come from the IMF. As a robustness check, I also use a property rights index from the International Country Risk Guide (ICRG)(PRS 2011). ICRG is a commonly used measure of institutional quality (Allee and Peinhardt 2011; Jakobsen and De Soysa 2006; Li and Resnick 2003), based on expert surveys. The temporal and spatial domain is significantly limited compared to CIM, but useful as a robustness test as two measures are significantly correlated (see appendix).<sup>18</sup> ICRG index ranges from zero to 40, where higher number implies better institutional quality.

The key independent variable is *Time Horizon*. While measuring leaders' time horizons is a difficult task, the most commonly used measure is duration of leader tenure. For example, Clague, Keefer, Knack, and Olson (1996) and Li (2009a) simply count the duration of leader tenure, which presumes that all autocrats have the same time horizons in the first year and the longer the leader has survived, the longer she/he can expect to stay in office. However, to assume all autocrats with the same time in office will have the same time horizons, disregarding all domestic conditions and institutional arrangements is problematic. As Wright (2008b, 980) notes, it is hard to say that a military regime which rules less than 2 years would expect the same time horizon as a dictator being supported by strong unions. Furthermore, long tenured leaders do not necessarily see their remaining tenure positively. According to the previous logic, the time horizon of a leader who has ruled for 30 years would be longer than that of the leader ruling for 10 years. Yet a leader who has stayed in office for a long time may see her/his remaining tenure as short. It is hard to justify that the length of past tenure is proportionally associated with expectations of the future at all stages. Therefore, a more appropriate approach would be to infer

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<sup>18</sup> ICRG index consists of government stability, law and order, corruption, and bureaucratic quality. In my estimations, more than 40% of observations are dropped when using ICRG, compared with the estimation using CIM.



the length of time horizon based on the calculation of domestic politics. Following Wright (2008b), I take an alternative approach which is to estimate a predicted value of time horizon for each country-year. This strategy has an advantage over the simple tenure duration measure, as “it captures variation between different authoritarian regimes within a particular authoritarian spell; and it does not assume that all authoritarian leaders, no matter their type, face the same time horizon at the same age of the regime” (Wright 2008b, 980). In order to capture the time horizons of autocrats, he calculates the predicted probability of regime failure using a logit model which regresses regime failure on a country’s personal income, growth rate, share of the Islamic population, the existence of a civil war or foreign occupation, indicators of regime type, and time splines to control for duration dependence. Since the variable *Time Horizon* measures the likelihood of regime failure, low values imply that autocrats expect to have longer time horizons.<sup>19</sup>

I include a number of control variables which may affect property rights institutions. I control for market size (logged population), interest rates, the level of economic development (GDP per capita), government consumption (ratio to GDP), political instability, and oil rents (ratio to GDP). All variables come from World Bank’s World Development Indicators while the population variable is taken from the Penn World Table (Heston, Summers, and Aten 2011) and political instability uses a conflict index from Banks (2011), which measures political violent events including general strikes, guerrilla warfare, government crises, purges, riots, revolutions, and anti-government demonstrations.

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<sup>19</sup> I appreciate Wright generously sharing his measure of time horizon. Please see Wright (2008b) for a detailed discussion of the variable. Since I use an estimated measure of *Time Horizon*, I also bootstrapped each main model (e.g. model 1, 3, and 5) to correct the standard errors. The main findings are essentially the same as the report ones. Please see the appendix for the bootstrapped results.

Table 2.1 Time Horizon to Property Rights Institutions

DV: $\Delta$ .Property rights institutions	Model 1 (DV: CIM)	Model 2 (DV:ICRG)
CIM(t-1)	-0.0570*** (0.0211)	
ICRG(t-1)		-0.089*** (0.018)
$\Delta$ . Time Horizon	-0.312*** (0.099)	-23.308* (11.735)
$\Delta$ . Development	-0.002 (0.001)	0.097 (0.113)
$\Delta$ . Market Size	-0.014 (0.096)	17.876** (7.967)
$\Delta$ . Oil	0.070 (0.047)	0.128 (1.346)
$\Delta$ . Interest rates	-0.027 (0.026)	0.045 (0.628)
$\Delta$ . Government Consumption	-0.065 (0.042)	-6.468* (3.273)
$\Delta$ . Political Instability	-0.001 (0.001)	-0.162* (0.090)
Time Horizon (t-1)	-0.057 (0.037)	-2.248 (3.203)
Development (t-1)	0.001* (0.000)	0.054*** (0.016)
Market Size (t-1)	0.001 (0.001)	0.143*** (0.046)
Oil (t-1)	-0.016* (0.009)	0.108 (0.426)
Interest rates (t-1)	-0.009 (0.017)	-0.013 (0.621)
Government Consumption (t-1)	-0.040** (0.018)	-1.681 (1.503)
Political Instability (t-1)	-0.001 (0.001)	-0.114* (0.065)
Constant	0.043* (0.025)	-0.728 (0.956)
$R^2$	0.07	0.14
$N$	883	496

Standard errors are clustered on each country; \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$   
Sample years: 1970 to 2003

The effect of time horizon on property rights institutions is reported in Table 2.1. Model 1 presents the main ECM analysis result. The error correction coefficient, the coefficient on lagged CIM falls in the (-1, 0) range implying that an ECM is warranted. The size (0.057) indicates that as explanatory variables change, the dependent variable corrects the equilibrium errors at the rate of 5.7% per period, leaving the rest (94.3%) as disequilibrium shocks in a form of long run effects. While none of the control variables has a significant short term effect, the main independent variable, Time Horizon has a short term effect on the dependent variable, which is negative and significant. The coefficient is -0.31, implies that a one unit increase in time horizon leads to 0.31 point immediate decrease in property rights institutions. Since the time horizon variable measures the predicted probability of regime failure, the negative sign means that autocratic countries with long time horizons (i.e. low probability of regime failure) are more likely to produce strong property rights institutions, supporting the first hypothesis. The bottom half of the tables show the long run relationship between the explanatory variables and property rights institutions. In order to capture the total long run effect of time horizon, I calculate the long run multiplier (LRM). LRM is the ratio of the coefficient of time horizon to the coefficient of the lagged dependent variable (i.e.  $0.0574/0.057$ ), which is -1.01 ( $p < 0.01$ ).<sup>20</sup> That is, time horizon will decline a total of 1.01 points from the unit change in property rights institutions across future time periods. Figure 2.2 shows the dynamic pattern of changes. When there is a one unit change in time horizon, it leads to 0.31 point immediate decrease in property rights institutions, and reduces 0.057 point in the next period, 0.054 point in two periods later, and 0.051 in three periods later, until the remaining effects reaches zero.

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<sup>20</sup> Since LRM is a ratio of two coefficients, standard error is not straightforward. I calculate the standard error using Bewley transformation (Bewley 1979) which is recommended by De Boef and Keele (2008). Formally, the transformation requires two stages. First, estimate predicted value  $\Delta \hat{Y}_t$  by estimating  $\Delta Y = \alpha + \beta_0 Y_{t-1} + \beta_1 X_t + \beta_2 \Delta X + \varepsilon$ , then estimate  $Y_t = a + \delta_0 \Delta \hat{Y}_t + \delta_1 X_t + \delta_2 \Delta X + v$ .  $\delta_1$  provides information on the size of LRM and its standard error.

One interesting finding is that majority of effects occurs immediately, whereas the long term effects are quite small. A possible explanation that time horizon has a short term effect is that autocrats are relatively flexible in implementing policies, thus time horizons are more likely to have immediate effects on the change of institutional quality. In other words, the nature of the decision making process in the autocratic countries may not require the long term relationship. Instead, the lack of veto players and a government-centered decision making process enable more immediate response when conditions change.

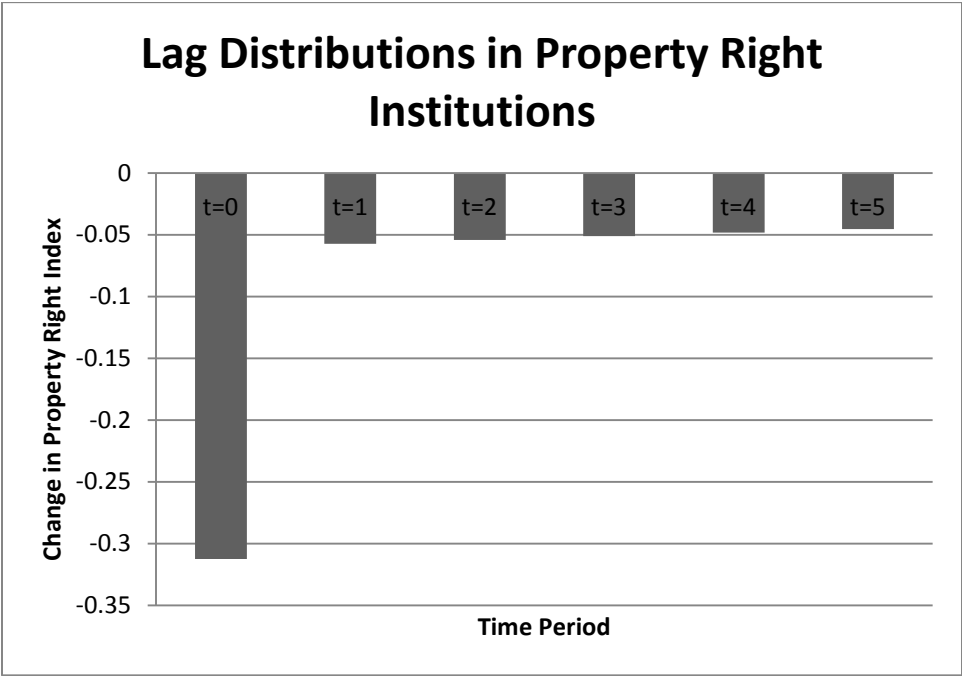


Figure 2.2 Dynamic Effect of Time Horizon on Property Rights Institutions

Model 2 uses ICRG as an alternative measure of property rights institutions. Since the coverage of ICRG data is significantly narrower than CIM, it drops 44% of the observations (387 cases). However, the results are very similar to Model 1. Despite using a very different indicator of property rights institutions, autocrats’ time horizons are still negatively associated with the change of institutional quality. Time horizon will decrease 23.31 points in ICRG index

immediately. LRM is -25.26 (i.e.  $-2.248/0.089$ ), which spread over future time period. In the next period, ICRG will be reduced by 2.248 points, followed by a 2.048 point decline until the remaining effects disappear.

I now turn my attention to the effects of institutions on FDI inflows, which can be tested using the following model.

$$\Delta FDI\ inflows = \alpha + \beta_0 \Delta Institutions + \beta_1 FDI\ inflows_{t-1} + \beta_2 Institutions_{t-1} + controls + \varepsilon$$

The key dependent variable is FDI inflows. Commonly used measures in empirical studies of FDI are either FDI as a percentage of GDP (Ahlquist 2006; Büthe and Milner 2008; Choi and Samy 2008; Jakobsen and De Soysa 2006; Jensen 2003) or logged FDI inflows measured in US Dollars (Allee and Peinhardt 2011; Jakobsen and De Soysa 2006; Li and Resnick 2003). I choose logged FDI inflows as the main dependent variable for two reasons. First, I am more interested in how some autocratic countries attract more FDI inflows rather than FDI inflows relative to the size of the host countries. As Li (2009b) notes, those two indicators measure different concepts. While the former captures the size of inflows, the latter can be understood as the “relative importance of FDI inflows to a country’s national economy or the country’s openness to FDI inflows” (Li 2009b, 174). As I began with the puzzle of explaining ‘different FDI inflows among autocracies’, using non-standardized FDI inflows is more appropriate. Second, the FDI/GDP measure could be empirically problematic. While it is true that larger economies tend to attract more FDI, it is still not clear why we should standardize the dependent variable if we control for the size of the economy on the right-hand side of the equation. (Allee and Peinhardt 2011, 420) also notes that “including some type of standardizing

variables on the left-hand side of the regression equation (for example, FDI as a percentage of GDP) could create artificially large correlations with some independent variables (for example, population, GDP, GDP per capita, etc.)”. Logging FDI inflows is problematic when the original data is either zero or negative. Following Eichengreen and Irwin (1995, 1998), Levy Yeyati, Panizza, and Stein (2007), Kerner (2009), and Tobin and Rose-Ackerman (2011), I employ the following transformation.

$$\text{If } FDI \geq 0 \text{ then } \log FDI = \log (1+FDI), \text{ and if } FDI < 0 \text{ then } \text{Log } FDI = -\log (1+|FDI|)$$

The transformation consists of two parts. First, in order to handle the zero values, the transformation adds one dollar to the value of FDI inflows, so that  $\log 0$  (not defined) becomes  $\log 1$  (zero). Second, in order to adjust the negative values, the transformation logs the absolute value of  $FDI+1$ , and then restores the negative sign. The FDI inflows variable comes from the World Bank.

The key independent variable in this estimation is institutional quality (i.e. CIM). I expect that CIM has a positive effect on FDI inflows. Again, I perform a robustness check using ICRG as an alternative measure of property rights institutions. As control variables, I include measures of market size, growth rate, economic development, government consumption, political instability, and oil rents. First, it is expected that large markets are more likely to attract more FDI because it may increase the expectation of future returns (Li and Resnick 2003). Growth rate is another factor which may affect FDI inflows. It is reasonable to expect that foreign investors may be more interested in fast growing countries to maximize their future profits. Development level is expected to be positively associated with FDI inflows. It is argued that more developed

countries may experience more FDI inflows because they have more extensive infrastructure and consumers have more purchasing power. The variable political instability is expected to affect FDI inflows negatively as political instability may increase domestic uncertainty (Brunetti, Kisunko, and Weder 1997; Jun and Singh 1996; Schneider and Frey 1985). In addition, following Jensen (2003, 2006), I also include government consumption. While economists usually argue that the intervention of the government has a negative impact on economic growth, some underscore the positive role of the government in providing public goods such as infrastructure (Barro 1996; Lucas 1988; Romer 1990). Lastly, because FDI inflows may be heavily driven by extractive industries, I control for the contribution of oil rents to the national economy (% of GDP).

Table 2.2 Property Rights Institutions and FDI Inflows

DV: $\Delta$ .FDI inflows	Model 3 (IV: CIM)	Model 4 (IV: ICRG)
FDI Inflows (t-1)	-0.455*** (0.030)	-0.494*** (0.031)
$\Delta$ .Insitutions (CIM)	-0.544 (1.275)	
$\Delta$ .Insitutions (ICRG)		0.117** (0.052)
$\Delta$ .Development	-0.137 (0.120)	0.045 (0.058)
$\Delta$ .Market Size	-20.154*** (4.637)	-26.479*** (7.892)
$\Delta$ .Growth Rate	0.044*** (0.011)	0.042** (0.018)
$\Delta$ .Government Consumption	0.719 (1.828)	5.041 (3.300)
$\Delta$ . Oil	-2.162 (1.648)	-6.004** (2.821)
$\Delta$ .Political Instability	-0.079 (0.055)	-0.055 (0.103)

Table 2.2 continued

DV: $\Delta$ .FDI inflows	Model 3 (IV: CIM)	Model 4 (IV: ICRG)
Institutions (CIM) (t-1)	1.310*** (0.425)	
Institutions (ICRG) (t-1)		0.061*** (0.020)
Development (t-1)	0.075*** (0.018)	0.056*** (0.017)
Market Size (t-1)	0.312*** (0.043)	0.364*** (0.066)
Growth Rate (t-1)	0.069*** (0.013)	0.059** (0.023)
Government Consumption (t-1)	0.409 (0.638)	1.167 (2.218)
Oil (t-1)	0.180 (0.581)	-0.422 (0.644)
Political Instability (t-1)	-0.071 (0.057)	0.022 (0.115)
Constant	-4.262*** (0.837)	-4.989*** (1.111)
$R^2$	0.23	0.26
$N$	2,064	1,029

Standard errors are clustered on each country; \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$   
Sample years: 1970 to 2008

The main findings are presented in table 2.2. Model 3 and 4 show the ECM analysis results between property rights institutions and FDI inflows. The results provide strong evidence that autocratic countries with stronger property rights institutions attract higher levels of FDI than others. First, the effects of the control variables on FDI inflows are consistent with general expectations and most of them have significant long term effects. Development, market size, growth rate, and oil have positive effects on FDI inflows with political instability reducing FDI



inflows. Market size has a mixed effect on FDI inflows; it positively affects FDI inflows in the long run, but has an immediate, negative effect. My key independent variable CIM is positive and statistically significant, supporting the second hypothesis. This means that autocratic countries with stronger property rights can attract more FDI with the effects of property rights on FDI inflows being spread over time periods. In model 4, I reestimate model 3, using ICRG as a robustness test. While ICRG is limited in its temporal and spatial domain compared to CIM, the results are essentially the same as model 3.<sup>21</sup>

How strong is the effect of property rights on FDI inflows? From model 3, the LRM of property rights institutions is 2.88 (i.e.  $1.310/0.455$ ) and the Bewley (1979) transformation confirms that the LRM of property rights institutions is statistically significant at 99% level. It appears that one unit increase in the property rights index leads to a long run change of 2.88 points in the dependent variable, which is a 288% increase in FDI inflows.<sup>22</sup> Precisely, a one unit increase in property rights institutions leads to 1.310 point increase in the dependent variable (131% increase in FDI inflows) in the next period, another 0.714 point (71.4%) change in the following period, 0.389 point (38.9%) increase in the next time period. The size of the effect seems to be very large. If property rights institutions change by one standard deviation (0.14), FDI inflows will be increased by 40.3% in the long run (i.e.  $2.88*0.14=0.403$ ). Figure 2.3 presents the dynamic of the change in the dependent variable with an increase of one standard deviation in property rights institutions. There is no immediate change in the dependent variable.

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<sup>21</sup> I performed a number of additional robustness tests to confirm that the findings do not result from artificial model specifications. I report them in an online appendix due to space limitations. First, I include the Time Horizon variable to deal with possible spuriousness between institutions and FDI inflows. Second, I add various control variables to model 3 (e.g. Bilateral Investment Treaties, trade openness, world FDI supply, domestic investment, etc.). Third, I drop a possible outlier such as China and also run robust regression recommended by Choi (2009). Fourth, I test the main model employing country fixed effects to cope with omitted variable bias. Across these various specifications the main finding remains robust.

<sup>22</sup> Since my dependent variable is *logged* FDI inflows, the increase of the dependent variable should be understood as a growth rate (e.g. 2.88 corresponds to a change of 288%).

However, in the next year, the one standard deviation increase results in a change of 0.1834 points, which is 18.3% increase in FDI inflows, and followed by another 0.1 point (10%) change in the third year. This simulation result empirically confirms my expectation that long time horizons present favorable conditions for international investors.

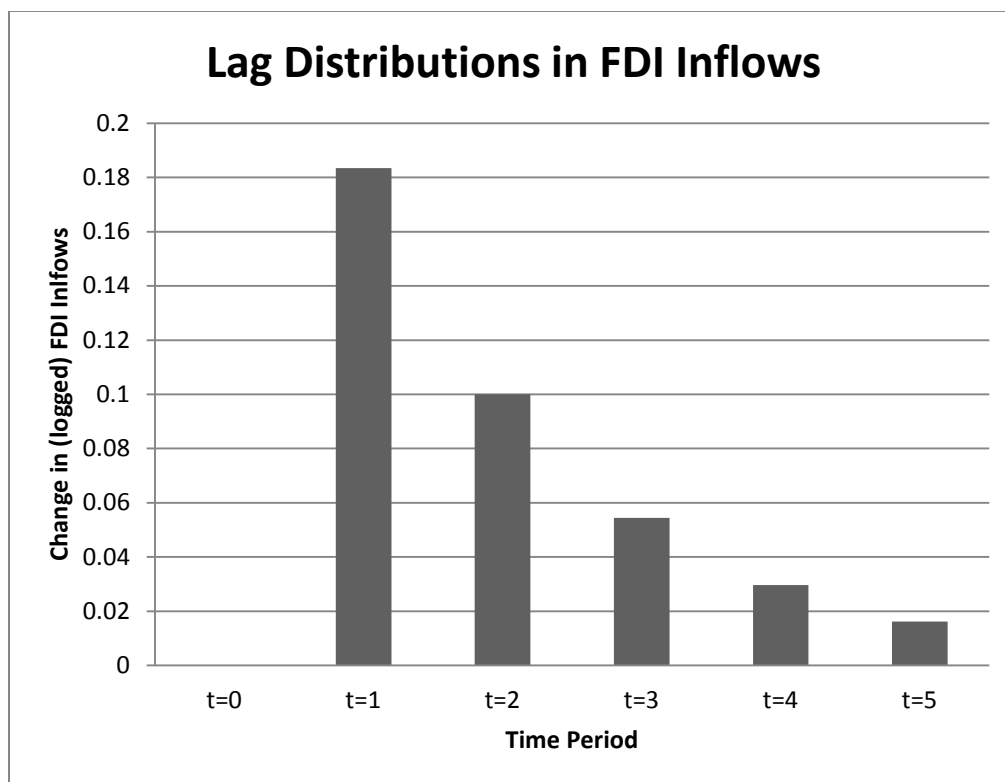


Figure 2.3 Dynamic Effect of Property Rights Institutions on FDI Inflows

While the above results clearly support the two hypotheses, one may question if those two stages are connected or not. That is, although it is clear that time horizon affects the development of property rights institutions and stronger property rights institutions attract more FDI inflows, it is less clear whether the effects of property rights institutions indeed stem from the time horizon stage. Thus, it is desirable to examine the relationship between time horizon,

property rights institutions, and FDI inflows in more direct manner. Similar to Li and Resnick (2003), I estimate two variables, the property rights institutions (CIM) explained and unexplained by time horizon, respectively.<sup>23</sup> If my argument is correct, we would see that the property rights institutions explained by time horizon have positive and significant effects on FDI inflows but not for the other one. The empirical results in table 2.3 clearly provide evidence supporting this prediction. In model 5, I include a property rights institutions variable which is predicted by time horizon. The coefficient of the key interest variable, *Institutions by Time Horizon* is positive and significant - the LRM is statistically significant at 99% level. As I expected, property rights institutions varying with autocrats' time horizon have positive and significant long term effects on FDI inflows. In the second column, I examine the effect of the institutions which are not explained by time horizon. I expect to see the null finding, and that is exactly what model 6 presents. The same results hold in model 7 where I include both variables. Again, I calculate the LRM of two key variables using the Bewley transformation to estimate the standard error of long run effects. Throughout the models, while the institutions explained by time horizon have positive long term effects on FDI inflows ( $p < 0.01$ ), the institutions which do not vary with time horizon does not show any significant effects on FDI inflows. Altogether, these findings provide strong evidence that autocrats with longer time horizon are more likely to develop property rights institutions, and those property rights institutions, in turn, attract more FDI inflows.

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<sup>23</sup> I regress *CIM* on *Time Horizon* and use the predicted values to measure *Institutions by Time Horizon*. *Institutions not by Time Horizon* are the predicted values of estimation which includes all variables used in model 1, excluding *Time horizons*.

Table 2.3 Time Horizon, Property Right Institutions, and FDI Inflows

DV: $\Delta$ .FDI Inflows	Model 5	Model 6	Model 7
FDI Inflows (t-1)	-0.447*** (0.055)	-0.441*** (0.055)	-0.447*** (0.055)
$\Delta$ .Institutions by Time Horizon	-5.564 (7.277)		-4.803 (7.379)
$\Delta$ .Institutions not by Time Horizon		9.969 (11.094)	9.076 (11.531)
$\Delta$ .Development	-0.271 (0.289)	-0.251 (0.292)	-0.267 (0.289)
$\Delta$ .Market Size	-13.855** (6.198)	-14.079** (6.056)	-13.986** (5.990)
$\Delta$ .Growth Rate	0.063*** (0.013)	0.059*** (0.014)	0.063*** (0.013)
$\Delta$ .Government Consumption	1.091 (2.329)	0.031 (2.396)	0.123 (2.434)
$\Delta$ .Oil	-2.780 (3.530)	-2.833 (3.588)	-2.810 (3.603)
$\Delta$ . Political Instability	0.031 (0.074)	0.020 (0.071)	0.029 (0.073)
Institutions by Time Horizon (t-1)	2.341 (1.739)		2.416 (1.763)
Institutions not by Time Horizon (t-1)		6.781 (11.274)	5.775 (11.570)
Development (t-1)	0.100*** (0.034)	0.011 (0.157)	0.020 (0.161)
Market Size (t-1)	0.416*** (0.078)	0.355** (0.138)	0.365** (0.138)
Growth Rate(t-1)	0.087*** (0.016)	0.077*** (0.017)	0.085*** (0.016)
Government Consumption (t-1)	0.934 (0.580)	4.971 (6.867)	4.502 (7.110)
Oil (t-1)	0.348 (0.841)	1.339 (1.603)	1.125 (1.642)
Political Instability (t-1)	0.015 (0.069)	0.007 (0.070)	0.028 (0.072)
Constant	-7.167*** (1.551)	-9.759 (7.179)	-10.940 (7.595)
$R^2$	0.23	0.22	0.23
$N$	777	777	777

Standard errors are clustered on each country; \* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

Sample years: 1970 to 2003

## 2.6 Conclusion

In this chapter I argue that autocratic countries with long time horizons can provide similar institutions, accordingly attracting higher levels of FDI inflows. Anticipating long time horizons, autocrats can address a number of the difficulties in implementing policies which attract FDI, including the establishment of better institutions. Evidence from ECM estimations clearly supports my expectation that autocratic countries with long time horizons can provide stronger property rights institutions and autocratic countries with strong property rights institutions attract more FDI inflows than others. My estimations suggest that an increase of one standard deviation in the property rights index is associated with almost 40% increase in FDI inflows in the long run. Even with alternative measures, various control variables, and dropping a potential outlier, these findings remain robust.

## **CHAPTER THREE**

# **POLITICAL INSTITUTIONS AND FDI INFLOWS IN AUTOCRATIC COUNTRIES**

### **3.1 Introduction**

In the previous chapter, I saw all autocratic countries as a single type and thus there were no cross regime type differences in terms of government and political institutions. Under this homogeneity assumption, I could examine how the difference in economic institutions led to the diversity of FDI inflows in autocracy. In this section, I relax this homogeneous assumption and seek to explain FDI inflows by investigating the differences of political institutions in autocracy. In particular I examine how seemingly democratic institutions such as elected legislatures in autocracies affect the investment decision of MNCs. I argue that autocracies with the seemingly democratic political institutions attract more FDI inflows for following reasons. First of all, autocrats which rely on relatively large constituencies need to distribute more rents and accordingly have stronger preferences for foreign investment. Second, autocratic legislatures can increase the transparency of the decision making process in autocratic government accordingly reducing the transaction costs for MNCs. Lastly, these institutions can play the role of veto players in autocracies, allowing MNCs to expect more stable investment environments which are less prone to change. Based on the last insight, I further argue that the effects of the political institutions are even conditioned on the quality of other commitment institutions including property rights institutions which I introduced in the previous chapter. Building on the veto player component, I expect that the policy stability stemming from the multiple actors will be more favored by MNCs when the host countries have strong property rights institutions, since the legislatures further strengthen the credibility of the property rights institutions.

My empirical analysis testing of all autocratic countries from 1970 to 2008 supports this expectation. Using the measure of autocratic institutions designed by Gandhi (2008), I find that autocratic countries with legislatures are likely to attract more FDI inflows than others. In addition, my empirical result suggests that the effects of political institutions are modified by the level of property right institutions that the host countries have. As I expect, the effects of the autocratic legislatures on FDI inflows are positive and significant and the size of effects increases as the level of the property right institutions increases. Interestingly, however, the positive effect of property right institutions on FDI inflows (which I found in the previous chapter) remains the same, regardless of the presence of legislatures or parties. This finding suggests that while the political institutions encourage foreign investments on average, the simple presence of the institutions may not be a sufficient condition for attracting FDI inflows. The reason can be as follows. MNC's decision to make investments is based on the policy environment which the host governments provide. An autocratic legislature may be one of many factors which affect this environment but it has little to do with the fundamental commitment issue discussed earlier. That is, if the host government does not provide any commitment mechanism to directly protect foreign assets from potential threats, then the simple presence of autocratic legislatures will not strongly affect the probability attracting FDI inflows.

In the next section, I review previous literature examining the variation of political institutions in autocracies and how existing works link the between the political institutions and political/economic performances among them. Then, I discuss possible causal mechanisms through which the autocratic legislatures can help host countries attract more FDI inflows. I argue that the political institutions can enhance the transparency of the decision making process in autocracies while they can also act as veto players, increasing policy stability.

### 3.2 Pseudo-Democratic Institutions in Autocratic Countries

Growing body of literature has recently focused on the institutional differences of political system in autocratic regimes and how these variations lead to distinctive political economic outcomes (Boix and Svobik 2013; Bueno de Mesquita, Smith, Siverson, and Morrow 2003; Cheibub, Gandhi, and Vreeland 2010; Gandhi 2008; Geddes 2003; Gehlbach and Keefer 2011, 2012; Levitsky and Way 2010; Wright 2008a). Among others,<sup>24</sup> one approach scholars have taken is to examine the role of seemingly democratic institutions including parties and legislatures in autocracy. While the conventional view on the role of these institutions is pessimistic and regards them as no more than window-dressing (Gasiorowski 1995), scholars now argue that they are designed to serve certain political purposes and thus this variation of political institutions can also lead to distinctive political outcomes.

Gandhi and Przeworski (2006) and Gandhi (2008) argue that these institutions are the products of cooptation in which rulers exchange policy concessions to gain political support from opposition groups. Autocrats care about their own survival and the threats usually come from ruling elites and mass mobilization. However, dictators cannot solely rely on repressive means to prevent this challenge from taking place because it is not only too costly to keep monitoring and punishing all offenders, but also not as efficient as drawing voluntary cooperation from the opposition. In addition, dictators also need voluntary cooperation such as domestic investment which can hardly be obtained in a compulsory manner. This cooptation argument suggests that autocrats have to solicit cooperation from oppositions and further

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<sup>24</sup> For example, Bueno de Mesquita et al. (2003) explain the variation of political system based on two institutional dimensions which are selectorate, the people who select a leader, and the winning coalition, the minimum size of support for leader to stay in power. Cheibub et al. (2010) employ a three-way classification consisting of monarchy, military, and civilian dictator, based on the idea who can depose the leader from power. Geddes (2003) uses a similar classification as Cheibub et al. but she further disaggregates “civilian dictators” into single party and personalist dictators.



contends that providing legislative seats can be seen as a policy concession by which autocrats can appease domestic threats and draw cooperation.

Magaloni (2008), Gehlbach and Keefer (2011, 2012), and Boix and Svobik (2013) take a slightly different view from Gandhi and Przeworski. They agree with the cooptation hypothesis to the extent that those institutions are created to serve political purposes, yet they underscore how the institutions can solve the commitment problem which the cooptation argument cannot address. While the cooptation argument is convincing, it cannot explain why dictators want to keep their promises. According to the cooptation hypothesis, it is not sure why autocrats do not want to expropriate challengers once potential threats are appeased with policy concessions. That is, a simple exchange of the policy concessions cannot make the rulers commit credibly not to expropriate challengers.

In this vein, Magaloni (2008) sees that parties and elections are the way of addressing the commitment issue, which facilitate power sharing between the ruler and rivals. She argues that autocrats can solve the commitment issue by tying their hands, to be precise, by delegating power to political parties in which rivals have access to power positions and benefits. In addition, she further explains that multiparty elections can constrain the dictator because they provide a formal means by which to challenge the ruler. Gehlbach and Keefer (2011, 2012) take a similar approach as Magaloni concerning the commitment issue of power sharing, but they examine how dictators can utilize ruling parties to address the commitment problem. They argue that autocrats can increase the credibility of power sharing by institutionalizing ruling parties in which political elites coordinate collective actions against abusive rulers. Since rulers who expropriate group members can face a coordinated rebellion, promise of power sharing is more credible under these institutions.

Boix and Svobik (2013) see the purpose of political institutions as a way of alleviating an information problem between autocrats and ruling elites. While both autocrats and elites have a strong incentive to make a commitment to joint ruling, thus power sharing, this motivation is threatened by the fact that the ruler has more private information on national resources and benefits, accordingly bearing the possibility of abusing his allies. They contend that political institutions can solve this asymmetric information problem by providing formal places where transparent interactions can be observed. Thus, the purpose of creating formal institutions is to complement the credibility of commitment to power sharing.

While the theoretical differences between the cooptation argument and the power sharing arguments are obvious, they share the common premise that rulers are constrained by political rivals through these institutions. Focusing on this constraining feature, scholars explore the link between the political institutions and economic performances in autocracy. As North and Weingast (1989) note, one possible link is that government expropriations are limited by other political actors through the autocratic legislature, and in turn, this constraint promotes domestic investments. Wright (2008a), for instance, suggests that autocratic governments can create binding legislatures to encourage domestic investment, in particular when they are not endowed with natural resources. Similar argument can be found from Gehlbach and Keefer (2011, 2012). As described above, they argue that a dictator can benefit from institutionalizing the ruling party which incorporates political elites into the government system. This institutionalized ruling party provides a means to coordinate rebellion, which in turn provides a credible commitment not to expropriate political elites. The implication of this argument echoes North and Weingast (1989) in that how the credible commitment can encourage private investments. Gandhi (2008) also finds evidence that autocracies with multi party legislatures tend to show higher growth rates.

She suggests several possible explanations such that those nominal democratic institutions can provide a somewhat credible commitment as discussed above. They facilitate information sharing between rulers and ruled, mobilizing and allocating resources efficiently, and these institutions increase the regime stability thus reducing the transaction costs of entrepreneurs.

The missing link here is the lack of literature examining the relationship between autocratic political institutions and the likelihood of FDI inflows. Not only do autocratic institutions attract domestic investments and affect economic growth, they also can shape the amount of FDI inflow. While the growing body of literature examines the political economic implications of those nominal democratic institutions, surprisingly less concern is made regarding how those institutions have an influence on MNCs' investment decision.<sup>25</sup>

### **3.3 Pseudo-Democratic Institutions and FDI Inflows**

FDI is an interaction between foreign investors and host governments. That is, the preferences of host governments as well as the ones of foreign investors affect the level of FDI inflows. First of all, the preference of autocratic governments on FDI inflows would be influenced to the extent which they depend on nominal democratic institutions. As scholars posit, the political fates of autocratic leaders usually rely on certain constituents, and the extent to which autocrats are accountable to domestic groups can vary depending on their political system. In the previous section, we saw that the reason for creating autocratic legislatures and parties is to secure the regime from potential political threats from the inside. Both the cooptation and power sharing arguments assume that meeting the demands of political elites is the key to maintaining a stable

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<sup>25</sup> Insofar as I know, only Gehlbach and Keefer (2010, 2012) argue that autocracies with institutionalized ruling parties attract more domestic investments and further show that they have little impact on FDI. They also examine how autocratic legislatures affect the level of political risks the host countries have, yet their dependent variable is not FDI inflows.

regime. That is, autocratic governments with legislatures and parties should be more accountable to the groups with whom they share the power, compared to the personalist type of autocrat, or military dictators which are usually supported by relatively small military juntas. This variation of accountability also implies that autocratic governments would have different incentives in distributing economic benefits, including the ones from FDI inflows. FDI inflows can be enormous source of economic benefits and privileges. Not only do FDI inflows have positive externalities creating GDP gains and jobs at the country level, but they may also have an instrumental value as a means of generating economic returns to asset owners. Hence, autocrats with relatively larger domestic constituencies, usually with legislatures and parties, are more likely to make an effort to promote FDI inflows as a means of economic distribution. That is, holding the domestic economy constant, as the need for economic distributions increase, autocrats will shift their interests toward FDI.

In addition to the preference of certain types of autocratic countries discussed above, there are reasons that autocratic countries with nominal democratic institutions can be attractive to MNCs. The mechanism is mainly twofold. First, legislatures and parties in particular are useful to foreign investors as those institutions allow MNCs access to the inside information of an autocratic regime, in other words, increasing the transparency of regime. The importance of transparency in foreign investment is discussed by scholars. For example, Rosendorff and Shin (2012) see the unpredictable environment as an example of political risks and posit that transparency can reduce the future transaction costs resulting from the uncertainty. By allowing foreign investors to observe state behaviors, they further argue that host countries can build a good reputation through which the host countries can credibly commit to their investment climate. It is not surprising to expect that autocratic regimes are relatively closed compared to

democratic ones. In a democratic regime, people can utilize various political institutions to debate government performances and exchange their opinions over policies. Legislatures and parties can be the examples of those institutions in which people can observe what the current political agendas are and which policies are currently under debate. Autocratic regimes, on average, lack these institutions and their decision making process tends to be secretive. This secrecy not only can increase the chance of government corruption and expropriation as Boix and Svobik (2013) posit, it also increases uncertainty in the investment environment. Autocratic institutions, while they are not perfect, can provide information which regime outsiders can easily observe. For instance, foreign investors can observe the political debates and bargaining outcomes made inside autocratic regimes regarding the rules and regulations which govern foreign investment, or the investors may be able to predict with better odds if the host government will resort to any illegal means to increase their returns. Of course, autocratic parties and legislatures are not as fully transparent as those of democratic regimes. However, they can still convey valuable information to MNCs with which they can predict and cope with future investment environments, accordingly reducing the uncertainty and transaction costs to some extent.

Second, autocratic parties and legislature can be valuable to foreign investors not only in presenting information, but also in providing a stable policy environment with more veto players. Tsebelis (1995) argues that veto players promote policy stability and that, as the number of veto player increases, any political changes from the status quo is deterred. Building on Tsebelis, Henisz (2000) argues that MNC enter a host country expecting that an initial policy position will remain unchanged, accordingly increasing FDI inflows. Similarly, Li (2009a) shows that there is considerable variation of veto players among autocracies, and the number of autocratic veto

players is negatively associated with FDI expropriation rate. Autocratic countries with parties and legislatures contain more political actors in the decision making process, and the diversity of preferences makes policy changes less feasible.

In addition to the direct effect, I further expect that autocratic legislatures can strengthen the credibility of existing market institutions such as property rights institutions. As discussed above, political institutions enable multiple political actors to participate in the policy making process. The veto player argument posits that policy changes are likely to be hindered with more veto players because the diverse preferences of multiple actors make it harder to reach an agreement. This implies that if a host government employed market friendly policies which are favored by MNCs, then the policies would not be changed easily in countries with more veto players. As I discussed in the previous chapter, property right institutions (and legal enforcement mechanisms) are essential for attracting FDI inflows. Host countries suffer from the commitment problem due to the illiquid nature of FDI inflows. Given this, property right institutions provide a direct assurance to MNCs. Thus, the countries with strong property right institutions and political institutions which make policies changes less feasible should be more favored by MNCs.

This logic also provides an interesting prediction. I expect that autocratic political institutions, on average, have positive effects on FDI inflows, and I further argue that the effect of the political institutions should be stronger in the countries with better market institutions. Then what about the countries which have the political institutions but do not have strong property rights institutions? When scholars examine the relationship between veto players and FDI inflows, they usually focus on the policy stability that results, but do not focus on the direction or content of that stability. That is, while stability can be a good signal to foreign investors as a window for forecasting the future, if the current policies or rules are not market

friendly, the stability will be seen as bureaucratic rigidity making the host governments less likely to adopt market friendly institutions in the future. Under this circumstance, veto players and resulting policy stability may not be a good signal to MNCs. That is, the nominal democratic institutions do not necessarily have positive effects on FDI inflows when the market institutions of the host countries are weak. However, whether it would be a negative or no effect is an empirical question. On the one hand, we may expect that the positive effects of autocratic institutions are almost evenly offset by weak market institutions. On the other hand, institutional inflexibility can be seen as a negative signal to MNCs as the likelihood of accepting market friendly policies are much lower under an inflexible institutional design.

In sum, I have two clear predictions. I expect that autocratic political institutions to positively modify the credibility of host countries' property rights institutions. Autocratic countries with both nominal democratic institutions and developed property rights are the most preferred by MNCs as places to make investments. If the government respects market friendly policies such as property rights institutions, legislatures can help make those institutions less variable. This will send much stronger signals to foreign investors. Not only do the host countries have relatively transparent and stable regimes but also their market friendly institutions are credibly protected. However, the countries with weak property rights institutions, even if they have pseudo democratic political institutions, will not be able to attract a considerable amount of FDI inflows. Their veto players can be a signal of institutional inflexibility which hinders the likelihood of implementing economic reforms or embracing investment friendly policies.

*H1. Autocratic countries with nominal democratic institutions are more likely to have higher level of FDI inflows*

*H2. The effect of nominal democratic institutions on FDI inflows is more likely to be stronger among autocratic countries with strong property rights institutions. However, the institutions would not have a positive effect on FDI inflows when the countries have weak property rights institutions.*

There are two possible mechanisms by which autocratic legislatures and parties can indirectly affect FDI inflows. First, as North and Weingast (1989) suggest, institutionalized power sharing, such as building legislatures, can lead to the development of property rights institutions. The presumption here is that autocratic institutions can constrain predatory behaviors of government thus providing better protections to investors. This is the most commonly suggested mechanism explaining the correlation between autocratic legislatures and economic growth (Gehlbach and Keefer 2011, 2012; Wright 2008a). Given FDI is a relatively fixed asset and is subject to *ex-post* commitment violations, strong property rights institutions can credibly commit to the protection of the assets. If autocratic legislatures can produce strong protection of foreign properties, we would see higher level of FDI flowing into autocracies with legislatures. However, this explanation is based on an assumption that autocratic legislatures represent the interests of MNCs, which is somewhat questionable. Legislatures can represent the interests of political elites which are usually capital owners in autocratic countries. Through the legislatures, political elites can collectively coordinate themselves to check and monitor the predatory behaviors of the ruler, accordingly strengthening property rights (Gehlbach and Keefer 2011, 2012; North and Weingast 1989). These elites, in turn, can make more domestic investments which are necessary for economic growth. Yet, it is less convincing that the legislatures act on behalf of the interests of foreign investors, thus, we have little reason to



believe that autocratic political institutions will protect the rights of foreign investors and attract FDI in the same manner they do for domestic investments. In fact, Gehlbach and Keefer (2012) shows that autocratic institutions do not have significant effect of FDI inflows while they can attract higher domestic investments. They note that “Autocratic institutions that protect domestic investors appear not to affect FDI significantly.” (Gehlbach and Keefer 2012, 629)

A second mechanism can be found in the correlation between the presence of nominal democratic institutions and regime stability. The cooptation argument, for example, explains that an autocratic government provides policy concessions in the form of pseudo-democratic institutions to bargain with political opponents in order to address potential challenges (Gandhi and Przeworski 2006). In addition, the power sharing argument suggests a very similar explanation: an autocrat’s willingness to share power is credible depending upon the level of threat the government faces (Boix and Svobik 2013; Magaloni 2008). In fact, both arguments rely on the assumption that considerable domestic challenges exist in the regime, and autocrats provide a means to appease them, thereby lengthening their tenures. Based on this reasoning, scholars argue that power sharing institutions are positively associated with regime stability and autocratic tenure (Boix and Svobik 2013; Gandhi and Przeworski 2006; Gandhi 2008; Magaloni 2008). Therefore, it is also possible to expect that autocratic political institutions shape autocrats’ time horizon, and in turn, they increase the level of FDI inflows. Since this chapter is more concerned about the direct effect of autocratic political institution on FDI inflows, I control for the property right institutions and time horizons to examine the effects of the institutions on FDI inflows more closely.

### 3.4 Research Design

I employ a time series cross sectional design. The unit of analysis is a country year which covers all autocratic countries from 1970 to 2008 (some estimations cover up to 2003 due to data availability). As an estimator I use a panel corrected standard errors model (PCSEs) which is recommended by Beck and Katz (1995). I further conduct a robustness test using a country fixed effects model.

My key dependent variable is FDI inflows. As I discussed in the previous chapter, I use (logged) FDI inflows instead of FDI/GDP both for both theoretical and empirical reasons. In addition, I use the same transformation to handle zero and negative values. As a measure of nominal democratic institution, I use political institutions data employed by Gandhi (2008). She codes autocratic institutions into three categories: zero for non-institutionalized dictatorship, one if the incumbent party occupies all legislative seats, and two if there is a multi-party legislature. As my argument mainly concerns the role of power sharing and the constraint of other actors in decision making process, I code the variable *Autocratic Political Institutions* as a dichotomous variable: one if a country has a multi-party legislature and zero otherwise. For the test of the second hypothesis, I interact the political institutions variable with the property rights institutions (e.g. contract intensive money: CIM) which I used in the previous chapter. As control variables, I include *time horizon*, *the level of development*, *market size*, *growth rate*, *government consumptions*, *political instability*, and *oil dependency*.

My main models are follows:

1.  $FDI\ inflows = \beta_1\ Autocratic\ Political\ Institutions + \beta_2\ Property\ Rights\ Institutions + \beta_3\ Time\ Horizon + controls$

$$2. \text{ FDI inflows} = \beta_1 \text{ Autocratic Political Institutions} + \beta_2 \text{ Property Rights Institutions} + \beta_3 \text{ Autocratic Political Institutions} * \text{ Property Rights Institutions} + \beta_4 \text{ Time Horizon} + \text{controls}$$

The first model is an additive model which captures the independent effect of autocratic political institutions on FDI inflows. In particular, in order to rule out any effect through the domestic economic institutions (e.g. property rights institutions), I control for the property rights institutions and time horizons in the first model. Since I expect that autocratic countries with political institutions, on average, attract more FDI inflows than other autocratic countries,  $\beta_1$  should be positive and significant even after controlling for property right institutions. In the second model, I include the interaction term between the political institutions and property rights institutions variables. I argue that the effect of political institutions will be much stronger among countries with better economic policies. Thus, the sign of the interaction term should be positive so that the marginal effect of political institutions ' $\beta_1 + \beta_3 \text{Property Rights Institutions}$ ' increases as the value of property rights institutions increases.

### 3.5 Empirical Results

I begin with table 1 which reports the main results of this chapter. Model 1 includes the autocratic political institutions along with a set of control variables. I further add Property rights and Time horizon in model 2 to see if there is any concern of model sensitivity or the indirect effects resulting from the alternative mechanisms I discussed earlier. Model 3 shows the results of the interaction model to test the second hypothesis. In all three models, both the level of development and market size have positive and significant effects on FDI inflows. Growth rate,

another important economic determinant of FDI is significant in models 2 and 3. It is also worth noting that the coefficients of the control variables do not change as I add more variables in models 2 and 3, indicating that the model is not very sensitive.

Now I discuss the main findings of table 3.1. In model 1, it is clear that countries with nominal democratic institutions attract more FDI inflows. The coefficient of the political institutions variable is positive and statistically significant at 1% level, supporting my first hypothesis. In order to rule out the indirect effects of the political institutions on FDI inflows, I include the variables of property rights institutions and time horizon in model 2. With the additional variables, the effect of political institutions remains the same, providing empirical evidence that autocratic institutions have independent effects on FDI inflows which may be distinct from what North and Weingast (1989) and others suggest. It is also interesting that while property rights variable is significant time horizon is not. I think the reason is that property rights have a more direct effect on FDI inflows since they can address the commitment problem, which is a distinct causal mechanism, as I explained in chapter 2. However, the effect of time horizons would be absorbed by property rights (see the robustness test section in chapter 2). In fact, when I drop both political institutions and property rights, then time horizon alone has a positive and significant effect on FDI inflows. However, the effect turns insignificant once I include either the property rights or political institutions variable (or both as seen in model 2).

This finding presents very interesting dynamics between the three variables as long as one rules out the concerns of the aforementioned alternative explanations. First, both property rights and political institutions remain significant regardless of the inclusion of other variable. Thus, they seem to have their own independent effect on FDI inflows. I argue that political institutions can attract more FDI inflows by providing more information, which is a different

mechanism from which property rights would affect FDI inflows, as discussed in the previous chapter. I mentioned that it would be less convincing that political institutions would provide a commitment mechanism to foreign investors as they do for the domestic investment. Instead, I suggested that the main effects should be found from the relatively higher transparency and thus lower transaction costs which political institutions produce. The results here clearly support that they do have different causal mechanisms. Second, time horizon may matter but only in an indirect manner as I confirmed in the previous chapter. This implies that the second possible alternative mechanism is not a concern anymore. If autocratic political institutions affect FDI inflows by providing regime stability, we would have observed that political institutions turns insignificant once controlling for the time horizon. However, autocratic political institutions remain significant after including time horizon, thereby confirming that the effects of autocratic political institutions on FDI inflows do not come from the regime stability path.

Now I turn to model 3 where I add an interaction term between the political and economic institutions variables. The coefficient on the interaction term is in the direction I predict - it is positive. Once I include the interaction term, the constitutive term autocratic political institutions turns negative and insignificant, whereas the coefficient of property rights institutions remains the same, positive and significant. However, one should be careful in interpreting the results of interaction models. Since the effect of one independent variable on the dependent variable is conditioned upon the change of another variable, the coefficient of each constitutive term is less informative. In addition, the standard error of the interaction effect should take into account the covariance of two independent variables. This implies that even the standard error of interaction term should not be perceived as a direct indicator of statistical significance. Brambor, Clark, and Golder suggest that “it is perfectly possible for the marginal

effect of X on Y to be significant for substantively relevant values of the modifying variable Z even if the coefficient on the interaction term is insignificant.” (Brambor, Clark, and Golder 2006) Thus, in order to capture the quantities of interest, I plot the marginal effect of autocratic political institutions on FDI inflows (i.e.  $\beta_1 + \beta_3 \text{Property Rights Institutions}$ ) in figure 1.

Table 3.1 Effects of Autocratic Political Institutions

DV: FDI inflows	Model 1	Model 2	Model 3
Autocratic Political Institutions	0.800*** (0.177)	0.852*** (0.225)	-0.761 (0.908)
CIM		2.865*** (0.691)	2.023** (0.864)
Autocratic Political Institutions * CIM			2.225* (1.290)
Time Horizon		-3.049 (2.779)	-3.043 (2.779)
Development	0.110*** (0.015)	0.134*** (0.039)	0.130*** (0.040)
Market Size	0.617*** (0.074)	0.701*** (0.124)	0.684*** (0.127)
Growth Rate	0.011 (0.007)	0.020** (0.009)	0.021** (0.009)
Government Consumptions	0.092 (1.350)	1.184 (0.990)	1.020 (1.004)
Political Instability	-0.037 (0.030)	-0.005 (0.034)	-0.006 (0.034)
Oil	0.008 (0.009)	0.015 (0.010)	0.016 (0.010)
Constant	-7.103*** (1.228)	-10.872*** (1.953)	-9.999*** (2.132)
$R^2$	0.06	0.11	0.11
$N$	2,321	1,524	1,524

Standard errors in parentheses

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Figure 3.1 presents the marginal effects of autocratic political institutions on FDI inflows, which is based on model 3. The Y axis represents the estimated marginal effects of autocratic political institutions as the level of property right institutions changes in X axis. From the graph,

it is straightforward that the effect increases with the increase of property right institutions. That is, countries which have autocratic political institutions attract more FDI inflows, particularly when their property right institutions are strong. This finding supports my second hypothesis that the economic institutions positively modify the strength of the pseudo democratic institutions.

Substantively, compared to the autocratic countries which do not have the political institutions, the presence of autocratic institutions can attract about 85% more FDI inflows when the property right institutions index is its mean value (0.72), and the size of marginal effects increases to 115% when the property right index is around 0.86, which is one standard deviation above the mean. It turns out that an average autocratic government which has nominal democratic institutions can attract more than twice the amount of FDI inflows compared to an autocratic government which does not have political institutions. In addition, the marginal effects turn significant at 5% level when the property right index is greater than around 0.6. Under this value, autocratic political institutions do not attract foreign investors. Note that more than 82% of my sample falls above 0.6 on the property rights scale.

This result is sharply contrasted with what figure 3.2 presents. In figure 3.2, I plot the marginal effect of property right institutions given the change of autocratic political institutions. As the autocratic political institutions variable is dichotomous, figure 3.2 shows two points – whether there is a nominal democratic institutions or not, along with 95% confidence intervals. The general finding is similar to what figure 1 presents. Not surprisingly, the effect of economic institutions becomes stronger when the host countries have political institutions. However, it is worth noting that the marginal effect of property right institutions remains positive and significant when there are no political institutions at all. No matter if the host countries have

nominal democratic institutions or not, property rights institutions can attract positive amount of FDI inflows.

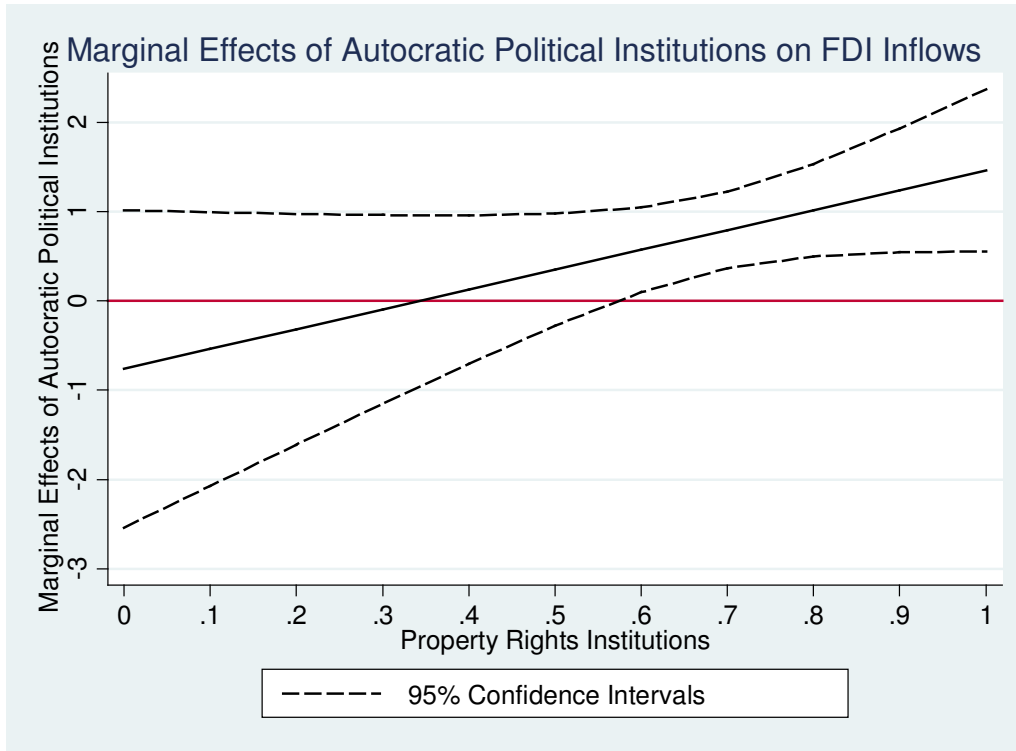


Figure 3.1 Marginal Effects of Autocratic Political Institutions on FDI Inflows

From figure 3.1 and 3.2, we can infer that while strong property right institutions are sufficient conditions for attracting FDI inflows, autocratic political institutions are not. Regardless of the existence of autocratic political institutions, property rights institutions have a positive effect on FDI inflows. Then why is the effect of political institutions weaker than the one for economic institutions? The answer could be related to the commitment problem discussed earlier. MNCs may not make investment decisions simply because the host countries have nominal democratic legislatures. While these institutions may *help* foreign investors to make a better estimation about their investment environment and future transaction costs, they do not fundamentally address the concern about contract violations possibly resulting from the



commitment problem. On the contrary, as I discussed in the previous chapter, strong property right institutions can directly remedy the commitment issue by providing a judicial mechanism to protect foreign assets. This result further confirms my argument that they represent different causal mechanisms encouraging foreign investment. Autocratic institutions can provide a favorable environment to attract FDI, but they do not appear to address the commitment problem directly as property rights institutions do. Instead, they may provide more information on domestic conditions along with further strengthening the credibility of other commitment institutions.

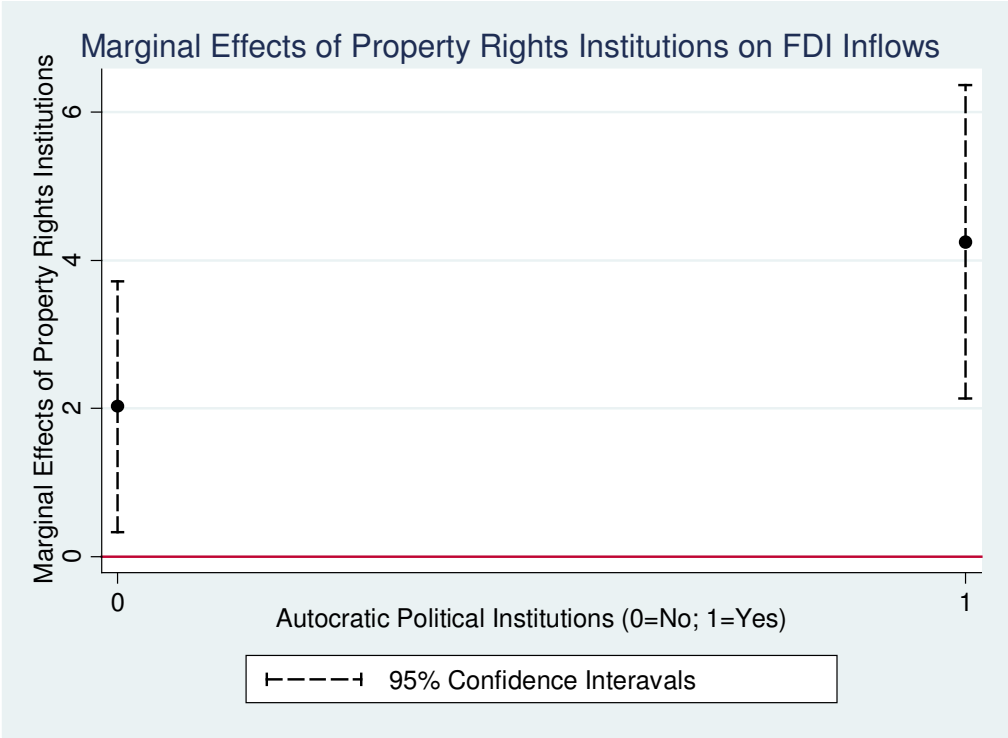


Figure 3.2 Marginal Effects of Property Rights Institutions on FDI Inflows

Table 3.2 Robustness Test - Country Fixed Effects

DV: FDI inflows	Model 4	Model 5
Autocratic Political Institutions	0.405** (0.183)	-0.487 (0.886)
CIM	2.011** (0.957)	1.567 (1.050)
Autocratic Political Institutions * CIM		1.241 (1.206)
Time Horizon	-6.861*** (2.579)	-6.858*** (2.579)
Development	0.047 (0.032)	0.040 (0.033)
Market Size	1.726*** (0.340)	1.759*** (0.342)
Growth Rate	0.040*** (0.009)	0.040*** (0.009)
Government Consumptions	2.398 (2.242)	2.062 (2.266)
Political Instability	-0.031 (0.035)	-0.032 (0.035)
Oil	0.066*** (0.012)	0.065*** (0.012)
Constant	-7.103*** (1.228)	-10.872*** (1.953)
$R^2$	0.10	0.10
$N$	1,524	1,524

Standard errors in parentheses

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

I perform several robustness tests in tables 3.2 and 3.3. In table 3.2, I present results using country fixed effects.<sup>26</sup> The overall results are essentially the same as the ones in table 1. The independent effect of *Autocratic Political Institutions* is positive and significant (model 4), which again supports the first hypothesis. The interaction model is presented in model 5. The interaction term *Autocratic Political Institutions x CIM* is not significant here. As mentioned

<sup>26</sup> Country fixed effects model can address an omitted variable bias by assuming the omitted variables are country specific and captured in different constant terms for each country. However, it also has a shortcoming that any time-invariant variables will be treated as identical to the constant terms, generating a multicollinearity problem.

before, however, the marginal effects can be statistically significant even if the coefficient on the interaction term is not significant. The marginal effects in figure 3.3 presents essentially the same result as figure 3.1. The effects of political institutions are positive and significant in countries with strong property right institutions, and the size of the effects increases as property right institutions become stronger. Using this alternative estimation technique, the empirical results continue to support the two hypotheses.

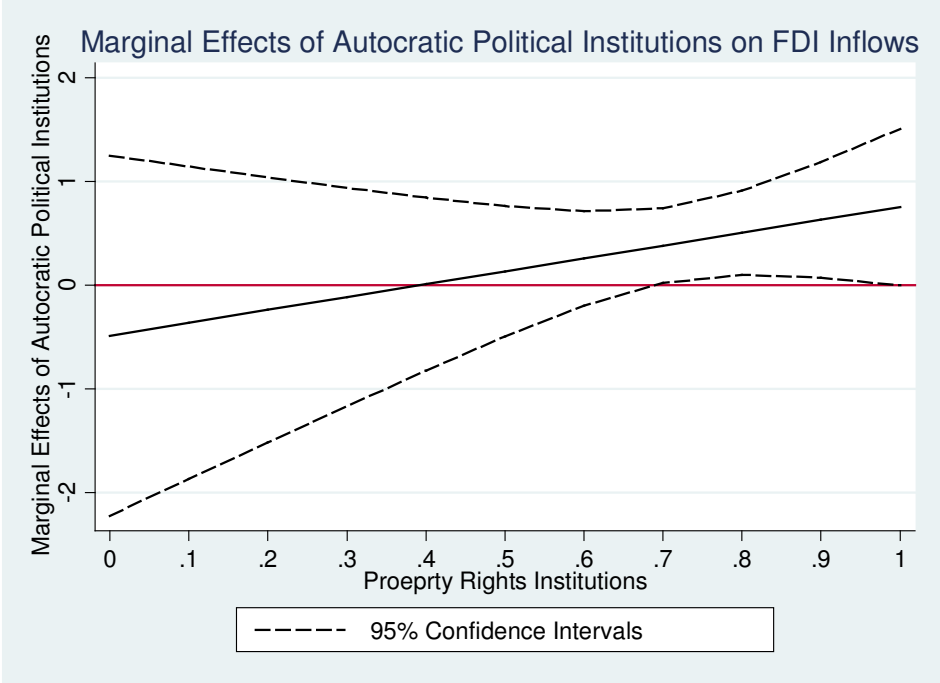


Figure 3.3 Marginal Effects of Autocratic Political Institutions on FDI Inflows (Fixed Effects)

Table 3.3 reports another robustness test results using alternative measures of key independent variables. First two columns (models 6 and 7) use an alternative measure of property rights institutions, and other two columns (models 8 and 9) present results using a different measure of autocratic political institutions. In model 6 and 7, I use International Country Risk Guide (ICRG) as a measure of property rights institutions as I did in chapter 2. ICRG is a subjective measure of property rights and political risks, which is based on an expert

survey. The downside of ICRG is the data coverage is somewhat limited. The estimation results using ICRG clearly support the two hypotheses. First, the coefficient of ICRG is positive and significant at 1% level (model 6), supporting the first hypothesis that autocratic political institutions increase FDI inflows, on average. In addition, the interaction between ICRG and political institutions is positive (model 7) and the marginal effects of the political institutions (figure 3.4) shows the same pattern as figure 1.

Table 3.3 Robustness Test - Different Measures

	Model 6	Model 7	Model 8	Model 9
Autocratic Political Institutions	0.984*** (0.326)	-1.388 (1.062)		
Single Party			1.128*** (0.273)	-2.572** (1.284)
ICRG	0.151*** (0.026)	0.079* (0.042)		
CIM			2.264*** (0.793)	1.539* (0.820)
Autocratic Political Institutions * ICRG		0.127** (0.055)		
Single Party * CIM				4.825*** (1.624)
Time Horizon	2.826 (3.804)	0.617 (3.842)	-0.469 (3.199)	-0.214 (3.180)
Development	0.088** (0.044)	0.077* (0.046)	0.145*** (0.040)	0.135*** (0.040)
Market Size	0.864*** (0.172)	0.848*** (0.178)	0.737*** (0.122)	0.726*** (0.123)
Growth Rate	0.019 (0.016)	0.022 (0.016)	0.019** (0.009)	0.019** (0.009)
Government Consumptions	1.554 (2.817)	1.856 (2.880)	1.038 (1.016)	0.778 (1.004)
Political Instability	0.045 (0.058)	0.040 (0.057)	-0.006 (0.032)	-0.007 (0.032)
Oil	0.012 (0.013)	0.017 (0.013)	0.020* (0.010)	0.021** (0.010)
Constant	-14.66*** (2.850)	-13.12*** (3.105)	-11.13*** (1.951)	-10.43*** (1.986)
$R^2$	0.13	0.14	0.10	0.11
$N$	747	747	1,524	1,524

Lastly, models 8 and 9 present estimation results using a different measure of political institutions. I employ a *Single Party* variable from the coding of Geddes (1999, 2003), which is updated by Wright (2008b) later. Geddes originally categorizes autocratic regimes in following way: personalist; military; single party; and hybrid of these the types. According to Geddes, single party regimes are those where “one party dominates access to political office and control over policy, though other parties may exist and compete as minor players in elections.” (Geddes 2003) Wright (2008b) updates the data to 2002 and added monarchies including Saudi Arabia, Morocco, Kuwait, and others. Conceptually, single party regimes are not exactly the same as regimes with multi party legislatures as they include both one party and dominant party (with other parties) regimes. However, as we can see in table 3.4, single party regimes tend to much more often have legislatures than any other types of autocracies. Thus, it is the closest category to the measure of political institutions used in the main estimation and worth performing a robustness test.

In model 8, the coefficient of *Single Party* is positive and significant at 1% level. This result is consistent with what previous estimations suggest. On average, autocratic countries ruling with a party system tend to attract more FDI inflows than others. According to model 8, countries with a party system attract about 112% more FDI inflows than other types of autocratic countries. The interaction hypothesis is tested in model 9. The direction of the interaction term is correct, positive, and it is significant at 1% level. Once again, I provide a marginal effect graph (figure 3.5) to see the conditional effects of *Single Party* on FDI inflows given the level of property right institutions. Figure 3.5 looks almost the same as the previous figures. The marginal effects of *Single Party* are positive and significant when property rights institutions are

strong. As expected, the level of property right institutions positively modifies the effects of *Single Party* on FDI inflows.

Table 3.4 Autocratic Institutions by Regime Type

Regime type	Mean Value of Autocratic Institutions
Single Party	0.60 (439)
Military	0.28 (146)
Monarchy	0.27 (148)
Personalist	0.29 (485)
Hybrids	0.39 (309)
Total	0.40 (1524)

The number of observations in parentheses.

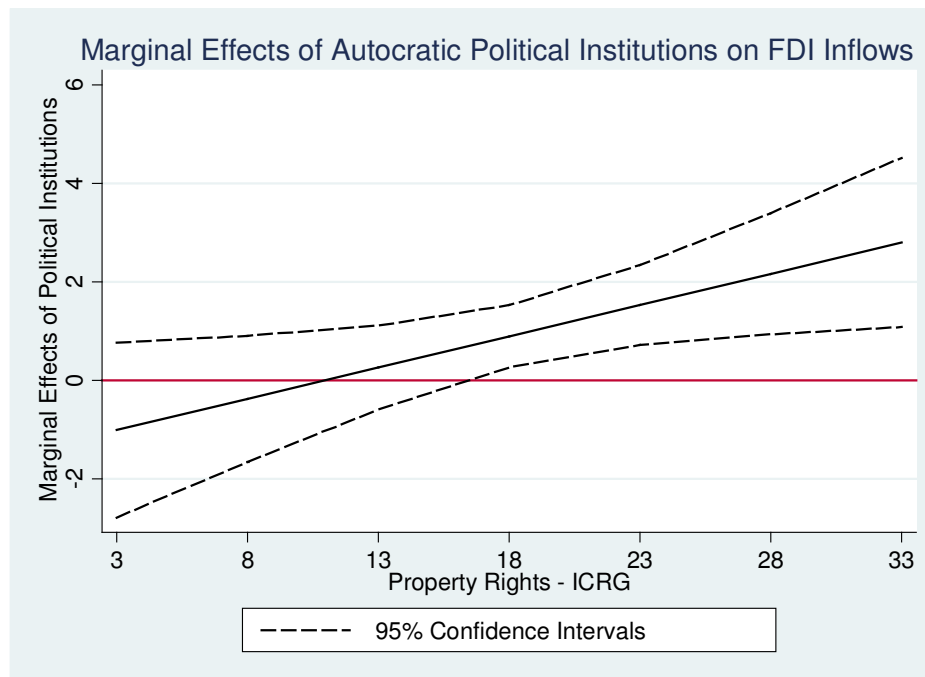


Figure 3.4 Marginal Effects of Autocratic Political Institutions on FDI Inflows (ICRG)

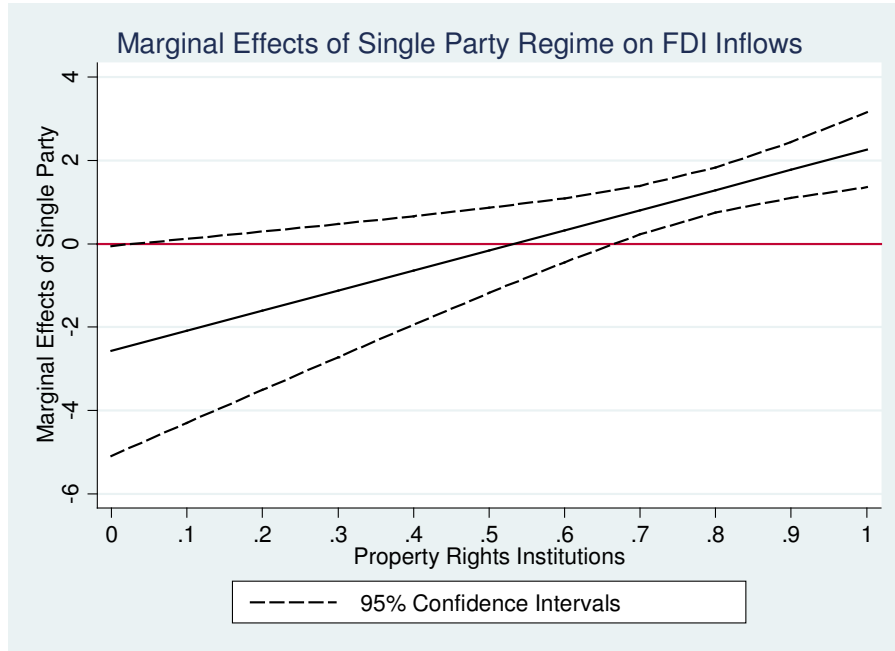


Figure 3.5 Marginal Effects Single Party Regime on FDI Inflows

### 3.6 Conclusion

What explains the variations of FDI inflows among autocratic countries? In this chapter, I focus on the role of political institutions in autocratic countries, and examine how they affect the likelihood of attracting FDI inflows. While a growing body of autocratic literature examines the role of the autocratic political institutions to explain various political and economic performances, studies examining FDI performance is scant at best.

By varying autocratic regimes based on the presence of legislatures, I find that autocratic countries with nominal democratic institutions attract more FDI inflows than ones without the institutions. In addition, the effects of the institutions are positively modified by the level of property rights institutions. Political institutions tend to increase FDI inflows unless property rights institutions are extremely weak. However, the marginal effects of property rights institutions remain positive and significant regardless of the presence of the political institutions.

One thing we may infer from the results is that while property right institutions can address the commitment problem (as shown in the previous chapter), autocratic legislatures do not seem to solve the commitment issue directly. It appears that foreign investors are more concerned whether their assets are protected or not, rather than whether host countries have legislatures.



## **CHAPTER FOUR**

# **INTERNATIONAL COMMITMENT INSTITUTIONS AND FDI INFLOWS IN AUTOCRATIC COUNTRIES**

### **4.1 Introduction**

In the previous chapters, I focused on the domestic side and examined how domestic institutional features can affect the level of FDI inflows host countries receive. However, the existence (or absence) of domestic institutions are not the only factors which influence the investment decision of MNCs. While host countries can commit themselves by relying on strong domestic institutions, they also can ‘import’ commitment institutions by joining international investment treaties. Recently, a growing body of literature has emphasized the role of international investment treaties, in particular, bilateral investment treaties (BITs) as an important determinant of FDI inflows. Scholars argue that BITs provide an institutional device by which host countries can address the commitment problem and posit that countries which agree to BITs are more likely to attract FDI inflows (Allee and Peinhardt 2011; Busse, Königer, and Nunnenkamp 2010; Büthe and Milner 2009; Egger and Pfaffermayr 2004; Haftel 2010; Kerner 2009; Neumayer and Spess 2005; Salacuse and Sullivan 2005).

Autocratic countries are by no means exceptions from this logic. While some of autocratic countries have better domestic commitment institutions than others, as I show in chapter two, it is still true that the overall qualities of domestic institutions are lower than the ones of democratic countries. Thus, it is worth examining the effects of international commitment institutions in autocratic countries—whether BITs have positive effects on FDI inflows—as an alternative mechanism to increase the credibility of their commitment to foreign investors. In addition, incorporating international commitment institutions enables us to raise

additional interesting research questions. Countries are exposed to multiple numbers of commitment institutions both at the domestic and international level. As the global economy has been integrated rapidly, it is not uncommon to observe countries with strong domestic institutions are also the members of international commitment institutions such as investment treaties. For example, since the first BIT was signed between Pakistan and Germany in 1959, more than 2500 BITs have been signed, and the signers entail countries such as Singapore, which provides strong domestic protections, as well as less developed African countries suffering from weak domestic institutions. However, existing research is surprisingly less concerned with the nexus among different commitment institutions. Given the multiple facets of the international environment, any conclusion which considers only one side is, at best, incomplete. In this chapter, I not only examine the effect of BITs in autocratic countries, but further seek to answer the question ‘How do different commitment institutions, singularly and in combination, affect FDI inflows?’ Precisely I examine the degree to which international commitment institutions attract FDI inflows, given the strength of domestic institutions. This is an important research question. Not only does this lead us to a better understanding of the conditions under which FDI inflows are likely to increase, it also allows us to answer a more interesting question regarding the need for international commitment institutions when a state already has strong property rights. By examining the interaction of two mechanisms, we can suggest to less developed countries more efficient strategies to benefit from abundant global capital.

Regarding the interaction of multiple commitment institutions, we can expect two competing arguments. On the one hand, domestic and international commitment institutions are expected to have substitutive effects on FDI inflows. Countries with weak domestic institutions may want to rely on international commitment devices to attract more foreign investment. Given

the lack of strong domestic commitment institutions, the role of international commitment institutions will be more important to foreign investors. This leads us to expect that the effects of international institutions are greater when domestic institutions are weak. On the other hand, domestic institutions can further strengthen the effects of international institutions. Considering the significant noncompliance costs (i.e. going to an international court) countries that weak domestic institution may face, countries with strong domestic institutions have greater incentives to enter international institutions, thereby further encouraging FDI inflows. In addition, foreign investors may also prefer 'hassle-free' partners. Even if there are two potential host countries which sign the same number of BITs, foreign investors will be more likely to choose the host with stronger domestic commitment institutions.

I test the interaction effects between a measure of domestic property rights and the cumulative numbers of BITs. In particular, in order to deal with the possibility that the two mechanisms are systemically linked, I also test using a Heckman selection estimation technique. Regardless of the estimation techniques, the results clearly support the idea that domestic and international commitment institutions are substitutive to each other. That is, the effect of the cumulative number of BITs which countries signed is negatively conditioned by the strength of domestic property rights. The effect of BITs on FDI inflows is positive and significant only when the host countries possess relatively weak domestic property rights and the size of the effect decrease with better property rights protection. This result is robust to different measures of domestic and international commitment devices.

This chapter consists of the following sections. In the next section, I briefly survey how the previous literature examines the factors inducing FDI inflows. This survey mainly focuses on domestic and international commitment institutions. Next, I turn my attention to the theory and

explain why the two mechanisms can be substitutive or complementary in inducing FDI inflows. The next two sections discuss the empirical models and report the results of my analysis.

#### **4.2 Increasing FDI Inflows by International Commitment Institutions**

As I discussed in the previous chapter, FDI is subject to political risks. Accordingly, MNCs favor an investment environment in which their assets are protected by any secure means. Countries with strong domestic institutions, therefore, have an advantage in attracting foreign investment. However, host countries can also enhance FDI inflows by joining international institutions. The mechanisms can be described in two ways. First, joining international institutions can be the way of sending signals that host countries are willing to respect market friendly policies and follow the rule of law. In order to send an effective signal which distinguishes those from other ‘cheap talkers,’ the signal should be costly. The logic of sovereign costs arguments is an example of sending costly signals. By participating in international organizations, countries trade off benefits between membership and sovereignty, accordingly revealing their seriousness more effectively.<sup>27</sup> Second, and more importantly, countries can commit themselves by locking into international agreements. Although countries sometimes have an incentive to break international legal rules to achieve immediate benefits, when breaking the rules, countries may suffer from higher reputation costs in the long run as international institutions provide *ex post* information on the members’ behavior. These reputational costs are much higher along with the fact that some international institutions are equipped with their own dispute settlement systems which determine whether member countries abide by given

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<sup>27</sup> The IMF is a typical institution which requires a high level of conditionality including fiscal austerity, tight monetary policy, and currency devaluation. Vreeland (2003) describes this tradeoff: “governments entering into an IMF program are required to follow these conditions and thus sacrifice some sovereignty in return for the IMF loan” (p. 12)

international agreements (Keohane 1984; Milgrom, North, and others 1990; Mitchell 1994; Morrow 1994; Schachter 1991; Simmons 1998, 2000).

Regarding FDI, past studies have focused on the role of international investment institutions such as PTAs or BITs.<sup>28</sup> Bütthe and Milner (2008), for example, argue that countries' participation in international trade agreements increases FDI inflows. They argue that participating in international institutions may be a credible commitment that the members protect liberal policies. As discussed above, they suggest that international trade institutions generally make contract violations easier to reveal to other member states. Trade organizations such as PTAs also often establish legal dispute settlement mechanisms which damage members' reputation for noncompliance. Their test shows that the cumulative number of PTAs that a country has signed has a positive impact on FDI inflows. More commonly, other research centers on the role of BITs on FDI inflows. A considerable number of studies suggest evidence that BITs increase FDI inflows (Allee and Peinhardt 2011; Egger and Pfaffermayr 2004; Haftel 2010; Kerner 2009; Neumayer and Spess 2005; Salacuse and Sullivan 2005).<sup>29</sup> BITs increases credibility of host countries' commitments due to their institutional features. They usually include protection provisions such as national treatment, most-favored nation status, and dispute settlement clauses. As discussed earlier, the inclusion of dispute settlement is particularly important as it raises potential reputation costs host countries would face, in turn, constraining host countries' short term incentives to violate BIT commitments (Allee and Peinhardt 2011).

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<sup>28</sup> Of course, PTAs are basically international trade organizations. However, as countries engage more in vertical investment, where trades and investment are closely linked, some PTAs specifically include investment clauses which can alleviate the time inconsistency problem (See Bütthe and Milner 2014).

<sup>29</sup> The causal mechanisms of how BITs increase FDI inflows contain both a signaling argument and commitment argument. For example, Neumayer and Spess (2005) emphasize the signaling logic such that signing BITs sends market friendly signals to (non-signing) third parties as well as functioning as commitment institutions between signatories. On the contrary, Bütthe and Milner (2009) see BITs as commitment institutions rather than signaling mechanisms. They argue that BITs can increase FDI inflows not only among signatories but more generally to the host country because reneging on a BIT incurs reputation costs and the legal provision of a BIT such as most favored nation status provides a commitment mechanism to the third parties.

Similarly, Elkins, Guzman, and Simmons (2006) also propose three reasons as to why BITs make commitments credible. First, BITs clarify host governments' obligations, thereby increasing *ex post* costs of non-compliance. Second, BITs directly involve host governments as treaty partners, so that host governments directly face reputation costs. Third, BITs contain an enforcement mechanism such as mandatory dispute settlement provisions which investors initiate independently of the approval of either the home or the host government. This third characteristic particularly enhances the credibility of host government as they give foreign investors rights to receive a legal remedy (Elkins, Guzman, and Simmons 2006).

#### **4.3 Multiple Commitment Institutions and FDI Inflows**

Based on previous research, we know that foreign investors are likely to make investments in countries which can resolve the commitment problem, thus host countries which are equipped with commitment devices are better able to attract foreign investments. However, I go one step further to argue that the domestic and international commitment mechanisms interact with each other, and jointly affect the likelihood of FDI inflows. In fact, this is not the first research examining the interactions between domestic and international investment institutions. For example, Hallward-Driemeier (2003) find that BITs do not substitute for domestic reforms, and Tobin and Rose-Ackerman (2005) conclude that BITs attract greater level of FDI when the host countries are relatively risky, but overall effects of BITs are weak. Neumayer and Spess (2005) criticize both Hallward-Driemeier (2003) and Tobin and Rose-Ackerman (2005) in that they are based on small sample country sizes (31 and 63, respectively). Using larger sample size, they provide some evidence that international commitment institutions substitute for the domestic institutional qualities. Similarly, Busse, Königer, and Nunnenkamp (2010) find the substitutive effect between domestic and international institutions, positing that findings by

Tobin and Rose Ackerman (2005) and Hallward-Driemeier (2003) are flawed as two studies do not interact BITs with FDI-specific regulations. However, these studies fail to provide clear causal mechanisms, but rather showing empirical results without strong theoretical grounds. I discuss how international institutions affect FDI inflow in the context of different level of domestic institutions. Regarding the interaction between the two types of commitment institutions, I propose two competing arguments.

#### **4.3.1 Complementary Argument**

First argument is that domestic and international institutions complement each other in attracting FDI inflows. That is, the effects of international commitment institutions in attracting FDI inflows will be larger among host countries which have strong domestic institutions. The costs of international commitment institutions can function as a selection mechanism which screens out some host countries from joining international institutions. That is, only those who can afford the expected costs can join international institutions (Downs, Rocke, and Barsom 1996; Von Stein 2005). For host countries, introducing international commitment institutions could be too costly, particularly when they do not have strong domestic institutions. It is not surprising to expect that countries which do not provide strong domestic property rights, for example, are more likely to be involved in investment disputes with foreign investors. These countries on average do not have a strong commitment to property rights and their judicial institutions are neither strong nor fair enough to protect foreign assets.

Of course, the legalization of investment treaties and accompanying sovereignty costs are the main mechanism to make commitments credible. Signing BITs, for example, implies that host governments are willing to sacrifice significant bargaining power over foreign capital owners within their jurisdiction, as the foreign company can simply bring any dispute to third

party arbitration without even obtaining the consent of the host government. Yet, even if such higher *ex-post* noncompliance costs make host countries send credible signals to foreign investors, the long term bad-reputational costs will offset the benefits of credible signaling, if violations are pervasive. For example, Allee and Peinhardt (2011) finds that while signing bilateral investment treaties attract more FDI inflows, the history of an international dispute has a negative impact on FDI inflows. That is, “BITs should increase FDI only if governments actually follow through on their BIT commitments” (Allee and Peinhardt 2011, 401). That is, *ex-post* non-compliance costs will be much higher for them.

From the perspective of foreign investors, host countries with good domestic institutions are more likely to follow the rule of law, therefore less likely to renege on the terms of the investment. Even though the legal provisions of BITs provide assurance mechanisms when it comes to experiencing *ex post* violations, these hassle-free investment partners (i.e. those with strong domestic property rights) further reduces potential transaction costs generated from unnecessary investment disputes. These costs entail the costs of hiring lawyer/arbitrators, time and efforts they put in to handle the investment disputes, and uncertainty over the arbitration award. When a dispute claim is registered at the International Centre for Settlement of Investment Disputes (ICSID), a set of fees such as Fee for Lodging Requests (\$25,000) and Administrative Charges (\$32,000) are charged, and importantly, additional costs (expenses of Conciliators, Arbitrators, Committee members, and attorneys) are charged depending upon the length of the arbitration.<sup>30</sup> This additional expense sometimes exceeds the total compensation investors receive from an arbitration award. For example, in 1998, Pope & Talbot, Inc. claimed

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<sup>30</sup> International Centre for Settlement of Investment Disputes , Schedule of Fees.  
<[Http://icsid.worldbank.org/ICSID/Index.jsp](http://icsid.worldbank.org/ICSID/Index.jsp)>



against Canada for the violation of NAFTA provisions.<sup>31</sup> While the tribunal awarded the company just \$461,566 as opposed their alleged damages of \$507 million, but total legal expenses were estimated at more than \$7.6 million since the disputes lasted more than four years (from 1998 to 2002). It is natural for MNCs to want to avoid unnecessary transaction costs, so that they would try to avoid host countries which have weak institutions even if those countries sign the same number of BITs as others. Put simply, the effects of international investment institutions on FDI inflows will be different depending upon the strength of domestic institutions.<sup>32</sup> On average, we will observe that countries with strong domestic institutions are likely to attract more investment than weakly institutionalized countries by joining international commitment treaties.

*H1. The effects of international investment treaties on FDI inflows are likely to be stronger among host countries which have **strong** property rights institutions.*

#### **4.3.2 Substitutive Argument**

The competing argument is that international commitment institutions substitute the domestic ones. Scholars have discussed the incentives of host countries to compensate the level of domestic institutions. Li (2006) for example, examines tax incentives offered by host countries to attract more FDI. He argues that “host countries that have weak property rights and low policy credibility tend to offer generous tax incentives to attract foreign capital.” Since

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<sup>31</sup> U.S Department of State <http://www.state.gov/s/l/c3747.htm>

<sup>32</sup> While my argument focuses more on commitment issue rather than the signaling capability of the host country for respecting foreign assets, the same conclusion can be made from a signaling theory context. The presence of strong domestic institutions also helps host countries to send more credible signals to foreign investors when it comes to entering international institutions. We can expect that the signals from those who have strong domestic institutions are much clearer than the mixed signals from the countries with weak domestic institutions. Given the presence of strong domestic institutions, foreign investors find it easy to distinguish true types of host countries – whether they will abide by international rules or not.

democratic countries have an advantage with credible commitments, he posits that non-democratic countries will be more likely to be associated with higher levels of tax incentives while more democratic countries tend to offer less generous tax incentives. This argument implies that a country is more likely to rely on other mechanisms to attract foreign investments when it lacks a means of making a credible commitment.

In general, commitment problems occur when one party is not sure whether another will renege on the contract to which they agree. When a certain contract is under the risk of promise breaking, the party wants to set up assurance mechanisms which incur negative costs for breach of the contract. Put differently, this implies that under the circumstance where the possibility of contract violations is low, the need for additional commitment institutions is not as strong as when the risk is high (Staton and Reenock 2010). The same logic can be applied to the relations between host countries and MNCs. FDI investments are concluded through contracts between host countries and MNCs. It is the MNCs who are concerned about states' contract violations. From the perspective of MNCs, the need for commitment devices depends upon the level of political risk the investment entails. That is, when host countries are more vulnerable to contract violations, MNCs will need more assurance devices to protect their assets. When a host country has strong property rights institutions, s are more likely to be insulated from experiencing violations as the host country already provides protection using existing strong domestic institutions. In turn, this reduces MNCs' need for additional commitment institutions such as BITs. On the contrary, in the absence of strong domestic institutions, we can expect that the role of international investment institutions should be more important to foreign investors. Facing the lack of strong domestic property rights institutions, MNCs will resort to commitment mechanisms provided by international investment treaties.

In sum, the effects of international commitment institutions on FDI inflows are modified by the level of domestic institutions, yet the two types of commitment institutions are associated negatively. If host country has strong domestic institutions, providing secure protection of foreign assets, then the effects of international commitment institutions will be reduced, since foreign investors as well as the host government find less reason to rely on other commitment institutions. By the same token, international commitment institutions, in my case BITs, will be more important to MNCs when the host country does not provide a domestic means through which to protect foreign capital from potential infringement. Put together, this reasoning allows us to expect a substitutive relationship between domestic and international commitment institutions in attracting FDI inflows.

*H2. The effects of international investment treaties on FDI inflows are likely to be stronger among host countries which have **weak** property rights institutions.*

#### **4.4 Research Design**

I employ a time series cross sectional (TSCS) design covering all autocratic countries from 1970 to 2011. Since a TSCS design may suffer from severe heteroskedasticity, autocorrelation, and contemporaneous correlations, I use panel-corrected standard error (PCSE) which is employed by Beck and Katz (1995) with AR1 correlation structure. In addition, I further tested the same model using different estimation techniques including country-fixed model and selection model. In particular, my theory implies that a host country's decision to join international institutions may not be independent from the level of domestic institutions. I take into account this selection issue by adopting a Heckman selection estimation technique. I first estimate whether the level of domestic protection is more or less likely to make host countries

sign international investment treaties, and then examine how the effects of international treaties on FDI inflows is conditioned by domestic institutions. All independent variables are lagged by one year to prevent a potential endogeneity effect. The data covers all non OECD countries from 1970 to 2008.<sup>33</sup>

I use the same dependent variable as the previous chapters. I use the natural log of FDI inflows measured in \$US, which accounts for zero and negative values using the formulation introduced in chapter 2. My key independent variables include both domestic and international commitment institutions. My primary measure of domestic commitment institutions is the same, Contract Intensive Money (Clague, Keefer, Knack, and Olson 1999), and I further perform a robustness test using International Country Risk Guide (PRS 2011). At the international level, I use the cumulative number of BITs as another primary independent variable. Following existing research I use the cumulative numbers of BITs which countries sign (Allee and Peinhardt 2011; Neumayer and Spess 2005). However, it may not be reasonable to treat that all BITs are the same. It is true that some BITs include more provisions which can generate higher *ex-post* costs (Allee and Peinhardt 2011), and it is hard to imagine that bilateral investment treaties with developing (i.e. capital importing) countries would have the same effect as the treaties with developed countries. The former, what we call South-South BITs would not be as strong as South-North BITs, if BITs are designed to deliver one's credible commitment to foreign investors. So, while I use the same measure of BITs to be consistent with previous research, I also show that the effects of BITs on FDI inflows are different depending upon the partners with which you sign. The original variable comes from UNCTAD, International Investment

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<sup>33</sup> It is well known that the causal process of FDI inflows among developed countries is quite different from the one among developing countries. Data for many of my variables are not available before 1970.

Agreements. I test my arguments, regarding a substitutive versus a complementary effect using the following model.

$$\ln(\text{FDI inflows})_t = \beta_0 + \beta_1 \text{Property Rights}_{t-1} + \beta_2 \text{BITs Signed}_{t-1} + \beta_3 (\text{Property Rights} \times \text{BITs Signed})_{t-1} + \text{Controls}_{t-1} + e$$

I include control variables Market Size, Growth Rate, Development Level, Domestic Political Stability, Government Consumption, and Natural Resources Dependency.<sup>34</sup> If the cumulative number of BITs substitutes for domestic property rights (H1), then the coefficient on the interaction term ( $\beta_3$ ) should be negative and significant. This implies that the marginal effect of BITs on FDI inflows ( $\beta_2 + \beta_3 \text{Property Rights}$ ) decreases as the strength of property rights increases. Alternatively, as the complementary proposition predicts, if entering international commitment institutions have greater effects among those who have strong domestic institutions, then the coefficient on the interaction term ( $\beta_3$ ) should be positive and significant. In this case, the marginal effect of BITs on FDI inflows ( $\beta_2 + \beta_3 \text{Property Rights}$ ) increases as property rights protection increases (and vice versa).

#### 4.5 Empirical Results

Table 4.1 presents the main empirical results including all BITs from 1970 to 2011. On the whole, the findings support the substitutive hypothesis that the effects of international commitment institutions on FDI inflows decline with the strength of the domestic commitment institutions. If a country has strong domestic institutions, it attracts less FDI inflows by signing a BIT compared to the one with weak domestic institutions. As the substitutive hypothesis

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<sup>34</sup> Please see the chapter 2 for the detailed descriptions of the variables.

suggests, foreign investors seem to value BITs more highly when they are investing in countries which do not provide strong domestic institutions to protect their assets.

I begin with the results reported in model 1. In model 1, I only include a property right institution variable along with control variables. As the chapter 2 suggests, property rights protection is positively associated with the amount of FDI inflows. Among control variables, *Development*, *Market Size*, and *Growth Rate* are positively correlated with FDI inflows. In the second model, I include the number of BITs to see the independent effect of BITs. The coefficient of BITs is positive and statistically significant at 1% level, supporting the idea that countries can increase FDI inflows by signing BITs (Allee and Peinhardt 2011; Egger and Pfaffermayr 2004; Haftel 2010; Kerner 2009; Neumayer and Spess 2005; Salacuse and Sullivan 2005). Next, I include both variables in model 3. My purpose is to examine the additive effect of the key independent variables as long as to check the sensitivity of the model. Although the sizes are smaller, the coefficients of both property rights and BITs remain positive and statistically significant.

Model 4 reports the main finding of the chapter. The interaction term between property rights institutions and BITs is negative, accordingly the marginal effect of BITs (i.e.  $0.26 + -0.22 * \text{Property Rights}$ ) decreases with the increase of the property rights index. Note that the marginal effect is still positive as the property rights institutions range from zero to one, but the magnitude of the effect declines with the increase of the property rights index. Substantively, this means that host countries experience more FDI inflows as they sign more BITs, however additional gains by signing a BIT are negatively affected by the strength of domestic institutions. As an illustrative example, we can contrast two countries which have different levels of domestic property rights protection. The finding in model 4 predicts that even if those two countries sign

the same number of BITs, the average FDI inflows they receive will be different. The country with weak property rights will be able to attract more FDI inflows than the country with strong property rights institutions.

Table 4.1 Interaction between Domestic and International Institutions (PCSE Model)

	Model 1	Model 2	Model 3	Model 4
Property Rights	3.409*** (0.687)		2.865*** (0.633)	4.168*** (0.658)
BITs Signed		0.076*** (0.008)	0.068*** (0.008)	0.261*** (0.051)
Property Rights*BITs				-0.226*** (0.061)
Development	0.085*** (0.015)	0.062*** (0.014)	0.047*** (0.013)	0.055*** (0.013)
Market Size	0.648*** (0.080)	0.390*** (0.080)	0.421*** (0.083)	0.430*** (0.082)
Growth Rate	0.014* (0.008)	0.013* (0.007)	0.015* (0.008)	0.014* (0.008)
Government Consumption	0.008 (0.014)	-0.002 (0.013)	0.002 (0.014)	0.003 (0.014)
Political Instability	-0.053 (0.033)	-0.040 (0.032)	-0.020 (0.030)	-0.016 (0.031)
Oil	1.409 (0.875)	0.868 (0.787)	1.387* (0.802)	1.179 (0.771)
Constant	-9.759*** (1.514)	-3.580*** (1.332)	-6.150*** (1.581)	-7.376*** (1.592)
$R^2$	0.07	0.09	0.11	0.12
$N$	2,192	2,293	2,214	2,214

Panel corrected standard errors in parentheses

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

The main finding in model 4 can be examined more precisely in figure 4.1, where I present the marginal effects of BITs on FDI inflows under the different levels of property rights institutions. We can clearly see that BITs have significant (i.e. where the 95% confidence interval is greater than zero) and positive effects on FDI inflows throughout the every level of property rights index. However, it is also apparent that the magnitude of the effect decreases as

property rights become stronger. When an average country (with 0.76 value on the property rights index) signs a BIT, it is expected to increase its FDI inflows by 8.9 %. However, if a country whose property rights score is one standard deviation below the average (i.e. 0.6) signed a BIT, then the expected effect would increase by 3.6 percentage points. That is, this country is expected to attract 12.5% more FDI inflows comparing the country which does not sign a BIT.

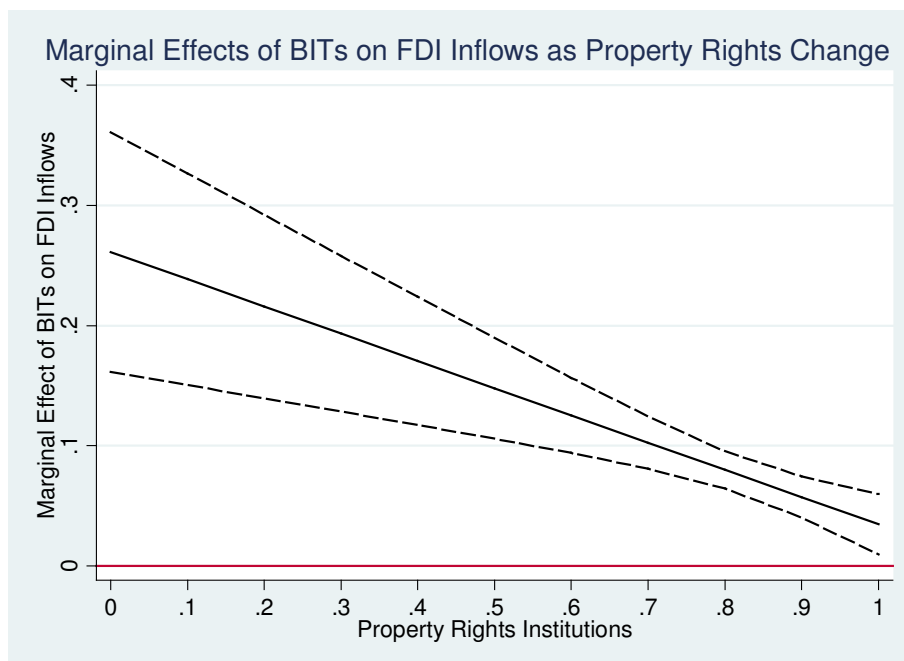


Figure 4.1 Marginal Effects of BITs on FDI Inflows

In order to assess whether the results in table 4.1 depends upon specific measures or estimation techniques, I re-estimate the main model (model 4 in table 4.1) using different measures and modeling techniques. table 4.2 to 4.4 shows the results of the robustness check estimations. In short, all of results support the substitutive hypothesis.

Table 4.2 presents the results using a country fixed effects model. Country fixed effects model can control for time-invariant, country-specific omitted variables. The downside of the model is it would not work well with the data for which the variable changes slow (or little) over



time. Model 5 reports the additive model first. The results are the same as model 3—both property rights institutions and BITs are positively correlated with FDI inflows. My main model is shown in the second column where I add an interaction term. The finding is essentially the same as model 4: the interaction term is negative. While the overall marginal effect of BIT on FDI inflows is positive, the magnitude of the marginal effect declines with the increase in the strength of property rights institutions. This finding again supports the substitutive hypothesis.

Table 4.2 Robustness Test – Country Fixed Effects

	Model 5	Model 6
Property Rights	1.545*	1.906**
	(0.876)	(0.889)
BITs Signed	0.050***	0.168***
	(0.006)	(0.051)
Property Rights*BITs		-0.133**
		(0.057)
Development	0.025	0.035**
	(0.016)	(0.016)
Market Size	2.032***	1.789***
	(0.287)	(0.305)
Growth Rate	0.030***	0.029***
	(0.008)	(0.008)
Government Consumption	0.062***	0.060***
	(0.016)	(0.016)
Political Instability	-0.086***	-0.085***
	(0.033)	(0.033)
Oil	3.499***	3.138***
	(0.881)	(0.893)
Constant	-30.911***	-27.456***
	(4.332)	(4.574)
$R^2$	0.48	0.49
$N$	2,214	2,214

Standard errors in parentheses

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Table 4.3 Robustness Test – PCSE Model with Different Measures

	Model 7	Model 8	Model 9	Model 10
BITs Signed	0.064*** (0.010)	0.103* (0.058)	0.072*** (0.008)	0.079*** (0.009)
Property Rights (ICRG)	0.116*** (0.023)	0.127*** (0.025)		
ICRG*BITs Signed		-0.002 (0.002)		
Veto Players (Polcon)			1.393*** (0.486)	1.910*** (0.609)
Veto Players*BITs Signed				-0.049* (0.027)
Development	0.032** (0.015)	0.034** (0.014)	0.064*** (0.017)	0.063*** (0.017)
Market Size	0.515*** (0.143)	0.514*** (0.143)	0.410*** (0.083)	0.407*** (0.082)
Growth Rate	0.016 (0.013)	0.016 (0.013)	0.014* (0.007)	0.014* (0.007)
Government Consumption	0.008 (0.028)	0.009 (0.028)	-0.001 (0.013)	-0.002 (0.013)
Political Instability	0.007 (0.057)	0.007 (0.057)	-0.034 (0.034)	-0.033 (0.034)
Oil	0.561 (1.128)	0.473 (1.079)	0.640 (0.752)	0.640 (0.750)
Constant	-7.726*** (2.479)	-7.959*** (2.454)	-4.003*** (1.390)	-3.975*** (1.387)
$R^2$	0.10	0.10	0.09	0.09
$N$	1,112	1,112	2,227	2,227

Panel corrected standard errors in parentheses

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

In table 4.3, I report different robustness tests in which I utilize alternative measures of property rights institutions. In model 7 and 8, I employ a property rights index from the PRS Group's International Country Risk Guide (PRS 2011), which I used in a previous chapter. As a reminder, ICRG is a composite measure which consists of four components capturing investment profile, bureaucratic quality, corruption, and law and order. With this alternative measure of

domestic property rights, the result is essentially the same as the main findings. The interaction term of the model 8 is negative, but not statistically significant. However, the marginal effect of BITs on FDI inflows is significant at 10% level, showing the same pattern: the effect of BITs declines with the increase of ICRG scores. In model 9 and 10, I use the number of veto players as a measure of domestic commitment institutions. According to (Henisz 2000) countries with a higher number of veto players can credibly commit to foreign investors as more veto players tend to deter ex-post policy changes. Using the number of veto players as an alternative measure, estimation results in model 9 and 10 support the substitutive hypothesis again. Countries can attract more FDI inflows by signing a BIT, but it is more effective to those host governments who have weak domestic institutions.

Lastly, I further test the model with different specifications. In model 11 and 12 of table 4.4, I reestimate the main model (i.e. model 4) only with BITs signed between my autocratic country sample and OECD countries. The general findings are the same as the previous model that BITs increase FDI inflows and the marginal effect of signing BITs decreases as property rights become stronger. Not surprisingly, compared with models 3 and 4, the results clearly indicate that the overall effect of BITs now increases. In the additive model (model 11), signing a BIT with an OECD country boosts FDI inflows by 21%, as opposed to 6.8% which the all BITs estimation (model 3) predicts. Furthermore, the marginal effect of BITs with OECD countries also shows a stronger effect. If a country with the average score of property rights index (i.e. 0.76) signs a BIT with an OECD country, then the expected effect will be about 0.23, which is a 23% increase in FDI inflows. However, if we consider a country at one standard deviation below the average (i.e. 0.6), then an additional BIT will lead to 28% increase in FDI inflows. These are in sharp contrast with 8.9% and 12.9% increases in the main model (model 4), respectively.

This result is not very surprising. In fact, very little FDIs are made between South and South countries. Furthermore, it is possible that autocratic countries may sign BITs with South countries, not for the same reason that they sign with North countries (Jandhyala, Henisz, and Mansfield 2011).<sup>35</sup>

Table 4.4 Robustness Test – PCSE Model with OECD BITs and Outlier Controlling

	Model 11	Model 12	Model 13	Model 14
Property Rights	2.915*** (0.637)	4.041*** (0.738)	2.846*** (0.629)	4.100*** (0.665)
BITs Signed			0.073*** (0.010)	0.257*** (0.054)
Property Rights*BITs Signed				-0.221*** (0.067)
BITs Signed (OECD only)	0.031** (0.014)	0.039*** (0.014)		
Property Rights*BITs (OECD only)		-0.418** (0.190)		(0.024)
Development	0.048*** (0.013)	0.052*** (0.013)	0.045*** (0.013)	0.055*** (0.013)
Market Size	0.418*** (0.082)	0.421*** (0.082)	0.400*** (0.086)	0.406*** (0.086)
Growth Rate	0.015** (0.008)	0.015* (0.008)	0.015* (0.008)	0.014* (0.008)
Government Consumption	0.006 (0.014)	0.005 (0.014)	0.001 (0.014)	0.001 (0.014)
Political Instability	-0.017 (0.030)	-0.015 (0.031)	-0.017 (0.031)	-0.014 (0.031)
Oil	1.435* (0.801)	1.348* (0.787)	1.378* (0.791)	1.193 (0.764)
Constant	-6.344*** (1.569)	-7.278*** (1.624)	-5.830*** (1.640)	-6.938*** (1.654)
$R^2$	0.11	0.11	0.09	0.10
$N$	2,214	2,214	2,190	2,190

Panel corrected standard errors in parentheses

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

<sup>35</sup> They argue that South-South BITs are signed “is viewed as legitimate and in keeping with accepted norms or standards, rather than as a solution to a time inconsistency problem.” (Jandhyala et al. 2011, p10)

The last two columns report the results excluding a potential outlier, China. While the average number of BITs of the sample is 7.8, China has more than 120 BITs signed as of 2010. In addition, it is well-known that China is among the star performers in the global economy, including FDI inflows. So, it is possible that China cases distort the overall estimation results. Yet, the findings in model 13 and 14 are essentially the same as the main results (model 3 and 4), suggesting that the overall estimations are not driven by this outlier, but clearly support the substitutive hypothesis.

Table 4.5 Robustness Test - Heckman Selection Model (top)

Outcome Model: FDI inflows	Model 15	Model 16
Property Rights	1.549* (0.887)	2.968** (1.249)
BITs Signed	0.045*** (0.008)	0.135** (0.058)
Property Rights*BITs		-0.105 (0.066)
Development	0.025* (0.014)	0.031** (0.014)
Market Size	0.150 (0.098)	0.190* (0.100)
Growth Rate	0.036* (0.020)	0.034* (0.020)
Government Consumption	0.010 (0.016)	0.013 (0.016)
Political Instability	0.240*** (0.071)	0.228*** (0.071)
Oil	-2.029*** (0.755)	-2.044*** (0.747)
Constant	1.677 (1.995)	-0.381 (2.362)

Table 4.5 Robustness Test - Heckman Selection Model (bottom)

Selection Model: Sign on treaties		
Property Rights	0.870*** (0.237)	0.870*** (0.237)
Development	0.024*** (0.005)	0.024*** (0.005)
Market Size	0.201*** (0.022)	0.201*** (0.022)
Growth Rate	0.005 (0.005)	0.005 (0.005)
Government Consumption	-0.001 (0.004)	-0.001 (0.004)
Political Instability	-0.090*** (0.019)	-0.090*** (0.019)
Oil	0.636*** (0.224)	0.636*** (0.224)
Non-sign years	-0.321*** (0.033)	-0.321*** (0.033)
Time spline 1	0.000*** (0.000)	0.000*** (0.000)
Time spline 2	-0.004*** (0.001)	-0.004*** (0.001)
Time spline 3	0.000 (0.001)	0.000 (0.001)
Constant	-3.898*** (0.421)	-3.898*** (0.421)
Lamda	-1.600*** (0.351)	-1.417*** (0.367)
N	2,359	2,359

Standard errors in parentheses

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

#### 4.6 Selection Issue?

As I discussed earlier, the decision to join international investment treaties may not be independent of the level of domestic property rights protection. Both arguments entail the possibility that the decision is affected by the strength of domestic institutions, while the causal direction is opposite. First, according to the substitutive hypothesis, countries with weak

domestic institutions may want to resort to international institutions to compensate for their weak domestic capability. If this is correct, then the propensity to sign BITs should be negatively associated with the level of property rights protection. The complementary hypothesis, on the contrary, argues that countries with weak domestic institutions are reluctant to join international institutions because potential costs of *ex post* violations deter their entrance. While the expectations are quite different, this implies that we have to separate the stage of signing BITs from the effects of BITs on FDI stage. That is, countries may sign BITs only when certain domestic conditions are met. In order to handle this potential selection effect, I employ a Heckman model and test the hypotheses again.

Table 4.5 presents empirical results using a Heckman selection model. The outcome stage dependant variable is the same, FDI inflows. For the selection stage dependent variable I code one when a host country signs a BIT. I also control for time-dependency in the selection stage by employing the Binary Time-Series Cross Section utility (Beck, Katz, and Tucker (1998). The selection stage needs to have at least one variable which does not appear in the outcome stage. By adding these variables the model is identified (Sartori 2003, 112). The results are somewhat interesting. First, from the selection equation, we can see that property rights increase host countries' propensity to join BITs. This seems to be consistent with the complementary hypothesis, rather than substitutive hypothesis. Autocratic countries tend to join BITs when they have better domestic institutions. An even more interesting finding can be found in the outcome stage. Contrary to the selection stage, the outcome model still supports the substitutive hypothesis. The interaction term is negatively but slightly less than 10% significance level. However, the marginal effect of BITs on FDI inflows is significant on the every level of property rights, while the magnitude of the effect is smaller compared with my previous results (figure

4.2). Substantively, signing a BIT leads to a 5.6% and 7.3% increase of FDI inflows for the country with average property rights score and the one with one standard deviation below the average, respectively. Even after controlling for the selection issue, the result supports the substitutive hypothesis like the previous models suggest.

Why then do I have such mixed results between the selection and outcome stage? First we may think about the nature of the sample. In this estimation, I only test with autocratic countries. Compared to democratic countries, which on average are exposed to the global economy and market friendly policies, the expected costs of joining BITs may be much higher for autocratic countries. For more comprehensive tests, we may need to include (non-OECD) democratic samples as well. Under this setting, we can draw more interesting hypotheses such that 1) if countries with strong institutions are more or less prone to join BITs; 2) if countries are more or less prone to sign BITs depending on the size of ex-post contract violation costs (e.g. BITs with OECD countries, BITs with strong punishment provisions). The second possibility is a divergence of perspectives between host governments and foreign investors. Although the host governments may want to join based on their motivations and incentives, foreign investors may not take those conditions into their investment calculations. For foreign investors, what matters the most is whether their assets will be protected or not. As long as there are credible commitment institutions, whether international or domestic, which can safeguard their investments from potential expropriation, the motivation or incentives of host countries would not be very important. Accordingly, from the perspectives of foreign investors, a commitment institution is simply important when the likelihood of violation is high as the substitutive hypothesis suggests. I think this will be an interesting future research topic.



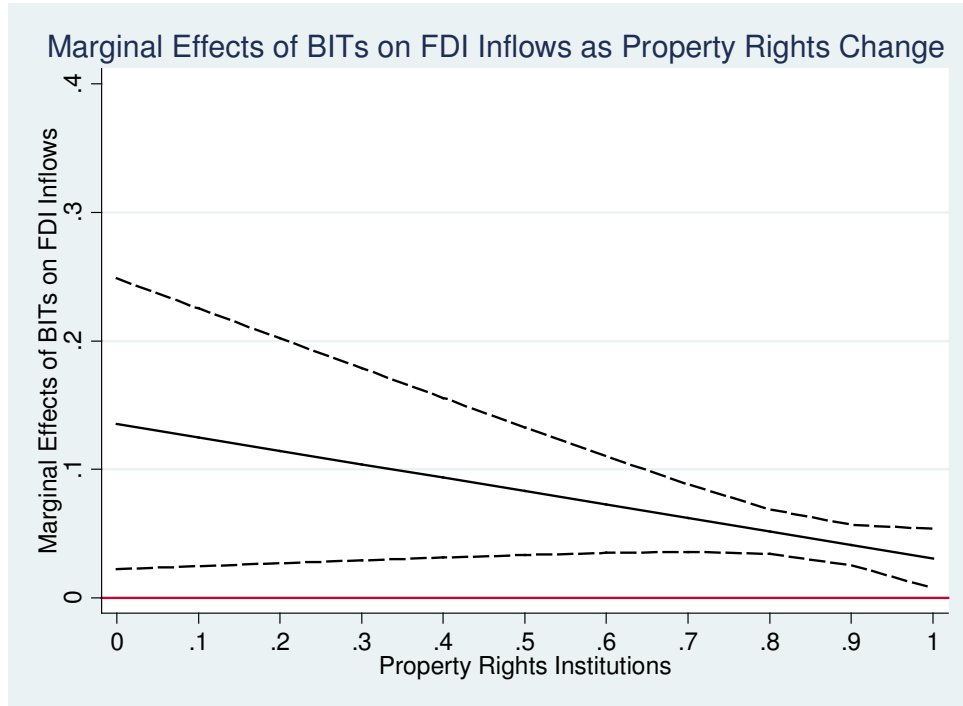


Figure 4.2 Marginal Effects of BITs on FDI Inflows (Selection Model)

#### 4.7 Conclusion

As the global economy has been rapidly integrated, the importance of FDI in the national economy has been underscored. Not only do FDI inflows provide a means of accessing abundant foreign capital, but they also help the economies of host countries directly by transferring new technologies, by creating new jobs, and so on. Thus, it is not surprising that uncovering the conditions inducing FDI inflows has been an important research question among scholars. While existing research is correct in attempting to address this issue by relying on the role of commitment institutions to reduce the time-inconsistency issue, they are incomplete in failing to account for the joint effects of the multiple commitment institutions which countries can access. Considering the importance of FDI in the national economy and scholars' interests in FDI inflows, it is surprising that none of previous research seriously addresses this question.

In this chapter, I examine how international and domestic commitment institutions affect FDI inflows jointly. Regarding the interaction between the two commitment mechanisms, two competing explanations are possible. On the one hand, given the lack of a strong domestic commitment device, foreign investors may find the role of international commitment institutions more useful. That is, the value of credible commitment institutions can be strengthened when there is no alternative. This leads us to expect that the effects of an international commitment device will be stronger among those who have weak domestic institutions. On the other hand, it is also possible that the effects of international investment institutions are strengthened under strong domestic commitment institutions. Foreign investors may prefer hassle-free partners. Even if two potential host countries have signed the same number of BITs, given the relative higher possibility of noncompliance in the country with weak domestic institutions, foreign investors may want to minimize potential transaction costs by making investments in countries with strong domestic institutions.

The empirical results clearly support the substitutive proposition even after controlling for a potential selection issue. This study finds that strong property rights and participation in international investment treaties together do not effectively induce more foreign investment. Foreign investors tend to discount the value of international commitment institutions when the host country already has strong domestic alternatives.

## CHAPTER FIVE

### CONCLUSION

Under what conditions do some autocratic countries attract more FDI than others? Autocratic countries' consistent performance in attracting FDI is an interesting puzzle both at the theoretical and empirical level. In recent decades, more than half of top (non-OECD) FDI host countries have been non-democratic. Some countries such as China and Singapore, which are not democratic, have been attracting huge amounts of FDI inflows.

Scholars of FDI studies are generally concerned with the commitment problem a host government faces. FDI is a relatively fixed asset, and thus it is hard to retrieve once the investment is made. While the initial bargaining power is on the investor side which makes the decision where to invest, huge sunk costs resulting from the immobility of the assets shifts the balance of bargaining power. Since the host government may have an incentive to renege on the initial contract, foreign investors prefer to invest their money in countries where the political risks are low. Among others, the institutions to protect property rights and enforce contracts are necessary for assuring foreign investors, accordingly increasing FDI inflows. Focusing on the domestic side, recent empirical FDI studies tend to argue that democratic countries have an advantage in attracting FDI because they are more likely to provide such institutions. Nevertheless, we persistently observe very high performing autocratic countries.

The importance of the credible commitment is a starting point for this dissertation. In three essays, I argue that some autocratic countries can credibly commit to protect foreign assets by utilizing domestic and international institutions. In chapter two, I focus on property rights institutions in autocratic countries. Building on Olson's (1993) concept of Stationary Bandits, I posit that autocrats with long time horizons provide stronger property rights institutions, by

which they can attract more FDI inflows. By developing the property rights institutions, autocrats with long time horizons expect long term gains from FDI, which outweigh short term benefits from contract violations. In addition, autocratic regimes with long time horizons have domestic confidence in maintaining their regime, and are thus more likely to implement liberal economic policies, while minimizing the concern of political liberalization which FDI and economic development may lead. Using an error correction model covering all autocratic countries from 1970 to 2008, I find that autocratic countries with long time horizons have strong property right institutions and autocratic countries with the property rights institutions attract more FDI inflows. Substantively, the estimations suggest that an increase of one standard deviation in the property rights index leads to an almost 40% increase in FDI inflows in the long run.

In chapter three, I turn my interest to political institutions in autocratic countries. By political institutions, my focus is on nominal democratic institutions such as parties and legislatures in autocratic regimes. Recently, a growing body of literature examines the effects of autocratic legislatures and parties on various political and economic outcomes in autocracies, but the research investigating their effects on FDI inflows is scant at best. I posit that political institutions can increase the level of FDI inflows for several reasons. First, I expect that autocrats relying on relatively large constituencies need to distribute more rents, and thus have stronger preferences for foreign investment. Second, I argue that autocratic legislatures and parties can deliver more information about domestic politics, which in turn reduces the uncertainty of MNCs. Last, autocratic legislatures can play the role of veto players, producing more stable investment environments. In addition, I further argue that the effects of the political institutions are even conditioned on the quality of other commitment institutions such as property rights institutions.

The empirical results are consistent with what I expect. Using Gandhi (2008)'s measure of autocratic political institutions, I find that the effects of autocratic legislatures on FDI inflows are positive and significant, and the size of the effect increases as the level of the property right institutions increases. I also find evidence that while property rights institutions are sufficient conditions for foreign investments, autocratic political institutions are not.

In chapter four, I extend the scope of the study to the international level. In this essay, I examine the role of international commitment institutions as well as their interaction with domestic property rights institutions. My main concern is the bilateral investment treaty (BIT). BITs are designed to facilitate FDI among signers, including protection provisions such as national treatment, most-favored nation status, and dispute settlement clauses. Since the host countries would pay higher *ex-post* costs if they renege on initial agreements, signing a BIT can attract more FDI by credibly tying the host government's hands. Regarding the interaction effects, I propose two competing hypotheses. First, BITs and domestic property rights institutions may be complements. The effects BITs on FDI inflows may be positively modified by the strength of domestic property rights institutions. Considering the significant costs of noncompliance, countries with strong domestic institutions have greater incentives to enter international institutions. Second, BITs and domestic property rights institutions may be substitutes, meaning that BITs will have larger effects on FDI inflows in those countries with weak domestic property rights institutions. From the perspective of MNCs, countries with strong domestic institutions are less likely to expropriate foreign investments. And so, the value of additional commitment institutions (i.e. BITs) is not so great in this type of country. The empirical result, covering all autocratic countries from 1970 to 2011, clearly supports the latter, substitutive argument. The result is very robust to various measures and estimation techniques.

This dissertation sheds light on recent debates on the relationship between regime type and FDI inflows. Scholars have mixed findings on the effect of regime type on FDI inflows. Some argue that autocratic regimes have a positive impact on FDI inflows (e.g. Resnick 2001), but others suggest evidence that democratic regimes attract higher levels of FDI inflows (Ahlquist 2006; Choi and Samy 2008; Feng 2001; Jensen 2003). There are still others who do not find any strong correlation between regime type and FDI (Harms and Ursprung 2002; Oneal 1994) or find that the relationship is mixed (Li and Resnick 2003). This research, however, suggests that what matters to foreign investors is not the regime type *per se* but institutional features of the host country. As long as the host country can provide an institutional assurance mechanism, foreign investors will not be concerned whether the host government has fair elections or elected legislators. Considering the importance of foreign capital in the developing world, this provides a significant economic implication for the development strategy of non-democratic countries. Of course, this is not to say that the quality of the commitment institutions have nothing to with regime type. As previous studies suggest, democracy, on average has better institutional quality. However, we have to focus more on the core logic of FDI inflows -- the role of institutions -- and also have to be open to the possibility that better institutions are not the exclusive property of democratic countries. Thus, it would be desirable to shift the debate on the effect of regime type on FDI inflows in a new direction by attempting to evaluate the institutional quality host countries possess. This approach will provide a more accurate answer as to why previous research has produced such mixed findings. This study enhances our understanding of autocratic countries and rejects the idea that autocratic countries must democratize to increase FDI inflows (Choi and Samy 2008).

Lastly, I would like to briefly mention my future research plan based on this project. In the future, I intend to further this project by examining another set of domestic factors which could determine the inflow of FDI. The role of asset mobility has been extensively discussed in the field of comparative politics (e.g. Boix 2003), and I will extend that research to the study of FDI as it naturally provides circumstances under which commitment institutions are more or less necessary. More precisely, depending upon the type of FDI inflows - whether host countries depend on immobile FDI inflows (e.g. investments on agricultural or raw material industries) or more mobile FDI inflows (e.g. service industries), the need for commitment institutions and the protection of foreign assets will be evaluated differently. I expect that foreign investors will be less dependent on commitment institutions as more mobile assets form a larger part of their FDI inflows. Second, I will examine the effects of FDI inflows on domestic politics in autocracies. While a large body of research examines the causes of FDI inflows, surprisingly few have examined their effects. International business studies usually focus on the economic consequences of FDI such as whether FDI positively affects economic growth. However, none of previous literature, including the political science literature, examines the political consequence of FDI. Building on recent empirical studies which argue that unearned income (i.e. foreign aid, natural resources) provide resources to dictators by which they can increase their survival rates, I expect that dictators with incomes from foreign investors will have similar political fates.

# APPENDIX

## FOREIGN DIRECT INVESTMENT, COMMITMENT INSTITUTIONS, AND TIME HORIZON

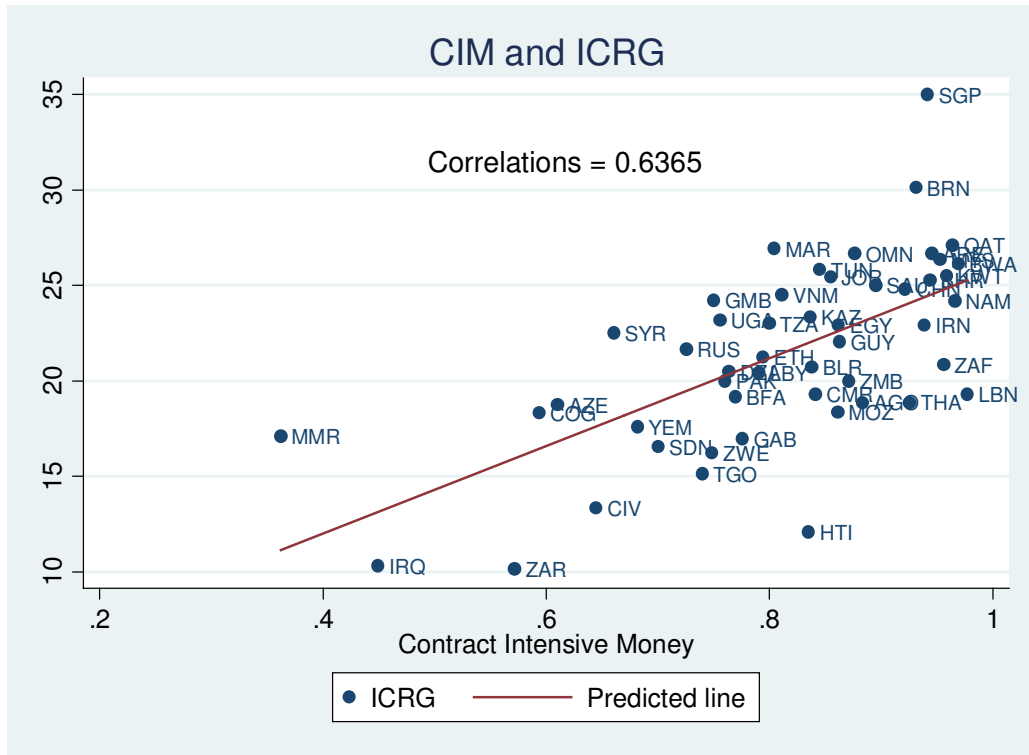


Figure A.1 CIM and ICRG (2006)



Table A.1 Time Horizon to Property Rights Institutions (Bootstrapped)

DV: $\Delta$ .Property rights institutions	
CIM(t-1)	-0.057*** (0.012)
$\Delta$ . Time Horizon	-0.312 (0.359)
$\Delta$ . Development	-0.002 (0.002)
$\Delta$ . Market Size	-0.014 (0.101)
$\Delta$ . Oil	0.070 (0.053)
$\Delta$ . Interest rates	-0.027 (0.029)
$\Delta$ . Government Consumption	-0.065 (0.073)
$\Delta$ . Political Instability	-0.001 (0.001)
Time Horizon (t-1)	-0.057 (0.063)
Development (t-1)	0.001** (0.000)
Market Size (t-1)	0.001 (0.001)
Oil (t-1)	-0.016 (0.013)
Interest rates (t-1)	-0.009 (0.015)
Government Consumption (t-1)	-0.040** (0.018)
Political Instability (t-1)	-0.001 (0.001)
Constant	0.043** (0.022)
$R^2$	0.07
$N$	883

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A.2 Property Rights Institutions and FDI Inflows (Bootstrapped)

DV: $\Delta$ .FDI inflows	
FDI Inflows (t-1)	-0.455*** (0.036)
$\Delta$ .Institutions (CIM)	-0.544 (1.476)
$\Delta$ .Development	-0.137 (0.119)
$\Delta$ .Market Size	-20.154*** (4.212)
$\Delta$ .Growth Rate	0.044*** (0.011)
$\Delta$ .Government Consumption	0.719 (1.945)
$\Delta$ . Oil	-2.162 (2.033)
$\Delta$ .Political Instability	-0.079* (0.043)
Institutions (CIM) (t-1)	1.310*** (0.412)
Development (t-1)	0.075*** (0.017)
Market Size (t-1)	0.312*** (0.042)
Growth Rate (t-1)	0.069*** (0.013)
Government Consumption (t-1)	0.409 (0.567)
Oil (t-1)	0.180 (0.535)
Political Instability (t-1)	-0.071* (0.040)
Constant	-4.262*** (0.777)
$R^2$	0.23
$N$	2,064

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A.3 Time Horizon, Property Right Institutions, and FDI Inflows (Bootstrapped)

DV: $\Delta$ .FDI Inflows	
FDI Inflows (t-1)	-0.447*** (0.048)
$\Delta$ .Institutions by Time Horizon	-5.564 (6.610)
$\Delta$ .Development	-0.271 (0.354)
$\Delta$ .Market Size	-13.855** (5.824)
$\Delta$ .Growth Rate	0.063*** (0.016)
$\Delta$ .Government Consumption	1.091 (3.229)
$\Delta$ .Oil	-2.780 (3.011)
$\Delta$ . Political Instability	0.031 (0.082)
Institutions by Time Horizon (t-1)	2.341 (2.168)
Development (t-1)	0.100*** (0.035)
Market Size (t-1)	0.416*** (0.067)
Growth Rate(t-1)	0.087*** (0.019)
Government Consumption (t-1)	0.934 (0.579)
Oil (t-1)	0.348 (0.631)
Political Instability (t-1)	0.015 (0.062)
Constant	-7.167*** (2.007)
$R^2$	0.23
$N$	777

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A.4 Sample Countries

Country	Year		Country	Year	
Afghanistan	2007	2008	Korea, Rep.*	1977	1987
Algeria*	1971	2008	Kuwait*	1987	2007
Angola*	1996	2008	Kyrgyz Republic	1996	2004
Argentina	1971	1982	Lao PDR*	1990	2008
Azerbaijan*	1996	2008	Lebanon*	2003	2008
Bahrain	1982	2008	Lesotho*	1981	2008
Bangladesh*	1975	2008	Liberia*	1975	2005
Belarus*	1995	2008	Libya*	2001	2008
Benin*	1971	1990	Madagascar*	1971	1992
Bhutan	2004	2006	Malawi*	1971	1993
Bolivia*	1971	1981	Malaysia*	1971	2008
Bosnia and Herzegovina	1999	2008	Maldives	1997	2007
Botswana*	1977	2008	Mali*	1972	1991
Brazil	1976	1984	Mauritania*	1971	2008
Brunei Darussalam	2002	2006	Mexico*	1971	1999
Burkina Faso*	1971	2008	Morocco*	1971	2008
Burundi*	1986	2004	Mozambique*	1985	2008
Cambodia	1996	2008	Namibia	1994	2008
Cameroon*	1978	2008	Nepal*	1973	2007
Cape Verde	1987	1989	Nicaragua	1971	1983
Central African Republic*	1978	2008	Niger*	1971	1999
Chad*	1978	2008	Nigeria*	1971	1998
Chile*	1973	1989	Oman*	1975	2008
China*	1986	2008	Pakistan	1971	2007
Comoros	1988	2003	Paraguay	1971	1988
Congo Democratic Republic of	1971	2008	Peru*	1971	2000
Congo, Rep.*	1979	2008	Philippines*	1971	1985
Cyprus	1981	1982	Portugal	1972	1975
Djibouti	1992	2008	Qatar	2002	2008
Ecuador	1977	2001	Rwanda*	1971	2005
El Salvador	1977	1983	Samoa	1984	2008
Equatorial Guinea	1987	2008	Saudi Arabia	1987	2008
Eritrea	1998	2008	Senegal*	1971	1999
Ethiopia*	1993	2008	Seychelles	1977	2008
Fiji	1971	2008	Sierra Leone*	1971	1997
Gabon*	1979	2008	Singapore*	1971	2008
Gambia*	1979	2008	South Africa	1971	2008
Georgia*	1998	2003	Spain	1972	1976
Ghana*	1976	1992	Sri Lanka	1977	1988

Table A.4 (continued)

Country	Year		Country	Year	
Greece*	1971	1973	Sudan	1973	2008
Grenada	1983	1983	Suriname	1980	1990
Guatemala	1982	1985	Swaziland*	1975	2008
Guinea	1992	2005	Syrian Arab Republic*	1973	2008
Guinea-Bissau*	1987	2003	Tajikistan*	1999	2008
Guyana	1978	2008	Tanzania*	1990	2008
Haiti	1993	2007	Thailand*	1976	2007
Honduras	1975	1981	Togo*	1975	2008
Indonesia*	1982	1998	Tonga	1990	2008
Iran	1971	2008	Tunisia*	1977	2008
Iraq	2005	2008	Turkey	1980	1982
Ivory Coast*	1976	2008	Uganda*	1993	2008
Jordan*	1977	2008	Uruguay*	1973	1984
Kazakhstan	1998	2008	Zambia*	1971	2008
Kenya*	1971	1997	Zimbabwe*	1980	2008

\*: countries which appear in both regressions

Table A.5 Descriptive Statistics

Variable Name	Observations	Mean	Standard Deviation	Min.	Max
Logged FDI	2073	3.42	3.12	-8.47	12.07
CIM	2102	0.75	0.15	0.24	1.00
Time Horizon	1450	0.04	0.04	0.00	0.36
ICRG	1063	20.24	6.05	2.64	36.67
Development	2102	3.59	7.54	0.11	129.32
Interest Rates	1443	0.07	0.26	-0.97	6.05
Market	2102	15.63	1.68	11.03	21.00
Growth Rate	2102	4.17	6.87	-50.25	106.28
Government Consumption	2102	0.12	0.09	0.01	0.68
Natural Resource	2102	0.07	0.15	0.00	1.06
Political Instability	2102	0.86	1.72	0.00	26.19
Institutions by Time Horizon	883	0.74	0.05	0.34	0.79
Institutions Not by Time Horizon	883	0.74	0.09	0.36	1.18

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## **BIOGRAPHICAL SKETCH**

Chungshik Moon received his Bachelor of Arts degree in Political Science and Diplomacy from Yonsei University in 2003 and his Master of Science from Florida State University in 2008. His research is concerned with how domestic and international institutions affect governments' policy choices with a particular interest in the causes and effects of economic globalization and development, institutional performance in autocracies, and quantitative methodology. His publication appears in *International Studies Quarterly* and the *Journal of East Asian Studies*. Chungshik joins the School of Politics and International Relations at Australian National University as a lecturer (assistant professor) in July 2014.